IN THE GENERAL DIVISION OF
THE HIGH COURT OF THE REPUBLIC OF SINGAPORE

[2024] SGHC 15

Suit No 1041 of 2020

Between

Golden Pacific Shipping & Holdings Pte Ltd

… *Plaintiff*

And

Arc Marine Engineering Pte Ltd

… *Defendant*

JUDGMENT

[Bailment — Negligence]
[Damages — Mitigation — Tort]
[Tort — Negligence — Duty of care]
[Tort — Negligence — Damages]

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Golden Pacific Shipping & Holdings Pte Ltd
v
Arc Marine Engineering Pte Ltd

[2024] SGHC 15

General Division of the High Court — Suit No 1041 of 2020
Lee Seiu Kin J
11–14, 26–28 April, 28 July 2023

19 January 2024 Judgment reserved.

Lee Seiu Kin J:

Introduction

1 In the present suit, the plaintiff is a ship owner that chartered its vessel to a bareboat charterer. During the charter period, the main engine of the vessel suffered damage. The manager of the vessel contracted with the defendant repairer to repair the main engine. Upon redelivery of the vessel to the plaintiff, the plaintiff was of the view that the repair works were deficient. As there is no contractual relationship between the plaintiff and defendant, the plaintiff brought this action in tort and bailment against the defendant.

Facts

The parties

2 The plaintiff is a Singapore-incorporated company in the business of shipowning and chartering.[1] It is undisputed that the plaintiff was the registered owner of the motor tanker vessel, the "Bravely Loyalty", at all material times (the "Vessel").[2] The Vessel is registered in Singapore, classed with Bureau Veritas ("BV") and carries IMO No 9582726.[3] The defendant is a company incorporated in Singapore and in the business of, *inter alia*, marine offshore engineering repairs and ship engine repairs.[4]

Background to the dispute

3 On 9 June 2017, the plaintiff chartered the Vessel to Bravely International Pte Ltd ("Bravely") under a bareboat charter (the "GP-BI Charterparty").[5] The terms of the GP-BI Charterparty comprise of a modified version of the BIMCO Standard Bareboat Charter "BARECON 2001" as well as various rider clauses (the "Charterparty Contract").[6] The GP-BI Charterparty

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1 Affidavit of Evidence-in-Chief ("AEIC") of Lee Sai Kit dated 20 January 2023 ("Lee's AEIC") at para 4.

2 Statement of Claim dated 16 December 2020 ("SOC") at para 1; Defendant's closing submissions dated 23 June 2023 ("DCS") at para 1; Plaintiff's closing submissions dated 23 June 2023 ("PCS") at para 70; Transcript (13 April) at p 43, ln 20 to p 44, ln 5.

3 AEIC of Thomas Douglas Wilson dated 21 February 2023 ("Wilson's 1st AEIC") at p 8 para 2.2.

4 Defence (Amendment No. 1) dated 1 November 2021 ("Defence") at para 5.

5 Lee's AEIC at para 7; Agreed Chronology dated 4 April 2023 ("AC") at p 1.

6 AIEC of Anujit Prasad dated 20 January 2023 ("Anujit's AEIC") at pp 62–77.

was for a term of 24 months plus an additional six months at Bravely's election.[7] The Vessel was delivered into Bravely's service on or about 19 September 2017.[8] MSI Ship Management Service Pte Ltd ("MSI") contracted with Bravely to act as the ship managers of the Vessel.

4 On 15 April 2019, when the Vessel was *en route* from Tabangao, Philippines to Singapore, she suffered damage to her main engine (the "Main Engine").[9] For context, the Main Engine utilises a nine-cylinder SXD MAN B&W 9L 32/40 4-stroke medium speed trunk diesel engine which was built under licence from MAN by Shaanxi Diesel Heavy Industry Co Ltd.[10] MSI approached the defendant to quote for repair works, and on 22 April 2019, MSI confirmed the appointment of the defendant for the scope of repair works quoted.[11]

5 On 23 April 2019 the Vessel arrived at the Singapore Anchorage for the repairs to be executed.[12] That same day, two of the defendant's service engineers boarded the Vessel to carry out an inspection of the Main Engine. The inspections were completed on 25 April 2019.[13] Thereafter, from 26 April 2019, the defendant commenced repairs on the Vessel and its Main Engine.[14] On 13 July 2019, the Vessel was shifted to the Offshore Marine Centre Repair

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7 DCS at para 1.

8 Lee's AEIC at para 7.

9 Lee's AEIC at para 8; AC at p 1.

10 Wilson's 1st AEIC at para 2.3.

11 Lee's AEIC at para 10; AC at p 2; DCS at para 3.

12 Lee's AEIC at para 9; AC at p 1.

13 AC at p 2.

14 AC at p 2.

Berth of ST Marine Tuas Shipyard, where the repairs continued. Chief of the repair works was the replacement of the existing crankshaft with a new crankshaft (the "Replacement Crankshaft"). This replacement process is also known as "crankshaft renewal" and was executed by the defendants between 10 and 12 July 2019.[15] The Replacement Crankshaft had been procured by MSI and was then installed by the defendant. Another significant aspect of the repair works was the fitting of the torsional vibration damper (the "TVD") to the Replacement Crankshaft on 16 July 2019.[16] Based on the various service reports provided by the defendant, the other items of repair carried out by the defendant were as follows:[17]

(a) The cylinder heads of the Main Engine (a total of nine units) were removed from the Vessel for repairs and subsequently reinstalled.

(b) The pistons and connecting rods (a total of nine units) were removed from the Vessel for repairs and subsequently reinstalled.

(c) All the liners from the engine block were removed from the Vessel for repairs and subsequently reinstalled.

(d) The liner top landing rings (a total of nine units) were removed and repaired.

(e) The air starting valves (a total of nine units) were dismantled, cleaned, inspected, and some units were renewed.

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15 AC at p 2; Anujit's AEIC at para 47.

16 Anujit's AEIC at para 49.

17 Anujit's AEIC at AP-14; Agreed Bundle Volume 1 ("1AB") 127–139; Lee's AEIC at para 14.

(f) The safety valves (a total of nine units) were removed and sent for standard overhauling, and subsequently reassembled to their respective cylinder heads.

(g) The indicator cocks (a total of nine units) were dismantled, cleaned, inspected and subsequently renewed.

(h) The fuel injectors (a total of nine units) were sent to the defendant's workshop for overhauling, and some units were renewed.

(i) The fuel pumps (a total of nine units) were removed, cleaned and reinstalled with new gasket and O-rings.

(j) The air-cooler and lube-oil cooler were dismantled from the Main Engine and sent to the defendant's workshop for standard overhauling before being reinstalled.

6 Between 9 and 17 August 2019, the Vessel underwent various sea trials to test its seaworthiness.[18] It is undisputed that a sea trial was conducted on both 10 August 2019 and on 16 August 2019 (respectively, the "Second Sea Trial" and "Third Sea Trial"). However, while the plaintiff considers the attempted sea trial on 9 August 2019 to be a sea trial, the defendant merely considered it as "testing".[19] For ease of reference, this will simply be described as the "First Sea Trial". I shall describe the First Sea Trial, Second Sea Trial and Third Sea Trial as the "Sea Trials" collectively. During the First Sea Trial, the exhaust temperature of the Main Engine cylinder #6 was very high, and subsequently, the turbocharger insulation of the Main Engine caught fire. The Main Engine

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18 AC at p 2.

19 DCS at para 33.

was stopped to put out the fire and the ship subsequently returned to the Offshore Marine Centre for inspection and repair.[20] At the Second Sea Trial, among other things, the Main Engine was run on idle and subsequently tested on increasing loads, up to full speed. When the Main Engine load hit 80% of the capacity, it had to temporarily stop as the turbocharger insulation caught fire. However, the test run continued thereafter, and eventually, the load was increased to 100% again.[21] During the Third Sea Trial, the Main Engine was once again run at various loads, including at a load of 100% for an hour.[22]

7 By 20 August 2019, the defendant and its subcontractors had completed the repair works, and on the following day, MSI acknowledged that all relevant repairs had been completed.[23] On 31 August 2019, Bravely redelivered the Vessel to the plaintiff.[24] At the time of redelivery, the plaintiff found the Vessel to be in an allegedly unsatisfactory state. Therefore, the plaintiff arranged for Metalock Engineering (Qingdao) Ltd ("Metalock"), to inspect the Main Engine crankpin bearings. These inspections were conducted from 12 to 16 September 2019,[25] following which Metalock produced a service report dated 17 September 2019 (the "Metalock Report"). In particular, the Metalock Report stated that they "found scratches on most main journals which

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20 Anujit's AEIC at para 74; Lee's AEIC at paras 18–19.

21 Anujit's AEIC at paras 80–90; Lee's AEIC at paras 21–23.

22 Anujit's AEIC at pp 720–728.

23 Anujit's AEIC at paras 100–101.

24 Lee's AEIC at para 47; AC at p 2.

25 AC at p 2.

is abnormal phenomena, especially for new crankshaft".[26] The Vessel continued to remain in Singapore to undergo repairs to its generators.[27]

8 On 26 September 2019, the plaintiff entered into a bareboat charter of the Vessel with Joint Merchants Corporation Limited ("JMC"), which is a subsidiary and/or related company of Eversea Shipping. The Vessel was delivered to JMC on 30 September 2019. The plaintiff authorised JMC to arrange for the "necessary rectification works" of the Vessel at Yuanye Shipyard in China, to be carried out by Dalian Shunzhou Ship Maintenance Co Ltd ("Dalian Shunzhou").[28] According to the plaintiff, it was agreed that all of the costs and expenses of the rectification works would be borne by JMC in the first instance, and thereafter set-off against the charter hire which JMC was obliged to pay the plaintiff under the bareboat charterparty. Further, JMC's obligation to pay the charter hire would only begin when the rectification works had been successfully completed and the Vessel left the shipyard and started operating.[29]

9 On 27 November 2019, the Vessel commenced its voyage to Vietnam, and then to Yuanye Shipyard in China for the rectification works.[30] Crucially, on 9 December 2019, it was discovered that the engine-driven lubricating oil pump (the "lube oil pump") had failed.[31] It is not clear when exactly the lube oil pump failed, but according to a report prepared by Aqualis Braemar, the hull

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26 Lee's AEIC at para 48 and p 144.

27 Lee's AEIC at para 51; AC at p 3.

28 Lee's AEIC at paras 90–91; AC at p 3.

29 Lee's AEIC at paras 92–93.

30 Lee's AEIC at para 56; AC at p 3.

31 Transcript (27 April 2023) at p 142 ln 2–6.

insurer's appointed surveyor,[32] dated 20 January 2020 ("AB's 20 January Report"), "[t]he pump was reported damaged on the fourth day after the vessel's departure", *ie*, 1 December 2019.[33]

10 The Vessel arrived at Zhoushan on 16 December 2019.[34] Thereafter, on 27 December 2019, the Vessel entered Yuanye Shipyard and rectification works were carried out by Dalian Shunzhou from 9 March 2020 to 7 April 2020.[35] Between 14 and 15 March 2020, Trade-wind Marine Surveyors & Consultants Ltd ("Trade-wind") carried out a condition survey of the Main Engine to find out the cause of the issues experienced by the Main Engine. This was done at the request of the plaintiff. The condition survey resulted in a report issued on 15 April 2020 (the "Trade-wind Report").[36] On 24 March 2020, Aqualis Braemar produced a second report on the damage to the Main Engine, based on a survey conducted on 10 and 15 March 2020. Among other things, it was reported that the "[TVD] [was] damaged beyond repair" – approximately 60% of the flat spring packs were fragmented, 30% of the inner stars were damaged, intermediate pieces on the inner surface were damaged, and the bearing bushes were separated from the flange/side plates.[37] The TVD was also sent to its maker, Geislinger, for assessment. In its report dated 17 March 2020 (the "Geislinger Report"), Geislinger similarly concluded that "[t]he [TVD] [was] not useable any more", and that "[a]ll parts except clamping ring need[ed]

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32 Lee's AEIC at para 42.

33 Agreed Bundle Volume 2 ("2AB") 1104.

34 Lee's AEIC at para 60; AC at p 3.

35 Lee's AEIC at para 96; AC at p 3.

36 Lee's AEIC at para 69; AC at p 3.

37 2AB1123–1124.

to be replaced by new parts".[38] A sea trial of the Main Engine was subsequently completed.[39] On 27 April 2020, the Vessel left Yuanye Shipyard, upon JMC's payment of the rectification costs to Dalian Shunzhou.[40]

11 On 29 October 2020, the plaintiff commenced the present suit against the defendant in negligence for allegedly defective repair work.[41] It is undisputed that there is no contract between the plaintiff and defendant.[42]

Expert witnesses

12 The plaintiff relies on the expert evidence of Mr Bindra Jaskirat Singh ("Mr Singh"). Mr Singh is the sole proprietor of Eco Marine Services, a marine consultancy services firm. He has undertaken damage and repair inspection of various main engines, including those manufactured by MAN (*ie*, the maker of the Main Engine), and has carried out damage and repair inspections of more than 200 ships.[43] The defendant called Mr Thomas Douglas Wilson ("Mr Wilson") as its expert witness. Mr Wilson is employed as a marine consultant at ABL Energy & Marine Consultants Pte Ltd, a company which provides technical engineering and consultancy services to the marine and offshore energy industries. He is a chartered marine engineer with over 30 years' experience as a surveyor and consultant.[44]

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38 Lee's AEIC at para 72, p 194; AC at p 3.

39 Lee's AEIC at para 96; AC at p 3.

40 Lee's AEIC at para 97.

41 Writ of Summons to HC/S 1041/2020 dated 29 October 2020 ("WOS").

42 DCS at para 6.

43 AEIC of Bindra Jaskirat Singh dated 22 February 2023 ("Singh's 1st AEIC") at para 1 and p 121.

44 Wilson's 1st AEIC at para 1 and 4.

13 On 2 March 2023, Mr Singh and Mr Wilson held an experts' caucus to discuss the various technical factual issues that are in dispute. This resulted in a joint memorandum dated 11 March 2023 setting out areas of agreement and disagreement for each of the issues (the "Joint Memorandum").[45]

The parties' cases

14 The plaintiff claims that the defendant owes the plaintiff a duty of care in negligence to exercise all reasonable skill and care in carrying out the repair works on the Vessel and Main Engine.[46] In the alternative, the plaintiff alleges that it bailed the Vessel to Bravely, and Bravely sub-bailed the Vessel to the defendant. As sub-bailee, the defendant owes a duty of bailment to the plaintiff to take reasonable care of the Vessel during the time that the Vessel was in the defendant's physical possession.[47] In its Statement of Claim, the plaintiff asserted that the repair of the Main Engine was deficient in various respects, which can be divided into five factual issues (the "Defective Works"):[48]

(a) **Issue 1:**

(i) The defendant failed to ensure that the correct orifice plug (with 10mm diameter bore) was placed into the free-end side of the crankshaft and/or failed to remove this plug. This resulted in lubricating oil starvation of and the consequent complete destruction of the TVD.

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45 AEIC of Thomas Douglas Wilson dated 20 March 2023 ("Wilson's 2nd AEIC") at para 7 and pp 80–84.

46 SOC at para 4.

47 PCS at para 40; Reply (Amendment No. 1) dated 29 November 2021 ("Reply") at para 8.

48 SOC at para 6.

(ii) The defendant failed to ensure that sufficient lube oil was supplied to the TVD.

(b) **Issue 2:** The Main Engine was incapable of operating satisfactorily or stably (sandpaper was used in the Main Engine control during the Sea Trials).

(c) **Issue 3:** The majority of the main journals suffered from severe scratches.

(d) **Issue 4:**

(i) The crankshaft was misaligned.

(ii) The defendant erroneously observed and/or recorded the crankshaft deflection measures.

(iii) The defendant failed to ensure that the crankshaft deflection was within allowable limits.

(iv) There had been improper and incomplete installation of the crankshaft with deflection of -0.16 mm, which exceeded the maximum allowable limits of +/- 0.14 mm set by the Main Engine maker. This caused excessive wear to the bearings of the Vessel.

(e) **Issue 5:** The lube oil filter and sump of the Main Engine were replete with a substantial number of metal particles.

15 Further, these defects relate to repairs conducted by the defendant under its scope of works. By reason of the defendant's deficient repairs, the plaintiff has suffered loss and damage and has been put to expense, in terms of:

(a) rectification and repair works undertaken by the plaintiffs; (b) management costs during the Vessel's downtime between 31 August 2019 and 26 April 2020 (the "Downtime"); (c) crew wages and ship management expenses during the Downtime of the Vessel; (d) agency fees during the Downtime of the Vessel; (e) supplies during the Downtime of the Vessel; (f) insurance during the Downtime of the Vessel; and (g) loss of charter income during the Downtime of the Vessel.[49] This amounts to a total loss of US$3,144,785.21.[50]

16 Based on the foregoing, the plaintiff claims:[51]

(a) the sum of US$3,144,785.21 and/or such sum as the court deems fit;

(b) or, in the alternative, for damages to be assessed;

(c) a declaration that the plaintiff is entitled to be indemnified and to be kept fully indemnified from and against, and/or a contribution from the defendant for any and all liabilities (present or contingent), claims, demands, losses, expenses or damages of whatsoever nature incurred by and/or to be incurred by the plaintiff and/or asserted against the plaintiff arising out of or in connection with the repairs, and/or in consequence of claims made and/or to be made against the plaintiff arising out and/or in connection with the repairs;

(d) an indemnity against all liabilities (present or contingent), claims, demands, losses, expenses or damages of whatsoever nature

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49 SOC at para 8.

50 *Ibid*.

51 SOC at pp 5–6; WOS.

incurred by and/or to be incurred by the plaintiff and/or asserted against the plaintiff arising out of or in connection with the Incident, and/or in consequence of claims made and/or to be made against the plaintiff arising out and/or in connection with the repairs;

(e) interest pursuant to s 12 of the Civil Law Act;

(f) costs; and

(g) such further or other relief as the court deems just.

17 Conversely, the defendant avers that it does not owe a duty of care to the plaintiff either in negligence or in bailment. The defendant claims that it is not responsible for the alleged Defective Works as they pertain to matters outside its overall scope of works. Further or in the alternative, the alleged Defective Works were not caused by the defendant. In addition, the defendant acted reasonably in carrying out its repair works.[52] In particular, at the trial, it became clear that the main factual dispute centres on whether the defendant had left an orifice plug or blank plug inside the free-end of the Replacement crankshaft. The defendant avers that the Replacement Crankshaft was equipped with the correct plug, *ie*, an orifice plug.[53] In the alternative, even if the incorrect blank plug was fitted, the defendant avers that it is entitled to rely on third parties, such as MSI, to ensure that the Replacement Crankshaft was free of defects, as well as the classification society of the Vessel, BV, which endorsed a "Certificate of Product Conformity for Crankshaft" (the "Certificate of

52 Defence at para 8.

53 DCS at para 45.

Conformity") which declared that the product was "manufactured, tested and examined in conformity with the approved documentation".[54]

18 The defendant submits that even if it is found to be liable, the plaintiff's claim for damages must fail because the plaintiff did not suffer any loss as a result of the defendant's breach of duty.[55] However, if this argument is not accepted, the defendant also claims that the plaintiff failed to take reasonable steps to mitigate its own losses. In particular, the plaintiff did not take prompt steps to repair the Main Engine when the Vessel was redelivered to it.[56] Further, it was unreasonable to sail the Vessel to China for repairs.[57] The defendant also refers to the defendant's Standard Sales Order Terms & Conditions, which, according to Mr Anujit Prasad ("Mr Anujit"), the general manager of the defendant, constitutes the repair contract between the defendant and MSI (the "AME-MSI Repair Contract"). The defendant submits that it is entitled to rely on provisions in the of the which exclude and/or limits its liabilities.[58]

Issues to be determined

19 The following issues arise for my determination.

(a) Firstly, whether the defendant owes a duty of care in tort to the plaintiff.

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54 DCS at paras 47, 307.

55 DCS at para 321.

56 DCS at para 368.

57 DCS at para 371.

58 DCS at para 390.

(b) Secondly, whether the defendant owes a duty of care in bailment to the plaintiff.

(c) Thirdly, whether the defendant has breached its duty by effecting any of the Defective Works, and if so, whether the breach(es) caused damage to the plaintiff.

(d) Fourthly, whether the plaintiff had mitigated its losses by conducting the rectification works economically and expediently.

(e) Fifthly, if the defendant is liable to the plaintiff in negligence, the extent of damages that the plaintiff is entitled to.

Duty of care in negligence

Relevant legal principles

20 The legal requirements for establishing an action in the tort of negligence are trite. First, the defendant must owe a duty of care to the plaintiff. Second, the defendant must have breached this duty of care. Third, the defendant's breach must have caused the damage suffered by the plaintiff; and in addition, the resulting damage should not be too remote (*The Law of Torts in Singapore* (Academy Publishing, 2016) ("*The Law of Torts in Singapore*") at para 03.006).

21 The test for the imposition of a duty of care in negligence is set out in the seminal case of *Spandeck Engineering (S) Pte Ltd v Defence Science & Technology Agency* [2007] 4 SLR(R) 100 ("*Spandeck*"). It is a two-stage test comprising of, first, proximity and, second, policy considerations, which are together preceded by the preliminary requirement of factual foreseeability

(*Spandeck* at [73]). Factual foreseeability refers to reasonable foreseeability and "will almost always be satisfied, simply because of its very nature and the very wide nature of the 'net' it necessarily casts" (*Spandeck* at [75] citing *Sunny Metal & Engineering Pte Ltd v Ng Khim Ming Eric* [2007] 1 SLR(R) 853 at [55]). The first stage requires sufficient legal proximity, which is determined by the closeness of the parties' relationship, including physical, circumstantial and causal proximity, supported by the twin criteria of the defendant's voluntary assumption of responsibility and the plaintiff's actual reliance upon the defendant (*Spandeck* at [77]–[81]). Where there is factual foreseeability and legal proximity, a *prima facie* duty of care arises. The second stage entails weighing policy considerations to determine whether the *prima facie* duty should be negated or limited (*Spandeck* at [83]).

22 Crucially, the Court of Appeal in *Spandeck* stressed that the test was to be applied incrementally, "in the sense that when applying the test in each stage, it would be desirable to refer to decided cases in analogous situations to see how the courts have reached their conclusions in terms of proximity and/or policy" (*Spandeck* at [73]). Analogous precedents, which determine the current limits of liability, make it easier for the later court to determine whether to extend its limits. However, in a novel situation, the court may extend liability where it is just and fair to do so, taking into account the relevant policy consideration against indeterminate liability against a tortfeasor (*Spandeck* at [73]).

The decision

23 The first issue for my determination is whether the defendant owes the plaintiff a duty of care in tort in its repair of the Vessel. The plaintiff argues that there is a duty of care and that the present case is "on all fours" with the decision in *Jet Holding Ltd and others v Cooper Cameron (Singapore) Pte Ltd and*

another [2005] 4 SLR(R) 417 ("*Jet Holding (HC)*"), which was affirmed by the Court of Appeal in *Jet Holding Ltd and others v Cooper Cameron (Singapore) Pte Ltd and another and other appeals* [2006] 3 SLR(R) 769 ("*Jet Holding (CA)*").[59] Conversely, the defendant submits that the present case is analogous to *Man B&W Diesel S E Asia Pte Ltd and another v PT Bumi International Tankers and another appeal* [2004] 2 SLR(R) 300 ("*PT Bumi (CA)*"), where the Court of Appeal declined to find a duty of care in negligence.[60]

24 I set out the salient facts of *PT Bumi (CA)* and *Jet Holding (HC).*

25 In *PT Bumi (CA),* the respondent ("Bumi") contracted with an engineering company ("MSE") to build an oil tanker. It was clearly contemplated in the main contract that MSE would source the engine of the vessel from a third party. MSE obtained the engine from the first appellant ("MBS"), a Singapore company which sold and serviced engines manufactured by its UK parent company, the second appellant. There was no direct contractual relationship between Bumi and MBS (*PT Bumi (CA)* at [2]). Within a few weeks of the delivery of the vessel, the engine gave trouble. After approximately three years of the delivery of the vessel, the engine broke down completely (*PT Bumi (CA)* at [3]). Bumi commenced an action in tort against the appellants on the ground that they had breached a duty of care which they owed to Bumi. Bumi claimed for its losses, including the cost of the engine and the loss of rental income which it would have earned from the charter (*PT Bumi (CA)* at [4]). The Court of Appeal reversed the finding of the judge below that MBS owed Bumi a duty of care. The Court of Appeal recognised that MBS knew that the engine

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59 PCS at para 2.

60 DRS at para 150.

supplied under the subcontract would be fitted onto the vessel which was being built by MSE for Bumi. The specifications for the engine were known to MBS, and MBS knew that Bumi required the vessel for its business. MBS would also have realised that any defect in the engine would render the vessel inoperable. Therefore, *prima facie*, such circumstances could give rise to a duty of care (*PT Bumi (CA)* at [35]). However, the Court of Appeal declined to impose a duty of care against parties' express contractual arrangements. Bumi had made a deliberate choice not to have a direct contractual relationship with MBS (*PT Bumi (CA)* at [38]). Under the main contract, Bumi made MSE solely responsible for any defect that could arise in respect of the vessel, including the engine. For instance, cl 17.1 stated that "[MSE] shall be fully responsible for any part of work performed or to be performed by his sub-contractors and for the acts and omissions of his sub-contractors …" and cl 22 provided that "[MSE] shall … [maintain] complete control over its employees and all of its sub-contractors". In addition, the main contract contained a limited warranty and several limitation clauses (*PT Bumi (CA)* at [36]–[37]). By entering into the main contract with MSE on these terms, Bumi had "committed itself to looking to MSE for redress". Therefore, Bumi had relied on MSE alone. To then infer a duty of care on MBS would run counter to the specific arrangement that Bumi had chosen to make with MSE (*PT Bumi (CA)* at [48]).

26 In *Jet Holding (HC)*, the first plaintiff ("JHL") became the owner of a drill ship, the *Energy Searcher*, in July 1999. Prior to that, the second plaintiff ("JSL") was the registered owner. Upon JHL becoming the owner, JHL chartered the *Energy Searcher* to JSL under a bareboat charter. The third plaintiff ("JDL") was at all material times the manager of the *Energy Searcher* (*Jet Holding (HC)* at [2]). The first defendant ("Cameron") was looked upon as the original equipment manufacturer. The second defendant ("Stork") was a

Cameron-approved contractor (*Jet Holding (HC)* at [3]). Earlier on, in 1997, an inspection revealed that two slip joints on the *Energy Searcher* were unfit for use. They were then sent to Cameron's approved contractor ("VDH") to be dissembled and refurbished. Cameron subcontracted the refurbishment of a spare slip joint to Stork, which was fabricated from "discarded" components from the original two slip joints. Thereafter, the spare slip joint was returned to the *Energy Searcher* in November 1998 (*Jet Holding (HC)* at [9]). Subsequently, in November 2000, the *Energy Searcher* was time chartered to an oil exploration company (*Jet Holding (HC)* at [4]). In March 2001, a decision was made to replace the primary slip joint with the spare slip joint. In the course of installation, the spare slip joint fractured and broke into two, which resulted in the loss of other drilling equipment. It was later discovered that the wall thickness of riser box of the spare slip joint (which connects the upper end of the slip joint to the ship) had been inadequate (*Jet Holding (HC)* at [6] and [12]). Among other things, the plaintiffs sued the defendants in negligence. The High Court held that Cameron owed a duty of care to the owner, JHL (*Jet Holding (HC)* at [60]), and stated the following:

> Even though JSL is the contracting party, a separate duty of care in tort could arise. If a separate duty does arise, the question is not whether Cameron failed to carry out its duty under the contract but whether it was in breach of its common law duty of care towards JSL or a third party like JHL. *Whilst the contract might be material to the incidence of liability as between those who are in a contractual relationship with each other, it does not always have the effect of negativing a duty of care owed by the defendants to JSL or JHL.* A duty of care exists where the threefold test in *Caparo Industries Plc v Dickman* [1990] 2 AC 605 is satisfied. The existence of a duty of care at common law depends on foreseeability that a failure to take reasonable care may cause harm of a particular kind to another person, a sufficient degree of proximity between the wrong doer and that other person, and a recognition that it would be fair, just and reasonable in all the circumstances to impose a duty of care on the wrongdoer.

> [emphasis added]

In particular, the High Court held that the existence of the contract between JSL and Cameron did not have the effect of negativing a duty of care owed by Cameron to JHL, the owner.

27 The High Court also held that Stork owed the defendants a duty of care (*Jet Holding (HC)* at [129]). I reproduce the relevant part of the judgment:

> Whether a duty of care was owed to JSL is a question of law. Whether Stork was negligent and thereby breached such a duty of care as it owed is a question of fact. *I have no doubt that Stork owed JSL and JHL a duty of care in tort.* The parties were in a relationship of close proximity. At the material time, JDL occupied shared premises with Stork and were aware that the latter were Cameron's authorised contractor. It is not disputed that it was JDL who had wanted Stork to undertake the refurbishment of the standby slip joint. At that time both jobs – the primary slip joint and standby slip joint – was handled by VDH. JSL initiated and consented to the switch and the appointment of Stork and consequently the components left over from the primary slip joint were sent from VDH to Stork. Chao Hick Tin JA in *Bumi International* said in [48] that the concept of proximity must always involve, at least in most cases, some degree of reliance. JSL were clearly relying on Stork to exercise appropriate skill and care in and about refurbishing a working slip joint out of the leftover components. Stork assumed responsibility to JSL by accepting the leftover components for the purpose of inspection and refurbishment albeit the contract was with Cameron. The harm was in my view foreseeable. It is in all the circumstances fair, just and reasonable to impose a duty of care upon them in respect of work designed to fashion out of the leftover components a standby slip joint.

28 On appeal, the Court of Appeal in *Jet Holding (CA)* affirmed the High Court's finding of duty of care. The Court of Appeal stated that it was "clear, on the facts, that Cameron owed a duty of care to the plaintiffs and had breached it. The Judge's analysis and reasoning in this regard was thorough and

persuasive and we have nothing useful to add" (*Jet Holding (CA)* at [129] and [131]).

29 Before I proceed with my analysis, I make a preliminary observation. As parties sought to argue whether the present case is more akin to *Jet Holding (HC)* or *PT Bumi (CA)*, they dedicated extensive submissions characterising the nature of the plaintiff's loss, *ie*, whether the loss was physical damage or pure economic loss. This was because Belinda Ang J (as she then was) distinguished the case in *Jet Holding (HC)* from that of *PT Bumi (CA)* on the basis that the latter concerned a claim for pure economic loss, whereas the former involved a claim for direct physical damage to property (*Jet Holding (HC)* at [128]). Further, in the case of *The "Sunrise Crane"* [2004] 4 SLR(R) 715 ("*The "Sunrise Crane"*"), the Court of Appeal similarly distinguished *PT Bumi (CA)* on the basis that that case concerned pure economic loss, emphasising that this was a "fundamental difference" (*The "Sunrise Crane"* at [35]). However, it must be stressed that this series of cases was decided prior to the decision in *Spandeck*, where the Court of Appeal laid down a *single* test for the establishment of a duty of care in tort. In doing so, the Court of Appeal eschewed the approach taken in some earlier Singapore cases, where a different test for a duty of care was applied depending on the nature of the loss suffered by the plaintiff (*NTUC Foodfare Co-operative Ltd v SIA Engineering Co Ltd and another* [2018] 2 SLR 588 ("*NTUC Foodfare*") at [1], citing *Spandeck* at [58] and [69]). In this regard, the exhortation of the Court of Appeal is instructive (*NTUC Foodfare* at [4]):

> *After Spandeck, therefore, it is no longer necessary to characterise the nature of the plaintiff's loss before examining whether a duty of care arises in tort.* Regrettably, it appears that old habits die hard. Parties continue to approach the issue of whether a duty of care arises through the lens of the nature of the plaintiff's loss. We have found it necessary to reiterate that

> the precise classification of the loss is immaterial: see *Animal Concerns Research & Education Society v Tan Boon Kwee* [2011] 2 SLR 146 ("*Animals Concerns Research*") at [32] and *ACB v Thomson Medical Pte Ltd* and others [2017] 1 SLR 918 ("*ACB*") at [82]. Nonetheless, in this appeal, both parties again proceeded on the basis that the classification of the loss was critical to whether a duty of care arose.
>
> [emphasis added]

30 Similarly, in *ACB*, the Court of Appeal stressed that the nature of the loss claimed is, at most, only a "very rough" proxy for whether a duty of care in tort ought ordinarily to arise in a given context (*ACB* at [82]). Instead, the focus should be on the facts of each case, and whether the twin requirements of proximity and policy are satisfied. Therefore, in my view, the nature of the loss ought not to be a significant factor when parties seek to analogise the present case to *PT Bumi (CA)* or *Jet Holding (CA).*

31 In my judgment, the defendant owes the plaintiff a duty of care in tort to take reasonable care in its repair of the Vessel. I proceed to apply the *Spandeck* test. The requirement of factually foreseeability is clearly satisfied: it was factually foreseeable that negligent repairs conducted on the Vessel by the defendant would cause the plaintiff to suffer loss. Next, I find that there was sufficient legal proximity between the parties for a duty of care to arise. First, the requisite level of physical proximity was satisfied, as the defendant carried out repairs on the Main Engine, which belongs to the plaintiff. Further, the employees of the defendant were physically on board the Vessel. Second, there was causal proximity between the defendant's negligence and the plaintiff's loss. It is apparent that any negligent repairs by the defendant would cause damage to the plaintiff's property, namely the Main Engine and the Vessel. Another relevant proximity factor is knowledge. In *Anwar Patrick Adrian and another v Ng Chong & Hue LLC and another* [2014] 3 SLR 761 ("*Anwar")*

(applied in *NTUC Foodfare* at [40] and [50]), the Court of Appeal recognised the following proximity factors: (a) the defendant's knowledge in relation to the plaintiffs (see *Anwar* at [148]–[149]); and (b) control over the situation giving rise to the risk of harm and the plaintiff's corresponding vulnerability (see *Anwar* at [154]). The relevant knowledge is *knowledge of the risk of harm*, or of reliance by the plaintiff, or of the vulnerability of the plaintiff (*NTUC Foodfare* at [40]). In the present case, I find that the defendant knew that negligence on its part carried the risk of causing a specific type of loss to a determinate class of persons, *ie*, the owner of the Vessel. From the beginning of the defendant's involvement with the Vessel, the defendant was aware that the plaintiff, as owners of the Vessel, was in the picture. When MSI first confirmed the defendant's appointment as the repairers for the Vessel, they informed Mr Anujit that "[b]ased on our discussion with *owner*, we would like to confirm order with you".[61] As such, the defendant would have known that if the repairs on the Main Engine were conducted negligently, the owner would suffer physical damage and consequential economic loss. For these reasons, we find that there was sufficient proximity between the plaintiff and defendant for a duty of care to arise. I am also satisfied that there are no policy factors that militate against the imposition of a duty of care owed by the defendant to the plaintiff.

32 The defendant argues that since the plaintiff had an existing contractual remedy against Bravely in relation to losses resulting from the defendant's allegedly negligent repair works, this should negate a duty of care in tort.[62] In this regard, I recognise that one relevant policy consideration is "the presence of a contractual matrix which has clearly defined the rights and liabilities of the

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61 Anujit's AEIC at p 83.

62 DCS at para 141(b).

parties and the relative bargaining positions of the parties" (*Spandeck* at [83]). That was the case in *PT Bumi (CA)*. However, the present case is distinguishable from *PT Bumi (CA)* because the contractual relationship between the plaintiff and defendant is not so confined (see *Jet Holding (HC)* at [128]). The Charterparty Contract contains various clauses that set out Bravely's obligations vis-à-vis the plaintiff. It was provided that Bravely shall "maintain the Vessel …. in a good state of repair" (per cl 10(a)(*i*)), "at their own expense and by their own procurement … whenever required, repair the Vessel during the Charter Period" (per cl 10(b)), "from time to time during the Charter Period replace such items of equipment as shall be so damaged or worn as to be unfit for use" and "procure that all repairs to or replacement of any damaged … parts or equipment be effected in such manner … as not to diminish the value of the Vessel" (per cl 10(f)).[63] The Vessel was also to be "redelivered to the [plaintiff] in the same or as good … condition and class as that in which she was delivered" (per cl 15).[64] Further, Bravely was to assume liability for and agreed to indemnify the plaintiff "from and against all costs of operating and maintaining the Vessel and replacing all parts … payable by [Braverly] … and all liabilities, losses, damages… arising from or in connection with … any failure on the part of [Braverly] to perform or comply with any of the terms of this Charter" (per cl 46.24).[65] These clauses simply set out the allocation of responsibility for maintaining the Vessel as between the plaintiff and Bravely. Unlike the contract in *PT Bumi (CA)*, which stated that MSE (the builder of the tanker) was to be fully responsible for the work performed by subcontractors (such as the defendant there, MBS), the Charterparty Contract does not even make mention

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63 Anujit's AEIC at p 65.

64 Anujit's AEIC at p 67.

65 Anujit's AEIC at p 76.

of potential repairers of the Vessel. Much less did Bravely commit to be wholly answerable and responsible for the acts and omissions of any repairers that it would contract with in relation to the Vessel. Therefore, none of the clauses in the Charterparty Contract go so far as to commit the plaintiff to look to the charterer, Bravely, for redress, as was the case in *PT Bumi.*

33 I also clarify that the present case is distinguishable from the decisions in *Pacific Associates Inc and another v Baxter and others* [1990] 1 QB 993 ("*Pacific Associates*") and *Spandeck*, both of which were raised by the defendant to support its case that no duty of care ought to be found. In both decisions, the contract between the plaintiff and the third party *clearly provided* for alternative means of resolution of disputes between the plaintiff and defendant. *Pacific Associates* concerned a claim by a plaintiff contractor against a defendant partnership of engineers in respect of the negligent certification of costs and the administration of the contract between the contractor and the employer of the engineers. No contractual relationship existed between the engineers and contractor. The English Court of Appeal declined to find that that the engineers owed the contractor a duty of care because the contract between the contractor and the employer contained clauses providing that the engineers would not be personally liable for acts under the contract and providing for the arbitration of disputes between the contractor and the employer (see *Spandeck* at [97]; *The Law of Torts in Singapore* at para 05.029). In *Spandeck,* the Court of Appeal found that the facts were materially the same as the salient facts in *Pacific Associates* and applied the policy considerations articulated in *Pacific Associates* (*Spandeck* at [97] and [114]). In contrast with these decisions, there is no equivalent clause in the Charterparty Contract that provides for alternative dispute resolution between the plaintiff and defendant.

34 At this juncture, the Court of Appeal's observations in *The "Sunrise Crane"* at [34] must be borne in mind:

> Reverting to this court's observations in [*PT Bumi (CA)*] quoted above, while it is true that the law of tort offers an avenue of redress for losses suffered by a person where such losses would otherwise be without a remedy, *it does not conversely mean that remedies in tort become automatically unavailable simply because the plaintiff has a remedy in contract against another party*. To conflate the two would be to ignore the fundamental difference between contract and tort. Tortious duties are primarily fixed by law while contractual duties are based on the consent of the parties.
>
> [emphasis added]

35 In my view, the facts of the present case can be analogised to the facts in *Jet Holding (HC)*: Stork, the subcontractor, was essentially a repairer who had been hired by Cameron to refurbish a working slip joint out of the leftover components. Notwithstanding that the owner, JHL, only had a contractual relationship with JSL by virtue of the bareboat charter, the High Court and Court of Appeal nonetheless found it "fair, just and reasonable" to find that Stork owed JHL a duty of care in tort. The same reasoning applies to the present case. As stated in *NTUC Foodfare* at [57], the test is whether the parties structured their contracts intending thereby to exclude the imposition of a tortious duty of care. I highlight that cl 13 of the AME-MSI Repair Contract, provides that "[i]n no event shall [the defendant] be liable for … damages, whether in … tort, negligence … or otherwise".[66] I note that parties dispute the applicability of these terms, as they are stated to be terms and conditions for a "Standard Sales Order", and not for a service of repairs. In any event, I find that this term does not exclude the imposition of a duty of care in tort owed by the defendant to the plaintiff. This is because cl 13 concerns the remedies available to MSI (on

66 Anujit's AEIC at para 117(d).

behalf of Bravely). Indeed, cl 13 proceeds to state that the "[MSI's] sole and exclusive remedy against [the defendant] shall be the replacement of nonconforming goods". Interpreted as a whole, cl 13 means that MSI is precluded from seeking a remedy in tort against the defendant, because it has another contractual remedy. As such, the tortious liability referred to in cl 13 is vis-à-vis the defendant and MSI. Therefore, there is nothing in the Charterparty Contract or the AME-MSI Repair Contract that excludes the liability in tort of the defendant owed to the plaintiff.

Duty in bailment

The law

36 It is trite law that a bailee owes a duty to the bailor to take proper care of the goods in his possession. A sub-bailee is generally in the same position as a bailee with respect to caring for the original bailor's goods (*Techking Enterprise Ltd and another v JFE Consolidators Pte Ltd and another* [2005] 2 SLR(R) 744 ("*Techking*") at [10]). Where goods that are on bailment are injured or lost, the burden of proof rests on the bailee to show, on a balance of probabilities, that he discharged his duty of care (*Techking* at [9]). The justification is that, since the bailee is in possession of the relevant goods, he is best able to provide an explanation of the misadventure and he is most likely to have been at fault if such an explanation is not forthcoming: *Palmer on Bailment* (Sweet & Maxwell, 3rd Ed, 2009) ("*Palmer on Bailment*") at para 1.053. These principles apply to the sub-bailee as well, who must prove that he has discharged his duties to the original bailor (*Techking* at [12]).

37 To establish bailment, the bailee must have exclusive possession over the chattel. In *Yearworth and others v North Bristol NHS Trust* [2010] QB 1 at

[48], the English Court of Appeal set out the relevant principles of the law of bailment, one of which being:

> (d) A bailment arises when, albeit on a limited or temporary basis, *the bailee acquires exclusive possession of the chattel or a right thereto*: *Midland Silicones Ltd v Scruttons Ltd* [1959] 2 QB 171, 189, per Diplock J; [1961] 1 QB 106, 119 per Hodson LJ.
>
> …
>
> [emphasis added]

38 In *Midland Silicones Ltd v Scruttons Ltd* [1961] 1 QB 106 at 119, the English Court of Appeal found that there was no *exclusive possession* on the part of the defendants in that case as would support a bailment, thereby implying that exclusive possession is a necessary requirement to establish bailment.

39 The Canadian courts have taken a similar position on the requirement of exclusive possession. In *The Queen v Halifax Shipyards Ltd* (1956) 4 DLR (2d) 566 ("*Halifax Shipyards*") at 571, Thorson P stated that:

> It is essential to there being a bailment of a chattel that the bailee should have possession of it which connotes delivery of its possession by the bailor to the bailee. Thus, bailment, apart from any incidents that may be attached to it by contract, is essentially a conveyance of the possession of the chattel: *vide* Paton on Bailment in the Common Law, 1952, p.29. The justification for imposing on the bailee the onus of disproof of negligence on his part as the cause of the damage to the bailed chattel during the term of the bailment is put on the ground that it was in his possession and that, consequently, he is the only person who knows what happened to it. *This presupposes exclusive possession on his part.*
>
> [emphasis added]

Thereafter, in the case of *Coast Crane Co Ltd v Dominion Bridge Co Ltd et al British Columbia Power Com'n v E.B. Investmenets Ltd et al*

(1961) 28 DLR (2d) 295 at [20], the pronouncement of Thorson P in *Halifax Shipyards* as quoted above was adopted as a statement of the law on bailment:

> With respect, I adopt these words as a statement of the law relating to bailment, and that being so, the plaintiff must mean and show that the constructive possession to which counsel referred was in fact exclusive possession.

40 These authorities are consistent with the position taken under Singapore law. In *Zweite Ms "Philippa Schulte" Shipping GmbH & Co KG & another v PSA Corp Ltd* [2012] SGHC 135 ("*Zweite*") at [147], Tan Lee Meng J held that:

> For a bailment relationship to arise, the chattel in question must have been in the possession of the bailee, who has a *high degree of control over the chattel to the exclusion of at least the bailor.*
>
> [emphasis added]

41 In *Zweite*, an accident occurred when the plaintiff shipowner's vessel was berthed at the defendant's container terminal. The shipowner and the demise charterer claimed that the defendant negligently lifted and dropped one of the vessel's hatch covers during cargo discharging operations, causing damage to the hatch cover and vessels (*Zweite* at [1]). The plaintiffs further asserted that they were entitled to rely on bailment to demand that the defendant prove that the accident was not caused by its negligence, thereby reversing the burden of proof (*Zweite* at [145]). The court held that there was no bailment as the unloading of cargo was, without more, a joint operation conducted by the plaintiff and defendant. The defendant did not work independently of the vessel's crew during the lifting operation (*Zweite* at [148]).

42 *Palmer on Bailment* also considers that possession can be alternating and/or divided geographically upon the subject chattel and that possession (*Palmer on Bailment* at paras 1.137 and 1.138):

> … The problems of exclusivity of control quite often arise with regard to large faveolate chattels such as ships, in relation to which it is perhaps more logical to talk of occupation in the manner of land rather than possession in the manner of chattels. A number of cases confirm that it is possible for different persons to be in possession of different parts of a ship at the same time.
>
> **1–138** Theoretically, therefore, it is possible to create a bailment in which possession is divided not chronologically but geographically upon the subject chattel. With a chattel like a ship this is easily envisaged.
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> …
>
> On the other hand, it is equally possible to have an alternating possession; i.e., one which moves like a pendulum between one party and another as circumstances change and each custodian successively reasserts their presence and control. ln the case of ships that are occupied by repairers, this seems to be in many cases the likelier conclusion.

The decision

43 To recapitulate, the plaintiff pleaded that the defendant, as sub-bailee, owes a duty of bailment to take reasonable care of the Vessel for the period of time when the Vessel was in the defendant's physical possession.[67] I find that no such duty is owed.

44 It is clear that a relationship of bailment existed between the plaintiff and Bravely.[68] Under the bareboat charter, the plaintiff transferred possession and control of the Vessel to Bravely. In *The "Chem Orchid"* [2015] 2 SLR 1020 at [66], the High Court expounded on the nature of a bareboat charter:

> A bareboat charter essentially operates as a lease of the vessel to the charterer. The services of the master and crew may or may not be superadded but, ultimately, what is critical is that they are for all intents and purposes the servants of the

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67 PCS at para 40.

68 DCS at para 42.

> charterer, and, through them, the possession and control of the vessel is vested in the charterer (see Sir Bernard Eder et al, *Scrutton on Charterparties and Bills of Lading* (Sweet & Maxwell, 22nd Ed, 2011) ("*Scrutton*") at para 4-002). It has therefore been said that the hallmark of a bareboat charter is the transfer of possession and control of the vessel from the owner to the charterer (see *The Guiseppe di Vittorio* [1998] 1 Lloyd's Rep 136 at 156). A bareboat charter does not transfer legal or beneficial title in the vessel to the charterer but, because possession and control of the vessel resides in him for the duration of the charter, it is not incorrect to speak of him as having temporary ownership of the vessel or as being its owner *pro hac vice* (see *Medway Drydock & Engineering Co Ltd v The Andrea Ursula (Owners)* [1973] 1 QB 265 at 269). This semblance of ownership explains why I stated at the outset of this judgment that third parties may well believe or assume, in their dealings with the bareboat charterer, that they are in fact dealing with the vessel's true owner.

45 The authors of Howard Bennett *et al*, *Carver on Charterparties* (Sweet & Maxwell, 2nd Ed, 2021) at para 1.031 take a similar view:

> Unlike a time or voyage charter, a demise charterparty (also known as a "bareboat" charterparty) is, as the term "demise" indicates, a contract of lease under which exclusive possession of the vessel passes from the owner to the charterer for the duration of the period of hire. *There is a bailment of the vessel.*
>
> [emphasis added]

46 However, a relationship of sub-bailment cannot be established between Bravely and the defendant. According to the plaintiff, the defendant was the sub-bailee of the Main Engine.[69] Yet, the evidence before me does not disclose such a relationship – the defendant did not have exclusive possession of the Main Engine. First, the Vessel was never delivered to the defendant's premises. The Vessel was berthed at various third-party locations throughout the course of the defendant's repair work, such as the Singapore Anchorage and the

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69 PCS at paras 40–41.

Offshore Marine Centre Repair Berth of ST Marine Tuas Shipyard.[70] Second, the three service reports for the Main Engine prepared by the defendant during the period of repair and dated 23 May 2019, 11 July 2019 and 8 August 2019[71] state that all works done were witnessed by the superintendent and chief engineer or captain of the vessel. These service reports also state that the defendant's job scope was "confirmed with attending Superintendent and Chief Engineer before work commencement on-board vessel". In addition, the reports are also affixed with the stamp and signature of the chief engineer, one Nan Wen Long. Neither the superintendent nor the chief engineer are employees of the defendant. In fact, the reports indicate that the chief engineer and/or the superintendent were present at various points of the Main Engine repairs. For example, the service report dated 23 May 2019 states that:[72]

> CRANKSHAFT RENEWAL
>
> …
>
> All jacking bolts were tightened. Reading within coupling tolerance. Inspected & Witnessed by Superintendent & Chief Engineer.
>
> …
>
> FUEL PUMP 09 UNITS
>
> …
>
> Refitted all attachments and accessories with ship supplied new gaskets and O-rings, witnessed by Chief Engineer.
>
> …

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70 AC at p 2.

71 1AB127–139, 147–152, 154–159.

72 1AB133, 137.

The relationship between the superintendent, the chief engineer and the defendant disclosed by these documents shows that the defendant did not have exclusive possession of the Main Engine.

47 Third, the plaintiff's asserts that defendant's timesheets during the repair period do not "state that the crew was in the engine room or near the [Main Engine]".[73] This is not a convincing argument. As the timesheets are internal documents to the defendant, it is reasonable that they only record the attendance of the defendant's personnel.[74]

48 The plaintiff also attempts to rely on *Halifax Shipyards*,[75] *The "Wilson Ruby" and another action* [1998] 1 SLR(R) 932,[76] and *The "Ruapehu"* (1925) 21 Ll L Rep 310[77] to argue that "a repairer may still be found to have possession for the purposes of founding bailment, even though the crew remained onboard".[78] However, the defendant rightly points out that these authorities are distinguishable from the present case. In those cases, the vessel was delivered to the repairer's premises, but the vessel's crew remained on board the vessel during the repair works.[79] The fact that the vessel was in the ship repairers' premises would have been a significant factor for the finding of bailment. Here, the Vessel was *not* in the defendant's shipyard. Further, the Vessel's crew was also on board the Vessel and the Main Engine during the

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73 PCS at para 59.

74 DRS at para 172.

75 PCS at para 48.1.

76 PCS at para 48.1.3.

77 PCS at para 48.2.

78 PCS at para 53.

79 DRS at para 170.

course of the repair works. The plaintiff in *Zweite* had sought to make a similar argument as the plaintiff in this case. In this regard, Tan Lee Meng J's observations are instructive (*Zweite* at [153]):

> The plaintiffs sought to rely on *The Ruapehu* (1925) 21 Ll LR 310, which was cited in *The Wilson Ruby* [1998] 1 SLR(R) 932 to support their contention that there was a bailment of the hatch cover. *However, those cases involved claims against the repairers of a vessel while they were in the repairers' own drydock*. In *The Ruapehu*, Atkin LJ pointed out (at 314-315) that *it was clear that the defendants had possession of the vessel as she was in their enclosed yard and they were entitled to maintain a possessory lien in respect of payment for the repairs executed by them*. …
>
> [emphasis added]

49 Therefore, the aforementioned cases are not relevant to the facts of the present case. To conclude, the defendant does not owe a duty in bailment to the plaintiff.

Whether there were Defective Works such that the defendant breached its duty of care

Blank plug or orifice plug

50 The main factual dispute for my determination is whether the plug left by the defendant inside the free-end of the Replacement Crankshaft was a blank plug or an orifice plug.

51 The plaintiff pleaded that the defendant had breached its duty of care by "failing to ensure that the correct orifice plug … was placed into the free-end side of the [Replacement Crankshaft] and/or [failing] to remove the incorrect plug. This resulted in lubricating oil starvation of and the consequent complete

destruction of the [TVD]".[80] The plaintiff contends that the blank plug was, in all likelihood, present in the Replacement Crankshaft when it was purchased. The purpose of having a blank plug in a new crankshaft was to prevent dirt or water from entering the lube oil channel of the crankshaft during storage and transportation.[81] However, when the Vessel was repaired, the defendant failed to ensure that the correct orifice plug was installed in the free-end of the Replacement Crankshaft, and left the blank plug there instead.[82] The defendant denies this claim.[83] Its case is that the crankshaft had been pre-fitted with an orifice plug.[84]

52 Before I proceed with my analysis, I first explain the significance of these two plugs being fitted in the Replacement Crankshaft.

53 A crankshaft is a component of an engine. Essentially, the crankshaft rotates within the engine while being held in place by bearings. The crankshaft is connected to the pistons via connecting rods. The reciprocating motion of the pistons causes the crankshaft to rotate.[85] When the engine of a vessel is running, the crankshaft vibrates due to the flexing of the crankshaft in response to the impulses created as the connecting rods push on the crankshaft. At certain revolutions, the torsional vibrations occurring within the crankshaft align with the natural frequency of the engine and cause severe vibrations. The engine revolutions at which this occurs is called the engine's "critical speed". If left

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80 SOC at para 6(c).

81 PCS at para 82.

82 PCS at para 83.

83 Defence at p 21.

84 DRS at para 73.

85 Transcript (26 April 2023) at p 9 ln 15–17, p 10 ln 19–23 and 12 ln 3–11.

unchecked, the vibrations will quickly destroy the crankshaft and main bearings, and in severe cases, other components of the main engine. The TVD was designed to significantly limit the amplitudes of these vibrations. It protects the crankshaft by mitigating the impact of opposing torsional forces experienced during a vessel's operation. In particular, the spring packs within the TVD utilise the high elasticity of its leaf springs, as well as the hydrodynamic damping of the lubricating oil, to shift the major critical speeds out of the engine's operating speed range. This process absorbs the vibrations and changes them to heat. The lubricating oil also serves as a cooling medium to remove the heat generated.[86] It is undisputed that the TVD required a supply of lubricating oil to operate.[87] The oil would flow from the oil pump through the passages of the Main Engine, and then into the TVD, before flowing out through two nozzles into the engine sump to be pumped back into the system.[88]

54 Importantly, both experts agree that if a blank plug, as opposed to an orifice plug, had been fitted into the Replacement Crankshaft, the TVD would not work.[89] An orifice plug has a 10mm diameter hole drilled into it that allows lubricating oil to pass through it and be supplied to the TVD. On the other hand, a blank plug has no such hole or opening.[90] Therefore, if a blank plug had been fitted into the free-end of the Replacement Crankshaft, no lubricating oil would be supplied to the TVD, resulting in "lube oil starvation". The TVD would be unable to reduce the torsional vibrations by hydraulic dumping and eventually,

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86 Singh's 1st AEIC at p 21 paras 77–80, 90; AEIC of Bindra Jaskirat Singh dated 20 March 2023 ("Singh's 2nd AEIC") at p 14 paras 60–63; DCS at para 53.

87 Wilson's 1st AEIC at p 29 para 10.2.

88 Transcript (27 April 2023) at p 88 ln 13–25.

89 Transcript (12 April 2023) at p 107 ln 9 to p 108 ln 5.

90 Lee's AEIC at para 83.

the attached leaf springs and intermediate pieces would lose elasticity and crack from fatigue and thermal stresses. In essence, the TVD would mechanically self-destroy.[91] Further, the absence of lubricating oil causes extensive vibrations during the extensive running of the Main Engine.[92] These vibrations would then result in the break down and damage of the Main Engine.[93] In addition, the vibrations would be accompanied by a lot of noise, as the unlubricated springs would "[rub] against each other".[94]

55 To be clear, the plaintiff has only put forward one theory to explain the allegedly inadequate supply of lubricating oil in the TVD – that being the presence of the blank plug in the Replacement Crankshaft.[95] Therefore, if an orifice plug was, in fact, fitted into the Replacement Crankshaft, the plaintiff has no other basis to claim that the defendant had failed to ensure that sufficient lubricating oil was supplied to the TVD.[96]

56 I make a finding of fact that the defendant left an orifice plug in the free-end of the Replacement Crankshaft. This is for the following reasons.

Absence of excessive vibrations and noise on the Vessel during the Sea Trials

57 In my judgment, I place significant weight on the absence of excessive vibrations experienced on the Vessel during the Sea Trials.

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91 Wilson's 1st AEIC at p 30 para 10.6; Singh's 1st AEIC at p 23 para 91–96; Wilson's 2nd AEIC at p 47.

92 Wilson's 1st AEIC at p 30 para 10.6.

93 Singh's 1st AEIC at p 23 para 92.

94 Transcript (26 April 2023) at p 55 ln 19–25.

95 Transcript (27 April 2023) at p 193 ln 12–23.

96 SOC at para 6(d).

58 It is undisputed that if a blank plug had been fitted to the Replacement Crankshaft, severe vibrations would be experienced on the Vessel.[97] Therefore, the presence of excessive vibrations would strongly indicate the presence of a blank plug in the Replacement Crankshaft. The plaintiff takes the position that there were strong vibrations and noise were experienced on the Vessel during the Sea Trials. However, the plaintiff principally relies on the testimony of Mr Lee Sai Kit ("Mr Lee"), a director of the plaintiff, for this assertion.[98] Under cross-examination, Mr Lee testified that he had personally experienced strong vibrations and noise during the Sea Trials.[99]

59 As a preliminary point, I note that there is some ambiguity as to whether Mr Lee was, in fact, on board the Vessel during the three Sea Trials. In his Affidavit of Evidence-in-Chief ("AEIC"), Mr Lee stated that "[the plaintiff's] representatives, Zhang Long and Zhang Yunchen, were present" at the First Sea Trial. Further, "Zhang Long … reported to [Mr Lee] that the Main Engine had strong vibration and noise. He also reported the same to [Mr Lee] in respect of the [Second Sea Trial]".[100] This gives the impression that Mr Lee had merely received feedback about the First Sea Trial and Second Sea Trial from the plaintiff's representatives who were physically present on the Vessel. Nowhere in his AEIC does Mr Lee explicitly mention that he was physically present at the First Sea Trial and Second Sea Trial.[101] Further in his AEIC, Mr Lee laments that "[g]iven the issues faced during the failed sea trials prior, I was very

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97 DCS at para 45(c); PCS at p 42.

98 PCS at paras 107–109, 111; Lee's AEIC at para 30.

99 Transcript (11 April 2023) at p 50 ln 7–14 and p 65 ln 5–8.

100 Lee's AEIC at paras 18 and 20.

101 Transcript (11 April 2023) at p 46 ln 10–16.

concerned and so I attended on board for this [Third Sea Trial]".[102] This statement suggests that Mr Lee was not on board the Vessel on the First Sea Trial and the Second Sea Trial. However, at trial, Mr Lee testified that he was physically present at the Sea Trials (*ie* all three sea trials).[103] He also produced photographs from his mobile phone which had been taken on the Vessel. The metadata showed that these pictures were taken on 9 August 2019, the date of the First Sea Trial.[104] There is no indication that these photographs had been transferred from another device and downloaded to his mobile phone. Counsel for the defendant also conceded that there was no evidence to prove that Mr Lee was absent from the First Sea Trial.[105] On balance, I find that Mr Lee was present on the Vessel during the Sea Trials.

60 However, Mr Lee's assertions about the strong vibrations and loud noise that he experienced on the Vessel are met with deafening silence in the contemporaneous records. Firstly, in the timesheets/services reports produced by the defendant for 9, 10 and 16 August 2019, *ie*, the days on which the Sea Trials were conducted, there were no records of any excessive vibrations on the Vessel.[106] However, during the Sea Trials, the Main Engine was run at varying loads, including up to 100% load. In fact, during the Third Sea Trial, the Main Engine was run at 100% power at constant revolutions for an hour. Under cross examination, Mr Singh agreed that the Main Engine would have hit critical speed at some point during the Sea Trials, as it was put through the entire range

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102 Lee's AEIC at para 25.

103 Transcript (11 April 2023) at p 47 ln 13–15.

104 Transcript (11 April 2023) at p 55 ln 19 to p 56 ln 8.

105 Transcript (11 April 2023) at p 54 ln 4–11.

106 Anujit's AEIC at pp 711–716, 725–726.

of revolutions. He also agreed that if the TVD was not working, there would be severe vibrations on the Vessel.[107] But there is no record of severe vibration in the timesheets/service reports. In contrast, the timesheet for the Third Sea Trial recorded that "the engine performance test … [was] found satisfactory".[108] Similarly, the Survey Report produced by BV reported that "[o]operating parameters of main engine [were] observed to be normal" during the Third Sea Trial, based on the engine testing data record of the defendant.[109] Secondly, around the time of the Sea Trials, Mr Lee was in correspondence with BV. He sent two emails to BV on 19 August 2019. Mr Lee explained in his AEIC that he "had informed BV of the deficient repairs by [the defendant] and the state of the Main Engine, knowing full well that the true and complete picture may not be available to BV".[110] However, notwithstanding the fact that Mr Lee sought to provide a "true and complete picture" to BV, he failed to mention the abnormal and excessive vibrations he had testified in court that he had experienced on the Vessel. Thirdly, in the morning of 19 August 2019, Mr Lee had a meeting in person with representatives of BV about the repairs conducted by the defendant and the damages sustained by the Vessel. The plaintiff has provided a transcription of the audio file of said meeting. However, in the course of the meeting lasting more than 30 minutes, the transcript is silent on the issue of excessive vibrations on the Vessel.[111] On 17 and 20 August 2019, Mr Lee also sent two emails to Bravely. In each email, he described certain problems with

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107 Transcript (27 April 2023) at p 175 ln 9–17.

108 Anujit's AEIC at p 725.

109 Lee's AEIC at p 105.

110 Lee's AEIC at para 41 and pp 113–122.

111 Lee's AEIC at para 41 and pp 123–134.

the Vessel. Again, there is no mention of any excessive vibrations.[112] At trial, Mr Lee alleged that he had written to Bravely on 9 and/or 10 August 2019 about the vibrations.[113] However, he subsequently recanted this statement[114] and no such emails were produced by the plaintiff. Thirdly, the plaintiff's representative, Zhang Long, who attended the First Sea Trial and Second Sea Trial, prepared a report dated 10 August 2019 in respect of those sea trials.[115] However, the report makes no reference to any excessive vibrations.[116] It is odd that the report would make such a material omission, given that, according to Mr Lee, Zhang Long had specifically reported to him that "the Main Engine had strong vibration and noise",[117] meaning that this was an issue of significance. Finally, Mr Singh, the plaintiff's expert, conceded that there was no written record of vibrations at the Sea Trials.[118]

61 During the trial, Mr Lee submitted a video that he had taken on the Vessel during the First Sea Trial. He claimed that he had recorded this video as he realised that there were problems when the Main Engine was running. He asserted that the video would prove that there were excessive vibrations on the Vessel.[119] However, no vibration could be seen from the video, and Mr Lee concedes as much.[120] The plaintiff submits that the loud noise that could be

112 Lee's AEIC at pp 90–91.

113 Transcript (11 April 2023) at p 72 ln 4–24.

114 Transcript (12 April 2023) at p 4 ln 3–18.

115 Lee's AEIC at para 20; Transcript (11 April 2023) at p 60 ln 13–16.

116 Lee's AEIC at pp 47–57.

117 Lee's AEIC at para 20.

118 Transcript (27 April 2023) at p 177 ln 3–14.

119 Transcript (12 April 2023) at p 3 ln 13–22611264; PCS at para 109.

120 Transcript (12 April 2023) at p 5 ln 21–25 to p 6 ln 1–3.

heard in the video show that there was excessive vibration.[121] The plaintiff cites Mr Wilson's evidence that there would be a lot of noise if the TVD suffered lube oil starvation, because the springs will not be dampened by the oil and will rub against each other.[122] In my view, this piece of evidence is neither here nor there. There is no evidence before me to prove that it was the excessive vibrations that had caused the noise heard in the video. Further, it is unclear whether the noise was attributable to a normal level of noise associated with the operation of the Vessel.

62 In fact, the first written record of any vibrations on the Vessel was an entry on the logbook of the Vessel dated 4 December 2019, when the Vessel was *en route* from Singapore to Zhoushan, China:[123]

> Remark No. 6 – [Main Engine] rpm between 530-570 vibration and surge
>
> Remark No. 8 – [Main Engine] vibration & [turbocharger] surging RPM reduced frequently

This entry was recorded by the crew of the Vessel. However, no other entry in the logbook makes reference to any vibration on the Vessel.[124] Further, this entry was recorded more than three months after the Vessel had been redelivered to the plaintiff, and six days after the Vessel had departed Singapore.[125] Mr Wilson provided an alternative explanation for the sudden vibrations. According to the logbook of the Vessel, the turbocharger was surging on 3 and 4 December 2019 at speeds of 530–570rpm. Mr Wilson explained that this was likely to have been

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121 PCS at paras 109–110.

122 Transcript (26 April 2023) at p 55 ln 20–25.

123 PCS at para 114.

124 Wilson's 1st AEIC at p 18 at para 3.22.

125 DRS at para 42.

caused by the heavy weather that the Vessel had been encountering at the time and may have resulted in the vibration and noise to the Main Engine.[126] Further, the checks conducted on that day showed that the Main Engine was operating within the normal parameters.[127]

63 In its written submissions, the plaintiff, in the alternative, tries to explain the absence of strong vibrations during the Sea Trials.[128] The plaintiff contends that during the Sea Trials, the springs of the TVD were still in operation. The plaintiff cites Mr Wilson's observation that the springs would only be "progressively" destroyed,[129] which was why the springs within the TVD were found to be cracked when the Vessel arrived in Zhoushan.[130] However, earlier on in the cross-examination, Mr Wilson had explained that "the springs alone are only a *minor player* [emphasis added]" in giving the damping effect. Instead, "[t]he main player is … the lube oil. The main purpose of the lube oil going to the damper is to dampen these vibrations".[131] In Mr Wilson's First Expert Report dated 21 February 2023, he also explained that "without a supply of lubricating oil, the internal leaf springs of the [TVD] … would *quickly start to destroy themselves* and this would have caused *extensive vibrations* during the extensive running of the Main Engine at varying loads, including up to 100% load, *during the [Sea Trials]*" [emphasis added].[132] Further, Mr Singh did not

126 Wilson's 1st AEIC at p 39.

127 Transcript (27 April 2023) at p 184 ln 8–14.

128 PCS at para 120.

129 Transcript (28 April 2023) at p 55 ln 8–10.

130 PCS at para 120.

131 Transcript (26 April 2023) at p 48 ln 4–8.

132 Wilson's 1st AEIC at p 30 para 10.6.

testify that the vibrations would gradually intensify over time.[133] Instead, during cross-examination, Mr Singh agreed that it would be puzzling that no excessive vibration was recorded during the Sea Trials if the blank plug was fitted in the Replacement Crankshaft.[134]

64 For completeness, I recognise that Mr Dante Mendoza De Villa ("Mr Dante"), an engineer of the defendant, gave evidence that there were vibrations on the Main Engine during the Third Sea Trial. However, Mr Dante caveated that these vibrations were not *excessive*.[135] As explained by Mr Wilson, vibrations would be experienced when any engine is running. Even when the TVD operates, vibrations are experienced, albeit that they are reduced.[136] Therefore, the vibrations experienced by Mr Dante were likely to be within the normal parameters and his testimony does not contradict my finding.

Checks on the TVD

65 According to the Main Engine logbooks maintained by the Vessel's crew, the crew conducted three internal checks on the TVD after the Vessel was redelivered to the plaintiff. These inspections took place on 9 November 2019, 19 December 2019 and 7 January 2020. On each occasion, the crew concluded that the TVD was operating normally.[137] During the trial, Mr Wilson explained that these checks would involve the crew accessing the TVD by removing the door of the crankshaft, activating the priming pump, and verifying whether the

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133 DRS at para 47.

134 Transcript (28 April 2023) at p 54 ln 7 to p 55 ln 17.

135 Transcript (14 April 2023) at p 42 ln 22 to p 43 ln 3.

136 DCS at para 282.

137 DCS at para 284; Transcript (27 April 2023) at p 124 ln 21 to p 125 ln 24.

lubrication oil was being discharged from the discharge hole of the TVD.[138] Mr Singh agreed that this was the standard practice for a TVD check. However, he expressed doubt as to whether these steps were actually carried out by the crew.[139] On balance, I find that the crew conducted the standard procedure. The plaintiff has tendered no evidence to suggest why this would not be the case. I also note Mr Wilson's observation that "[t]his is a standard practice you would do *especially if the vessel had been laid up … for approximately three months*".[140] In relation to the first inspection, conducted two weeks before the Vessel set off to China, it is reasonable to expect that these procedures are carried out, given that the Vessel had been lying idle in Singapore for a sustained period of time.

66 Notably, Mr Singh acknowledged that if the standard practice was executed, and the crew concluded that the TVD was operating normally, meaning that there was oil flowing through the TVD, that would confirm that the Replacement Crankshaft was fitted with an orifice plug:[141]

> MR HO: … My question is if assuming that the crew, when they checked the vibration damper, they also switched on the electric pump and they checked the flow of the lube oil, crankshaft, into the vibration damper, right, and they said okay, meaning that there is a flow, right, *would that not confirm for us that the crankshaft had an orifice plug at its free end*?
>
> MR SINGH: *Yes, that's right, yes.*
>
> [emphasis added]

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138 Transcript (27 April 2023) at p 127 ln 17 to p 130 ln 21; Transcript (26 April 2023) at p 63 ln 20 to p 64 ln 11; DCS at para 121.

139 Transcript (27 April 2023) at p 133 ln 9–17.

140 Transcript (27 April 2023) at p 136 ln 8–10.

141 Transcript (27 April 2023) at p 134 ln 19 to p 135 ln 2.

67 Therefore, given that the Main Engine logbooks reported that the TVD was functioning normally, this supports the defendant's position that it was an orifice plug that was in the free-end of the Replacement Crankshaft.

68 Another relevant piece of evidence is the oil residue located in the dismantled TVD. When the Main Engine was being repaired by the defendant in Singapore, the defendant serviced the TVD. In particular, the defendant cleaned the internal components of the TVD before fitting it to the Replacement Crankshaft. However, when the TVD was dismantled by Dalian Shunzhou in China, it displayed an oily interior. This was a markedly different appearance from the images taken of the TVD after it was serviced in Singapore, which depicted its clean interior.[142] This indicates that the TVD continued to receive a flow of lubricating oil after the defendant conducted repairs on the Vessel. Mr Singh suggested that the oily interior was a result of oil being splashed and circulated from the Main Engine, which would gradually leak into the TVD through the two nozzles on the side of the TVD over the course of the eight months. Mr Singh further contended that this could have been a result of the oil mist which entered the TVD. Mr Wilson rejected these suggestions.[143] I am not convinced by Mr Singh's alternative explanations. Mr Singh only raised these examinations on the stand. Notably, the oily interior of the TVD was one of the issues canvassed in the Joint Report.[144] Mr Singh stated that he would address this point in his Reply Expert Report. However, in Mr Singh's Reply Expert Report dated 20 March 2023, he failed to address the point, let alone provide a

142 DCS at para 127; DE-5 at pp 15, 42–434.

143 Transcript (27 April 2023) at pp 160–166.

144 Singh's 2nd AEIC at p 35.

viable explanation for it.[145] Mr Wilson also refuted Mr Singh's claim about the oil mist, explaining that oil mist could not have been present as that would have caused danger of an explosion and would have been picked up by the oil mist detectors of the Main Engine, which was not the case on the evidence.[146] Therefore, on balance, I accept that the oily interiors of the TVD evidence that the TVD had received lubricating oil.

Video of removal of blank plug

69 The second arrow that the plaintiff carries in its quiver is a video that allegedly showing the discovery of the blank plug in the Replacement Crankshaft. According to Mr Lee, "[o]n 3 April 2020, the vessel crew together with the repairers from Dalian Shunzhou while inspecting the [Replacement Crankshaft], discovered that a blank plug had been installed by [the defendant] at the free-end of the [Replacement Crankshaft]". The plaintiff exhibited a video of this alleged discovery, which was recorded by the plaintiff's engineer, Mr Huang Chao (the "Video").[147] The Video was played during the trial and showed an individual removing a plug from the free-end of a crankshaft. The two persons filmed in the Video are repairers from Dalian Shunzhou.[148] Upon viewing the video during the trial, Mr Dante confirmed that the Video was of the Replacement Crankshaft of the Vessel.[149]

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145 DCS at para 292.

146 DCS at paras 286–294.

147 Lee's AEIC at paras 75–76 and pp 196–203.

148 PCS at para 145.

149 Transcript (14 April 2023) at p 17 ln 14–20.

70 As a preliminary point, I accept that direct video recordings of facts in issue are admissible as evidence of those facts. They do not constitute hearsay evidence because they directly communicate the occurrence of what was seen, to the court: Jeffrey Pinsler, *Evidence and the Litigation Process* (2017, 6th Ed, Lexis Nexis) at para 4.057.[150]

71 However, in my judgment, the evidence of the Video carries little weight. The alleged discovery of the blank plug took place more than seven months after the defendant redelivered the Vessel to the plaintiff, which is not an insignificant duration. Furthermore, the maker of the video, Mr Huang Chao, was not called as a witness in the proceedings. Therefore, he could not give evidence on the circumstances in which the Video arose, including how the alleged blank plug was discovered. He was also not present to testify on the nature of the plug that was discovered in the Replacement Crankshaft. Furthermore, the chain of evidence is not satisfactory. During the trial, Mr Lee exhibited WeChat messages dated 3 April 2020, where an employee of Eversea Shipping had sent to him photographs of a crankshaft, purportedly with a blank plug fitted in the free-end.[151] However, there is no evidence of how Mr Lee came to receive the Video. Further, even if Mr Lee received the Video from Eversea Shipping, the chain of evidence from the maker of the Video, Mr Huang Chao, is not established.

72 I note that the Trade-wind Report mentions that "[d]uring the rectification works in Zhoushan Yuanye Shipyard", "[a] nut was found blocking

150 PRS at para 6.

151 PE-6.

the lube oil supply channel in the crankshaft".[152] However, the maker of this report, Trade-wind, would not have direct knowledge of the alleged discovery of the blank plug. This is because Trade-wind's surveyor only attended on board the Vessel between 14 and 15 March 2020,[153] *ie*, prior to the alleged discovery of the blank plug on 3 April 2020. On the other hand, the Dalian Shunzhou Diesel Engine Inspection Report dated 13 May 2020 is silent on the issue. This report relates to the Main Engine repairs that were undertaken in Dalian Shunzhou and includes a series of photographs depicting an "[i]nspection of issues of original parts". However, no mention is made of the alleged discovery of the blank plug fitted to the free-end of the Replacement Crankshaft [154] This is curious, especially given Mr Lee's claim that it was a "significant and crucial" discovery.[155]

73 The defendant points to an inconsistency pertaining to the discrepancy in appearance between the plug featured in the Video (the "Video Plug") and the physical exhibit presented by Mr Lee during the trial, which he claimed to be the actual blank plug that had been removed from the Vessel ("PE-1").[156] Firstly, the Video Plug contained a distinct ring-shape machining mark on its centre, whereas PE-1 does not. The plaintiff sought to argue that the reflected light in the Video gave the appearance of a ring on the Video plug.[157] Further, the threads on the Video Plug appear to have some tape or material on it, which Mr Wilson suggests being "PTFE tape, plumber's tape". Again, however, this

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152 Lee's AEIC at p 190.

153 Lee's AEIC at p 170.

154 Agreed Bundle Volume 9 ("9AB") 5809–5989.

155 Lee's AEIC at para 82.

156 Transcript (11 April 2023) p 11 ln 23.

157 PCS at para 90.

does not appear on PE-1. However, I am of the view that it is not possible to tell from the Video whether PE-1 is or is not the plug in the Video.

Mr Dante's testimony

74 Additionally, the plaintiff relies on Mr Dante's testimony on the stand to argue that the defendant had left a blank plug in the Replacement Crankshaft.[158] To recapitulate, Mr Dante is a service engineer employed by the defendant.[159] He was part of the defendant's team which conducted repairs on the Main Engine from on or about 23 April 2019 to 20 August 2019. His role was to supervise and assist the team onboard the Vessel with the repair works conducted by the defendant.[160] Under cross-examination, Mr Dante was asked whether his eight workers had forgotten to remove the blank plug. He answered in the affirmative.[161] The plaintiff argues that this admission is "fatal" to the defendant's case. According to the plaintiff, Mr Dante was the team leader and would have known if the blank plug had been left inside the Replacement Crankshaft by his workers. He would be capable of stating the defendant's position on the state of affairs in respect of the blank plug.[162]

75 In my judgment, I place little weight on this aspect of Mr Dante's testimony. From the evidence, Mr Dante was not present on the Vessel between 10 and 12 July 2019 when the Replacement Crankshaft was installed.[163] During

158 PCS at paras 73.3, 151.

159 AEIC of Dante Mendoza De Villa dated 20 January 2023 ("Dante's AEIC") at para 2.

160 Dante's AEIC at paras 4–7.

161 Transcript (14 April 2023) at p 19 ln 20 to p 20 ln 8, 19–21.

162 PCS at paras 73.3–73.4.

163 Dante's AEIC at para 7; Transcript (14 April 2023) at p 5 ln 14–16.

cross-examination, Mr Dante also agreed that he was not involved in the renewal of the crankshaft.[164] He conceded that he was unable to describe the plug at the free-end of the Replacement Crankshaft.[165] Therefore, Mr Dante had no personal knowledge of whether or not a blank plug had been left inside the Replacement Crankshaft. Mr Dante provided no explanation for how he came to know that the blank plug was present in the Replacement Crankshaft. There is also no evidence before me that any member of his team had informed him of the presence of the blank plug. His admission merely amounts to hearsay evidence. The plaintiff submits that it did not matter that Mr Dante was not personally involved in the crankshaft renewal, because his team members would have apprised him of the work they did.[166] However, this argument does not hold up to scrutiny. Even if a blank plug was indeed fitted into the Replacement Crankshaft, it is more likely the case that Mr Dante's team did not inform Mr Dante of the presence of the blank plug. If the team had noticed the blank plug, they would have in all likelihood replaced the blank plug with an orifice plug or drilled a hole into the existing blank plug. Further, if Mr Dante had been informed, he would have likely instructed his team to take such actions. This is because, as Mr Lee claimed during cross-examination, it is "common sense" and "normal" to insert the correct plug in the Replacement Crankshaft.[167] In the alternative, if the team members had informed Mr Dante of their work done but omitted to mention the presence of the blank plug, Mr Dante could not be expected to infer that: (a) a blank plug was present in the Replacement Crankshaft; and (b) the team had failed to remove it. Therefore, against the

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164 Transcript (14 April 2023) at p 5 ln 17–20.

165 Transcript (14 April 2023) at p 44 ln 8–9.

166 PCS at para 73.4.

167 Transcript (12 April 2023) at p 44 ln 7–11.

weight of all the other evidence, I place little weight on Mr Dante's admission that the defendant had left a blank plug in the free-end of the Replacement Crankshaft.

76 Based on a review of all the evidence before me, I find that it is more likely than not that the correct orifice plug, and not a blank plug, was fitted in the free-end of the Replacement Crankshaft.

77 For completeness, if the defendant had left a blank plug in the free-end of the Replacement Crankshaft, that would constitute a breach of its duty of care. In my judgment, a reasonable repairer in the defendant's shoes ought to have ensured that the proper plug was fitted in the Replacement Crankshaft so that the lubricating oil could flow to the TVD. During cross-examination, Mr Anujit agreed that this would be the defendant's responsibility as part of the crankshaft renewal process.[168] I would reject the defendant's argument that it cannot be held liable, even if the blank plug was fitted, because the defendant is entitled to rely on: (a) MSI (which procured the Replacement Crankshaft) to ensure that the Replacement Crankshaft was free of defects; and (b) BV's Certificate of Conformity which declared that the Replacement Crankshaft was manufactured and tested against the applicable standards.[169] For context, the Certificate of Conformity was issued by the manufacturer of the Replacement Crankshaft and endorsed by BV. The Certificate of Conformity came with the Replacement Crankshaft.[170] In my judgment, the defendant had a responsibility

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168 Transcript (13 April 2023) at p 89 ln 24 to p 90 ln 5.

169 DCS at paras 307–319.

170 DCS at para 105.

to inspect any replacement parts, including the Replacement Crankshaft, and ensure its suitability for installation, as part of the installation process.

Sandpaper used in the Main Engine during the Sea Trials

78 The plaintiff pleaded that the defendant had failed to exercise a reasonable standard of care in effecting its repairs by using "sandpaper … in the Main Engine control during the [Sea Trials]".[171] According to Mr Lee, when the plaintiff's representatives were onboard the Vessel during the Third Sea Trial, they observed that "sandpapers were inserted by [the defendant] into the Control Linkage for Fuel Injection Pump throughout the Main Engine".[172] Mr Lee claimed that doing so was "completely improper and unprofessional" of the defendant.[173] He exhibited various pictures of the Main Engine depicting several small pieces of sandpaper littered on the ground, as well as other pieces of sandpaper in the gaps of the linkage components of the Main Engine.[174]

79 In my judgment, the defendant is not liable for this alleged breach. There is no evidence before me that attributes the insertion of the sandpaper to the defendant. During cross-examination, Mr Lee conceded that the photographs that he had exhibited do not show any particular person inserting the pieces of sandpaper in between the linkage components.[175] Further, the contemporaneous documents indicate that, at the material time, Mr Lee was of the view that the Vessel's crew had used the sandpaper instead. On 17 August 2019, one day after

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171 SOC at para 6(b).

172 Lee's AEIC at para 27.

173 Lee's AEIC at para 29.

174 Lee's AEIC at pp 74–83.

175 Transcript (12 April 2023) at p 11 ln 7–21.

the Third Sea Trial, Mr Lee sent an email to Bravely stating that "[d]uring your sea trial, *your crew* used sandpaper to insert into the main engine control to assist the engine running which is therefore not acceptable".[176] Mr Lee's complaint evidently pinned the blame onto Bravely's crew. I am not convinced by Mr Lee's explanation on the stand that the words "your crew" was a "general term" and that he was, in fact, referring to the employees of the defendant on the Vessel.[177] During cross-examination, Mr Singh also accepted that the defendant had not been asked to repair the control linkages, and therefore, it was not part of the defendant's job scope.[178]

80 In any event, I find that the act of using sandpaper during the Sea Trials does not fall below the standard of care. Mr Wilson explained that the use of sandpaper is not necessarily poor marine engineering practice.[179] For context, the control linkages regulate the quantity of fuel required for optimum combustion of the Main Engine's cylinders. If the gap between the linkage components is too large, the amount of fuel injected into each individual combustion chamber will be inaccurate, leading to inconsistency in the fuel combustion in each cylinder. Sluggish and excessively worn-out control linkages will lead to the unstable operation of the Main Engine.[180] During the trial, Mr Wilson explained that the insertion of the sandpaper into the gaps of the control linkages is a temporary measure used by engineers to balance the exhaust temperatures across all nine cylinders in the Main Engine. Therefore,

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176 DCS at paras 256–257.

177 Transcript (12 April 2023) p 13 ln 10 to p 14 ln 17.

178 Transcript (27 April 2023) at p 76 ln 19–22.

179 Wilson's 1st AEIC at p 28 para 8.11.

180 Singh's 1st AEIC at p 19 paras 66–68.

this prevents the Main Engine from operating unstably. Mr Singh agreed on this point.[181] Therefore, the use of sandpaper during the Sea Trials does not amount to a breach.

81 Finally, there is no causation between the use of the sandpaper and the damage suffered by the Main Engine. When posed the question of whether the use of sandpaper would cause any damage to the Main Engine, Mr Singh conceded that it would merely have caused "minor instability of the [M]ain [E]ngine" and he agreed that it was "not a big issue".[182]

Severe scratches on main journals

82 The plaintiff also pleaded that the defendant fell below the standard of care as "[t]he majority of main journals suffered from severe scratches".[183] To recapitulate, after the Vessel was redelivered to the plaintiff on 31 August 2019, the plaintiff arranged for Metalock to inspect the Main Engine of the Vessel from 12 to 16 September 2019. In the Metalock Report, it was reported that Metalock "found scratches on most main journals which is abnormal phenomena, especially for new crankshaft".[184]

83 In my judgment, the scratches and wear patterns on the shells of the main bearings were within the normal range. Therefore, no damage was caused by the defendant. In the Joint Memorandum, both experts agreed that all medium speed trunk engines that burn heavy fuel oil, such as the Main Engine in the

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181 DCS at para 259; Transcript (26 April 2023) at p 77 ln 9–10; Transcript (27 April 2023) at p 73 ln 16–18.

182 Transcript (27 April 2023) at p 77 ln 2–5.

183 SOC at para 6(i).

184 AC at p 2; Lee's AEIC at para 48 and p 145.

present case, suffer from minor scratches to its main and crankpin bearing shells.[185] Both experts also agreed that the photographs of the main bearing shells located in the Metalock Report show scratches that are *less severe* than the examples shown in the MAN L32/40 Instruction Manual. The examples in the MAN L32/40 Instruction Manual are described as having a "[n]ormal bearing wear pattern". The manual also states that where the bearing shell has scratches on the surface that can be seen but not measured or felt (as is the case in the example), the bearing is suitable for further use.[186] *A fortiori*, the main bearing shells in the present case were suitable for further use too. During the trial, Mr Singh also agreed that "there was no damage, just the light scratches were noted".[187]

84 I considered Mr Singh's further point that the extent of the scratches was abnormal, given that the Replacement Crankshaft had only been installed two months prior to the inspection by Metalock.[188] According to Mr Singh, this meant that the bearings would not last as long as they were meant to:[189]

> COURT: So it is abnormal, what does it mean? … You don't expect -- if things are done properly, you don't expect to find this amount of scratches?
>
> MR SINGH: That's right.
>
> COURT: Which means that, what, although abnormality continues, then you would expect more scratches after another 100, or 1,000 hours?
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> MR SINGH: That's right.

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185 Singh's 2nd AEIC at p 36 para 7(i).

186 Singh's 2nd AEIC at pp 36–37 para 7(ii); Transcript (28 April 2023) at p 15 ln 9 to p 16 ln 21.

187 DRS at para 89; Transcript (28 April 2023) at p 27, ln 5–18.

188 Transcript (28 April 2023) at p 17 ln 14–17.

189 Transcript (28 April 2023) at p 18 ln 19 to p 19 ln 4.

COURT: The bearings would not last as long?

MR SINGH: Would not last long.

85 However, this damage has not materialised. In AB's 20 January Report, which was based on an inspection of the Vessel after it had entered Yuanye Shipyard, it was reported that only "light scratches" were found on three units of the crankshaft main bearings.[190] Therefore, the majority of the main journals did not sustain severe scratches.

Crankshaft deflection

86 In its Statement of Claim, the plaintiff pleaded that the defendant was in breach as the Replacement Crankshaft was misaligned. The defendant had erroneously observed and/or recorded the crankshaft deflection measurements and failed to ensure that the crankshaft deflection was within allowable limits. In particular, the crankshaft was installed with a deflection of -0.16mm, which exceeded the maximum allowable limit of +/-0.14mm set by the Main Engine maker. As a result, this caused excessive wear to the bearings of the Main Engine.[191]

87 For context, after a new crankshaft is installed into a main engine and aligned by the repairer, a set of deflection readings are taken. The maker of each engine will specify guidelines on the acceptable deflection limits for their engines. If the crankshaft is not properly aligned according to the maker's recommendation, it will cause excessive bearing load and wear the bearings supporting the crankshaft. In turn, this could lead to further damage to other

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190 2AB1107.

191 SOC at paras 6(e)–(h).

parts of the crankshaft.[192] In the present case, the defendant measured the crankshaft deflection of cylinder units #1 to #9 of the Main Engine on 6 August 2019.[193]

88 The plaintiff mounts two arguments in relation to this pleading, both of which I am not convinced of. Firstly, the plaintiff initially took the view that even though the deflection reading of Main Engine cylinder #1 recorded by the defendant was 0.14mm, which was within MAN's maximum allowable limit of +/- 0.14mm,[194] this reading warranted further action on the part of the defendant. According to Mr Singh, the reading was taken when the Main Engine was in a "cold condition", *ie*, when the Vessel was afloat in calm waters. Therefore, the reading could easily breach the limit when the Vessel operating conditions changed.[195] However, Mr Wilson observed that the maximum admissible deflection for Main Engine Cylinder #1 was, in fact, 0.20mm, because the connection between the Main Engine and the gearbox on the Vessel was by flexible coupling.[196] This correction took the wind out of the plaintiff's sails. Accordingly, Mr Singh conceded the point in his Reply Expert Report dated 20 March 2023.[197] Therefore, the defendant did not fail to ensure that the crankshaft deflection was within allowable limits.

89 Secondly, the plaintiff argues that the significant deviation between the "Top + Bottom" and "Port + Starboard" deflection readings clearly indicates

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192 Singh's 1st AEIC at p 27 paras 107, 111.

193 Anujit's AEIC at para 65.

194 *Ibid*; Singh's 1st AEIC at p 29 paras 120–121.

195 Singh's 1st AEIC at p 29 paras 122–125.

196 Wilson's 1st AIEC at p 34 para 11.5.

197 Singh's 2nd AEIC at p 12 para 54.

that the alignment of the crankshaft was improper. In particular, the "Top + Bottom" and "Port + Starboard" readings of cylinder #1 of the Main Engine had a discrepancy of four units which rendered it unreliable because in principle, there ought to be no deviation between both measurements.[198] Therefore, according to the plaintiff, the defendant ought to have taken another set of measurements to ascertain the alignment.[199] However, both experts agreed in the Joint Memorandum that Dalian Shunzhou did not do any repair work on the Main Engine to correct a misaligned crankshaft.[200] During the trial, Mr Singh also admitted that even after Dalian Shunzhou had conducted repairs on the Vessel, the deflection readings were the same as before.[201] Thus, according to Mr Singh, this issue posed no concern.[202] As a result, even if the defendant ought to, but failed to take a further set of deflection measurements, this has not caused any damage to the Main Engine.

Lube oil filter and sump of Main Engine replete with metal particles

90 I find that the defendant was not in breach of its duty in relation to this alleged Defective Work. In its Statement of Claim, the plaintiff claims that the defendant fell below the standard of care because "[t]he lube oil filter and sump of the Main Engine were found to be replete with a substantial number of metal particles".[203] This is evidenced by photographs taken of the lube oil filter by the

198 PCS at para 178–180.

199 Singh's 1st AEIC at p 30 para 128.

200 Singh's 2nd AEIC at p 36 para 6(iii).

201 Transcript (28 April 2023) at p 6 ln 21–25.

202 Transcript (28 April 2023) at p 8 ln 1–4.

203 SOC at para 6(a).

plaintiff on 16 August 2019.[204] The plaintiff also points to BV's Survey Report dated 16 September 2019, which stated that white metal particles were found in the lube oil filter on 17 August 2019.[205]

91 For context, the defendant subcontracted the flushing and cleaning of the Main Engine's lube oil systems to SPCO Holdings Pte Ltd ("SPCO")[206], and these works were carried out between 31 July and 3 August 2019.[207] After the discovery, the defendant had a discussion with MSI, and subsequently proposed to let the Main Engine run for at least 30 hours, on no load, and clean the lube oil filter every ten hours, as a potential way to clear the remaining debris from the Main Engine lube oil sump.[208] This procedure was carried out.[209]

92 Mr Singh claims that there was a substantial amount of metal particles in the lube oil filter and sump because the defendant did not carry out the cleaning and flushing of the lube oil system in accordance with the standard recommended procedure of the Main Engine maker, MAN,[210] and the procedure carried out by the defendant was not per standard marine practice.[211] However, Mr Wilson gave evidence that the procedure suggested by AME was "virtually the same as carrying out the sump tank-to sump tank flush … as discussed in

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204 Lee's AEIC at para 27 and pp 59–72.

205 1AB209; Singh's 1st AEIC at p 15 para 44.

206 Anujit's AEIC at para 35.

207 Wilson's 1st AEIC at para 7.3; Singh's 2nd AEIC at para 23.

208 Anujit's AEIC at p 730; Wilson's 1st AEIC at p 24 para 7.7.

209 Wilson's 1st AEIC at para 7.9.

210 Singh's 1st AEIC at p 15 paras 46–47.

211 Singh's 2nd AEIC at p 7 para 27.

the Main Engine's operations manual".[212] In any event, on 21 August 2019, the BV surveyor attended onboard the Vessel to physically inspect the lube oil filter and main bearings and found them to be satisfactory.[213] I note Mr Lee's suggestion that BV was misled to think that the defendant's suggested procedure came from the Main Engine maker, as the defendant had falsely claimed that it was "an authorised workshop of the engine maker, MAN".[214] However, in the BV Survey Report, BV recognised that the defendant was merely an "authorised workshop from Engine Licensee (*sic*)",[215] which the defendant had previously sent proof of to MSI.[216] Therefore, I find that BV was not misled when it decided that the lube oil filter and main bearings were satisfactory.

93 To conclude on this issue, I find that the defendant has not breached its duty of care.

Mitigation of losses

94 In the event that I have erred in deciding that the defendant did not breach its duty, I consider whether, correspondingly, the plaintiff mitigated its losses.

95 It is trite law that a plaintiff owes a duty to mitigate in respect of a claim in tort (*Pilgrim Private Debt Fund v Asian Appraisal Company Pte Ltd* [2022] SGHC 10 at [215]). This was succinctly explained by the High Court in

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212 Wilson's 1st AEIC at p 24 para 7.7 and p 69.

213 1AB209.

214 Lee's AEIC at paras 36–38.

215 1AB209.

216 7AB4457.

Cristian Priwisata Yacob and another v Wibowo Boediono and another and another suit [2017] SGHC 8 at [310]:

> … it is clear that the duty to mitigate arises in respect of both claims in tort and contract. Andrew Burrows in *Remedies for Torts and Breach of Contract* (Oxford University Press, 3rd Ed, 2004) at p 122 explains that the duty to mitigate "is a restriction placed on compensatory damages. A claimant should not sit back and do nothing to minimize loss flowing from a wrong but should rather use its resources to do what is reasonable to put itself into as good a position as if the contract had been performed or the tort not committed." In a similar vein, *The Law of Torts in Singapore* at para 20.098 summarises the principle as follows:
>
> > It is the defendant's burden to show that the plaintiff ought to have taken reasonable steps to prevent or reduce the plaintiff's loss arising from the defendant's tort. If the defendant is able to discharge his or her burden, the loss claimable by the plaintiff would be reduced accordingly. The question of mitigation is one of fact, not law. The standard of conduct expected of the plaintiff in mitigation is generally not a high one considering that the defendant is the wrongdoer.

96 The plaintiff made little attempt at mitigating its loss.

97 In my view, the plaintiff ought to have taken more prompt steps to execute the repairs of the Vessel and should have done so in Singapore. It was not reasonable for the plaintiff to have conducted the Vessel repairs in China. This placed the Vessel at a heightened risk of further damage and breakdown. Mr Wilson suggested that a reasonable ship owner would have called upon the expertise of any qualified marine engineering company in Singapore to inspect the Main Engine, and if necessary, bear witness to an additional sea trial. According to Mr Wilson, one such marine engineering company would include

MAN PrimeServ, the service brand for MAN Energy Solutions products (*ie,* the Main Engine maker), which has workshops in Singapore.[217]

98 The plaintiff's explanations for the inability of the Vessel to undergo repair works in Singapore are not credible. Firstly, the plaintiff claims that the Vessel could not stay in Singapore for a protracted period of time because of the policy of the Maritime & Port Authority of Singapore ("MPA"). According to the plaintiff, this policy discourages a vessel from staying in Singapore port waters for periods of more than ten days.[218] During the trial, Mr Lee claimed that the MPA had sent him a letter asking the plaintiff to move away their ship.[219] However, Mr Lee failed to produce this letter which he had claimed to have. He eventually conceded that he had received no contemporaneous written communication from MPA informing the plaintiff not to berth the Vessel in Singapore.[220] The plaintiff also tendered no evidence of any alleged meeting with the MPA where the MPA orally conveyed its policy to the plaintiff. Instead, the plaintiff subsequently produced two email exchanges initiated by him dated 12 April 2023. The first was between Mr Lee and Mr Zhao Xiaocheng, an employee of the MPA (the "First Correspondence").[221] The second was between Mr Lee and Mr Wong Kai Cheong, a former employee of the MPA (the "Second Correspondence"). In both exchanges, Mr Lee claimed that the plaintiff had a vessel arriving at Singapore and sought to berth at anchorage for maintenance and repairs for at least three months. He sought their

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217 Wilson's 2nd AEIC at p 17 para 8.2.

218 PCS at para 127.

219 Transcript (12 April 2023) at p 56 ln 8–12.

220 Transcript (12 April 2023) at p 134 ln 14–22.

221 PE-4.

advice as to whether the MPA would allow the plaintiff's vessel to be anchored in the Singapore port "for such a long time". In reply, Mr Zhao informed Mr Lee that the MPA cannot approve the vessel to stay for three months or more. Mr Wong responded by referring to the MPA's published port dues table for a vessel's stay in Singapore and stated that the MPA "still discourages vessel from staying in Singapore port waters for periods more than 10 days" (*sic*). I agree with the defendant's argument that both sets of correspondence are not contemporaneous evidence to support Mr Lee's claim that the MPA did not permit the Vessel to be berthed in Singapore. Instead, Mr Lee has sought to engineer this evidence to plug evidential gaps.[222] Even if the MPA presently adopts a strict policy on staying in Singapore port waters, the plaintiff has not provided me with any convincing evidence that the same policy existed at the material time.

99 Second, the plaintiff claims that in early September 2019, it contacted two shipyards, PaxOcean and ST Engineering, to carry out repair works for the Vessel. Both shipyards turned the plaintiff down. Therefore, the plaintiff sought out shipyards in China instead.[223] However, the contemporaneous emails from Mr Lee plainly show that he had contacted PaxOcean and ST Engineering specifically for repairs to the generators and some other minor repairs.[224] He did not specify that the scope of work would include repairs on the Main Engine. In fact, PaxOcean had declined to conduct repairs on the Vessel precisely because the scope of works was too little.[225] During the trial, Mr Lee sought to explain

222 DCS at para 385.

223 PCS at paras 124–125.

224 Agreed Bundle Volume 3 ("3AB") 1384–1385.

225 3AB1384.

that he had not sought for Main Engine repairs at the time because "nobody [knew] what [was happening]".[226] I find this explanation to be disingenuous. In his AEIC, Mr Lee claimed that at the material time, "[i]t was very clear that … the issues with the Main Engine had not been resolved or closed out", and "the Vessel was redelivered to [the plaintiff] under protest".[227] Therefore, the plaintiff did not make reasonable efforts to have the Vessel repaired in Singapore.

100 Third, the plaintiff argues that carrying out rectification works in China would cost less than if it was carried out in Singapore. Mr Singh had made a general comment based on experience that material and labour costs in China are generally 20% lower compared to Singapore.[228] However, these alleged costs savings must be weighed against the crew wages and ship management expenses that would be incurred as a result of the additional voyage. More importantly, this factor must be weighed against the condition of the Main Engine and the associated risks of sailing the Vessel. Mr Lee himself acknowledged that in deciding to sail to China, the plaintiff had taken a "risk".[229] On 25 October 2019, Mr Zhao Guangjun, the chief engineer of the Vessel ("CE Zhao") reported to Mr Lee that the Main Engine had difficulty starting. By 31 October 2019, according to CE Zhao, the Main Engine posed such a serious safety concern that "[i]t [was] very dangerous to take the ship out in this condition, so [the plaintiff] urgently need[ed] to fix it and fix this problem".[230]

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226 Transcript (12 April 2023) at p 44 ln 7–8.

227 Lee's AEIC at paras 45 and 47.

228 Transcript (28 April 2023) at p 84 ln 11–13.

229 Transcript (12 April 2023) at p 62 ln 23–24.

230 DCS at para 370; Lee's AEIC at paras 53–54.

Nonetheless, the plaintiff proceeded to sail the Vessel to China. Mr Lee alleged that this decision was supported by the professional advice received by the captain of the Vessel.[231] However, this was not recorded in writing.[232] Further, this went against the advice of CE Zhao, as stated in his written report. Mr Lee also claimed that precautionary measures were taken *en route* to China. In particular, the Vessel sailed close to the coastline and not in the deep sea,[233] and travelled "at a very *slow* speed".[234] However, this is not borne out by the evidence. Mr Wilson testified during the trial that "[t]he engine log books show the engine was operating between 62 and 75 per cent power on passage to China and not at 25 per cent as claimed by the plaintiff".[235] Mr Singh's Reply Expert Report goes even further to state that "[d]uring passage from Singapore to China engine was operated at wide range of speeds *including critical speeds* due to frequent engine troubles and heavy weather".[236]

101 In my view, there was also a significant delay in time between the redelivery of the Vessel and when the Main Engine was repaired. The length of the Downtime was unreasonably long. To recapitulate, the plaintiff claimed to have taken redelivery of the Vessel (on 31 August 2019) under protest, as it already had concerns about the state of the Main Engine. Nonetheless, from the point in time of redelivery, the Vessel remained in Singapore for almost three months before it finally commenced its voyage to China on 27 November 2019. Even after Mr Lee received CE Zhao's report on 25 October 2019 that the Main

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231 PCS at para 130.1; Transcript (12 April 2023) at p 53 ln 2–8.

232 Transcript (12 April 2023) at p 64 ln 20–23.

233 PCS at para 130.2.

234 PCS at para 130.1.

235 Transcript (26 April 2023) at p 68 ln 19–22.

236 Singh's 2nd AEIC at p 14 para 65.

Engine had difficulty starting, the plaintiff waited another month before sailing the Vessel to China for repairs. The Vessel arrived at Zhoushan on 16 December 2019. However, Dalian Shunzhou did not commence Main Engine repairs immediately. Instead, on 22 January 2020, the Vessel proceeded under its own power to an anchorage off Zhoushan, where it remained for over a month until it returned to the shipyard on 6 March 2020. The rectification works on the Main Engine only began on 9 March 2020.[237] According to Mr Lee, the rectification works were completed on 7 April 2020. The Vessel only left Yuanye Shipyard three weeks later, on 27 April 2020.[238] In his AEIC, Mr Lee sought to explain that the scheduled repairs were severely hampered by the COVID-19 situation at the time.[239] That was why the Vessel was berthed at the anchorage off Zhoushan between January and March 2020. Yet, the plaintiff failed to put any such evidence before me. In any event, given that it was unreasonable for the Vessel to undergo repair works in China, this point is moot.

102 Finally, it is telling that when Mr Singh was posed the question of why the repairs were not done in Singapore, he candidly answered that he did not have "any idea". He also had "no comments" on why the repairs were not done faster.[240] Therefore, I find that the plaintiff failed to mitigate its losses. For completeness, however, I reject the defendant's argument that it was entitled to rely on the limitation clauses in its repair contract with MSI to disclaim liability against the plaintiff. This is because the plaintiff is not a party to that contract.[241]

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237 Wilson's 1st AEIC at p 50 paras 16.1–16.3; AC at pp 2–3.

238 Lee's AEIC at paras 96–97.

239 Lee's AEIC at para 67.

240 Transcript (28 April 2023) at p 83 ln 19 to p 84 ln 16.

241 DCS at para 390; PRS at para 22.

Damages

103 Finally, I consider the extent of damages to be awarded to the plaintiff if the finding of fact was that the defendant was liable in negligence for the Defective Works.

104 In its Statement of Claim, the plaintiff claimed that it has suffered the following losses due to the deficient repairs by the defendant:[242]

Loss	**Quantum**	
	Amount in S$	**Amount in US$**
(a) Rectification and repair works		US$484,257
(b) Management costs during Downtime		US$79,048
(c) Crew wages and ship management expenses during Downtime		US$708,720.58
(d) Agency fees during Downtime	S$223,470.85	
(e) Bunkers, lube oil, fresh water and supplies to the Vessel during Downtime	S$6,200	US$461,200
(f) Insurance during Downtime		US$75,613.75
(g) Loss of charter income during Downtime		US$1,197,000

242 SOC at para 8.

	(converted to US$168,945.88)	
Total		US$3,174,785.21

105 I shall now examine the nature of the plaintiff's losses.

Rectification works

106 In relation to the rectification works, the plaintiff claims a sum of US$484,257. The plaintiff had paid RMB3,044,330.80 for the repair works conducted by Dalian Shunzhou. This comprised of material costs, labour costs, the cost of tools and transportation costs. Dalian Shunzhou's invoice breakdown sets out an itemised list of the different materials used, as well as their respective price.[243] However, the labour costs for the Main Engine repairs were charged as a lump sum, totalling RMB292,500.[244] The plaintiff's expert witness, Mr Singh, takes the view that RMB1,484,373 is the reasonable cost of repair.[245] He came to this figure by assessing whether the costs incurred for each item listed in Dalian Shunzhou's Invoice Breakdown was reasonable, and whether the time spent on the work was reasonable.[246] Conversely, the defendant takes the view that the plaintiff's claim for rectification works must fail because Dalian Shunzhou's repair works were unrelated to any of the Defective Works.[247] Given my finding that the plaintiff failed to mitigate its losses in carrying out the rectification works in China, I find that the cost of reasonable repairs should

243 Singh's 1st AEIC at pp 493–498.

244 PCS at para 189.

245 Singh's 1st AEIC at pp 50–52.

246 Singh's 1st AEIC at pp 37–52.

247 DCS at paras 321–322.

be calculated on the basis of the cost of repairs in Singapore. In this regard, Mr Wilson gave evidence that the repairs to remedy the Defective Works would have cost approximately S$90,000 (on the assumption that the Replacement Crankshaft main bearing pockets required reboring).[248] Notwithstanding that this sum is significantly less than the initial amount proposed by Mr Singh, I find it to be a reasonable amount for repairs. This is because Mr Singh's computation of the repair costs was premised on the Main Engine being totally dismantled to identify problems with the Main Engine. I accept Mr Wilson's evidence that the problems with the Main Engine could have been identified by running the Main Engine or attempting to start the Main Engine, and once identified, each problem would be repaired and eliminated.[249]

Downtime expenses

107 The plaintiff also claims for various expenses incurred during the Downtime of the Vessel, *ie,* between 31 August 2019 and 26 April 2020, a total of 240 days. This is the period from which the Vessel was redelivered to the plaintiff until the day before the Vessel left Yuanye Shipyard. JMC's obligation to pay the charter hire subsequently begin on 27 April 2020.

108 Given my finding that the plaintiff failed to mitigate its losses by declining to take prompt actions to repair the Main Engine, I do not allow the plaintiff to claim the expenses for the full duration of Downtime. I accept Mr Wilson's evidence that if the plaintiff had carried out the rectification works in Singapore, the repair works to remedy the Defective Works would have taken

248 Wilson's 1st AEIC at p 51, para 16.9.

249 Wilson's 2nd AEIC at p 27.

approximately 24 days.[250] In my view, this is a reasonable length of time. Comparatively, the Main Engine repairs in Zhoushan spanned around 30 days, and the experts agree that *some* of these repairs by Dalian Zhoushan were unrelated to the Defective Works.[251] Making an allowance for the time needed to find a repairer, berthing, unberthing and entering and leaving drydock, I would allow the plaintiff to claim for downtime expenses for a period of 45 days, *ie*, from 31 August 2019 to 14 October 2019 (the "Reduced Downtime").

109 Having accounted for the Reduced Downtime, I find that the remainder of the items of loss claimed by the plaintiff are losses flowing directly, naturally and in the ordinary course of events from the defendant's breach without other intervening causes and independently of special circumstances (see *Singapore Telecommunications Ltd v Starhub Cable Vision Ltd* [2006] 2 SLR(R) 195 at [59]–[60]). They are therefore direct losses that fall within the first limb of the *Hadley v Baxendale* (1854) 9 Exch 341 test for remoteness of damage (*Pan-United Shipping Pte Ltd v Cummins Sales and Service Singapore Pte Ltd* [2017] SGHC 198 at [86]).

Management costs

110 The plaintiff avers that as a result of the defendant's negligent repairs, the plaintiff had to incur time-costs to administrate the matter and ensure that the Vessel was repaired and placed in a seaworthy condition. The claim for management costs covers the time-costs of the plaintiff's personnel involved, namely, Mr Lee and his assistant. The plaintiff claims for a daily rate of

250 DCS at para 371; Wilson's 2nd AEIC at p 17 paras 8.2–8.3.

251 Singh's 2nd AEIC at Annex 2.

US$348.[252] The defendant did not submit on what a reasonable daily rate would be. I find that this is a commercially reasonable rate. Taking into account the Reduced Downtime, the defendant would be liable for **US$15,660** in management costs (*ie*, US$348 x 45 days = US$15,660).

Crew wages and ship management expenses

111 During the Reduced Downtime, the plaintiff had to bear the wages of the crew and the ship management expenses. Mr Lee gave evidence that a full complement of crew was required by the MPA to serve onboard the Vessel.[253] This was not challenged by the defendant. The crew lists provided by the plaintiff also evidence that a full complement of crew did serve on board throughout the duration of Downtime.[254] The plaintiff paid the crew's wages and crew transport expenses to Xiamen Panocean Maritime Services Co Ltd and Panocean (Shang Hai) Shipping Co Ltd, the crewing managers, (collectively, "Panocean"). These payments were made in accordance with the payment instructions in Panocean's invoices, and the amounts paid varied from month to month. I have set out the payments made for the months of August, September and October 2019:[255]

Month	Nature of payment	Amount
August 2019	Crew Wages	US$13,943.87
	Crew Transport (15 August)	US$4,780

252 PCS at paras 206–207.

253 Lee's AEIC at para 104.

254 PCS at paras 209–210; see 2AB699–756.

255 PCS at paras 211–212.

	Crew Transport (30 August)	US$1,740
	Subtotal	US$20,463.87
September 2019	Crew Wage (unbilled from August)	US$463.87
	Crew Wages	US$31,630
	Crew Change Fees	US$558.34
	Subtotal	US$32,652.21
October 2019	Crew Wages	US$42,938.39
	Crew Change Fees (plane tickets)	US$471.43
	Crew Change Fees (plane tickets)	US$1,800
	Crew Change Fees (plane tickets)	US$528.57
	Subtotal	US$45,738.39

112 I determine the defendant's liability for crew wages by first calculating the crew wages incurred on a daily basis for each month. For the months of August and October, the daily averages for crew wages are US$675.09 (*ie*, (US$20,463.87 + US$463.87)/31 days = US$675.09) and US$1,475.43 (*ie*, US$45,738.39/31 days = US$1,475.43) respectively. Thereafter, I sum the total crew wages based on the dates that fall within the period of the Reduced Downtime, which comes to a total of US$53,983.32 (*ie*, (US$675.09 x 1 day) + US$32,652.21 + (US$1,475.43 x 14 days)).

113 During the Reduced Downtime, the plaintiff also paid for the management of the Vessel, which was undertaken by Shanghai Jiongyuan (which is a related company to JMC).[256] The ship management fees amount to US$4,000 per month. The daily average for ship management fees in August and October 2019 is US$129.03. Adopting a similar approach in calculation, the defendant would owe the plaintiff US$5,935.45 in ship management fees (*ie*, (US$129.03 x 1 day) + US$4,000 + (US$129.03 x 14 days)).

114 In total, the defendant would be liable for **US$59,918.77** in crew wages and ship management fees (*ie*, US$53,983.32 + US$5,935.45 = US$59,918.77).

Agency fees

115 The plaintiff incurred agency fees for the period between 16 August 2019 and 27 November 2019 (*ie,* 104 days), which were paid to the plaintiff's appointed agent, JCL Marine Pte Ltd. This amounted to a sum of $219,088.85,[257] which included the port dues imposed by MPA.[258] Taking into account the Reduced Downtime, the plaintiff would be entitled to a sum of **S$94,798.06** (*ie*, (S$219,088.85/104 days) x 45 days) for agency fees.

Bunkers, lube oil, fresh water and supplies to the Vessel

116 The plaintiff also incurred expenses from the purchase of bunkers, lube oil, fresh water and supplies during the period of Downtime. According to the

256 PCS at paras 213, 215.

257 PCS at para 216; 2AB904.

258 PCS at para 217.

plaintiff, until the 27 April 2020, when JMC was charged for the bareboat charter, the plaintiff incurred all these expenses.[259]

117 The plaintiff paid US$10,300 for the lube oil and S$6,350 for the fresh water. In relation to the purchase of bunkers, the plaintiff exhibits an invoice from the seller, Kaiyuan Holding International Ltd ("Kaiyuan"), to the buyer, Eversea Shipping Pte Ltd, and guaranteed by the plaintiff, for a purchase price of US$138,500. However, the plaintiff is only able to show that it made payment of the sum of US$46,166 to Kaiyuan.[260] Therefore, the total amount paid for these expenses amount to US$56,466 and S$6,350. Assuming that these supplies are used evenly throughout the period of Downtime, I calculate a daily average for these expenses and multiply that sum by the number of days of Reduced Downtime. This amounts to a sum of **US$10,543.44 and S$1,185.68** (*ie*, ((US$56,466 + S$6,350) / 241 days) x 45 days).

Insurance

118 According to the plaintiff, until the "official start date of the charter" when JMC became obligated to pay the charter hire, *ie*, 27 April 2020, the plaintiff had to pay for insurance. Further, insurance was arranged by Shanghai Jiongyuan on the plaintiff's behalf. Therefore, payment was due to Shanghai Jiongyuan.[261]

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259 PCS at para 219.

260 PCS at para 220; P5SLOD at Tabs 1–5.

261 PCS at paras 221–223; 2AB881.

119 The plaintiff claims that the amount of insurance payable per day was US$313.75.[262] However, the invoice from Shanghai Jiongyuan dated 13 September 2019 states that the daily rate for the insurance during the period between 31 August 2019 and 27 November 2019 was US$270.[263] Based on the subsequent invoice from Shanghai Jiongyuan dated 12 May 2020, the daily rate for insurance was only increased to US$313.75 for the period between 28 November 2019 to 26 April 2020.[264] Therefore, I would award damages for insurance based on the daily rate of US$270. This amounts to a sum of **US$12,150** (*ie*, US$270 x 45 days).

Loss of charter income

120 During part of the Reduced Downtime, the plaintiff would have incurred a loss of charter income. The plaintiff entered into a bareboat charter of the Vessel with JMC on 26 September 2019.[265] According to the contract between the plaintiff and JMC, the charter hire was for a price of US$4,500 per day. Mr Lee claimed that this price was the prevailing market rate at the time.[266] The defendant did not challenge the plaintiff on this point and has not adduced any other evidence on what the market rate was at the material time.[267] Given that the plaintiff charged the same hire price to Bravely, I find US$4,500 to be a reasonable daily rate representing the plaintiff's lost earnings. Further, the contract between the plaintiff and JMC stipulated that the earliest time for

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262 PCS at para 223.

263 2AB879.

264 2AB881.

265 2AB830.

266 Lee's AEIC at para 110

267 PCS at para 228.

delivery of the Vessel was 30 September 2019.[268] Therefore, the plaintiff lost charter income from 30 September 2019 to 14 October 2019. This totals to a sum of **US$67,500** (US$4,500 x 15 days).

121 To summarise, if the defendant had indeed breached its duty of care to the plaintiff, it would have been liable to pay damages amounting to US$302,625.59. For the purposes of my decision, I have applied an exchange rate of US$1 = S$1.359, which was used by the plaintiff and not objected to by the defendant.

Loss	**Quantum**	
	Amount in S$	**Amount in US$**
(a) Rectification and repair works	S$90,000	
(b) Management costs during Downtime		US$15,660
(c) Crew wages and ship management expenses during Downtime		US$59,918.77
(d) Agency fees during Downtime	S$94,798.06	
(e) Bunkers, lube oil, fresh water and supplies to the Vessel during Downtime	S$1,185.68	US$10,543.44
(f) Insurance during Downtime		US$12,150

[268] 2AB830.

(g) Loss of charter income during Downtime		US$67,500
Subtotal	S$185,983.74	US$165,772.21
Total		**US$302,625.59**

Conclusion

122 For all the above reasons, I dismiss the plaintiff's claim. I will hear counsel on costs.

Lee Seiu Kin
Judge of the High Court

Max Lim Zhi Ming and Yip Li Ming (Rajah & Tann Singapore LLP) for the plaintiff;
Tay Yong Seng, Ho Pey Yann and Abdul Mateen bin Mohamed Nagib Bajerai (Allen & Gledhill LLP) for the defendant.