

Wartsila Singapore Pte Ltd v Lau Yew Choong and another suit
[2017] SGHC 76

Case Number : Suit No 168 of 2013 and Suit No 521 of 2013
Decision Date : 10 April 2017
Tribunal/Court : High Court
Coram : Belinda Ang Saw Ean J
Counsel Name(s) : Anthony Lee, Angelyn Cheng and Wang Liansheng (Bih Li & Lee) for the plaintiff;
John Sze Kian Chuan and Nicola Loh (Joseph Tan Jude Benny LLP) for the
defendant.
Parties : WARTSILA SINGAPORE PTE LTD — LAU YEW CHOONG — GENIKI SHIPPING PTE
LTD — AGA-INTRA SDN BHD

Agency – Principal – Undisclosed

Contract – Contractual Terms – Exclusion clauses

Contract – Duress – Economic

Tort – Negligence – Causation

10 April 2017

Judgment reserved.

Belinda Ang Saw Ean J:

Introduction

1 These two actions were heard together. Suit No 521 of 2013 (“Suit 521”) is an action brought by the plaintiffs, Geniki Shipping Pte Ltd (“Geniki Shipping”) and Aga-Intra Sdn Bhd (“Aga-Intra”), claiming damages from the defendant, Wartsila Singapore Pte Ltd (“Wartsila”), for the losses suffered by the plaintiffs as a result of engine breakdown which the vessel, *Geniki Sarawak*, sustained within three months of repairs that were carried out to her main engine by Wartsila from 25 November 2010 to 31 December 2010 (“the 2010 repairs”).

2 In the other action, Suit No 168 of 2013 (“Suit 168”), Wartsila is suing to recover the balance sum due to Wartsila for the repairs carried out to the main engine by Wartsila from March 2011 to June 2011 (“the 2011 repairs”). The defendant in Suit 168 is Lau Yew Choong (“LYC”), a director of Geniki Shipping and Aga-Intra. LYC’s defence, amongst others, is that the charges for the 2011 repairs are only payable by him if the engine breakdown on 19 March 2011, which necessitated the 2011 repairs, was not due to Wartsila’s poor workmanship and/or negligence in carrying out the repairs to the vessel’s main engine in 2010 (*ie*, the 2010 repairs).

3 The cause of the engine breakdown on 19 March 2011 is seriously disputed. In particular, the contest is over whether there is, factually, a causal connection between the breakdown and the 2010 repairs, which is now alleged to be done with poor workmanship and/or without reasonable care and skill. It is logical to deal with Suit 521 first.

Suit 521

4 After the 2010 repairs, the vessel resumed service on 13 January 2011. Unfortunately, after operating for 1,104.78 hours, the vessel's main engine failed on 19 March 2011, and that failure necessitated another round of repairs to the very same crankshaft that was replaced in the 2010 repairs. It is not disputed that the 2010 repairs to the main engine included replacement and renewal of the crankshaft, complete sets of main and crankpin bearings and three connecting rods. The plaintiffs are understandably aggrieved that the vessel suffered various engine problems within three months of the 2010 repairs that were carried out under Wartsila's warranty. Wartsila denies that the crankshaft seizure that led to main engine failure on 19 March 2011 had anything to do with the 2010 repairs and, instead, assigns blame to the vessel's shipboard operation and maintenance procedure. Accordingly, Wartsila maintains that the cost of repairs incurred for the crankshaft and bedplate, which is the subject matter of the 2011 repairs and Suit 168, is payable by LYC.

5 The issues in Suit 521 are as follows:

(a) Is Aga-Intra entitled to claim damages even though Wartsila's contract for repair of the *Geniki Sarawak's* main engine was made with Geniki Shipping?

(b) Is Wartsila in breach of contractual duty and/or liable in tort for negligence in carrying out the 2010 repairs?

(c) Is the breach of contract and/or duty of care the cause of the engine breakdown on 19 March 2011 and thus the plaintiffs' loss?

(d) Is Wartsila's liability for all or part of the claim excluded or limited by any standard terms or conditions?

(e) Are the conditions of contract or any of them not available to Wartsila by reason of the Unfair Contract Terms Act (Cap 396, 1994 Rev Ed)?

6 The issue of causation is significant for the reason that Suit 521 can be disposed of if causation cannot be established on the balance of probabilities. It is, therefore, logical to look first into the factual issue of causation (assuming but without deciding on matters such as breach of contract or breach of duty of care). In this judgment, I will consider the explanations as to how the crankshaft seizure on 19 March 2011 happened and will also evaluate the expert witnesses' theories and overall evidence to decide on whether the engine failure on 19 March 2011 was more likely than not due to Wartsila's failure to carry out the 2010 repairs with reasonable care and skill.

Causation

Engine failure on 19 March 2011

7 On 18 March 2011, while manoeuvring to berth at Singapore, the vessel's main engine reportedly shut down suddenly, but the crew managed to restart it. After completion of cargo operations, the Chief Engineer inspected the bearings and connecting rods of the main engine and the crew cleaned three filters: the main filter, duplex filter and fine filter. Thereafter, the vessel departed Singapore for Port Klang.

8 On 19 March 2011, whilst manoeuvring to berth at Port Klang, the vessel's main engine reportedly shut down again. The crankcase was opened for troubleshooting. Investigation by those on board the vessel revealed damage to main bearings No 4 and No 8, and that the crankshaft had stalled – the crankshaft turning gear was jammed. The main engine breakdown report dated 19 March

2011, signed by the Chief Engineer of the *Geniki Sarawak*, Aye Min Lwin ("Chief Engineer"), and acknowledged by the Master, Peter Gabriela Nyagom ("Master") states: [\[note: 1\]](#)

Statement of Main Engine Breakdown

On the 18th, March, 2011 at s'pore vessel in the process of the berthing when vessel ahead to astern changed position, M/E suddenly shut-down and a few minutes start back. Completed loading sailing to port klang.

On the 19th, March, 2011 at port klang vessel at anchorage standby engine starting time all pressure and parameters were good conditions. When vessel process of the berthing M/E suddenly shut-down and cannot start. Vessel proceed to anchorage for further inspection. At 1033 hrs vessel drop anchor. At 1040 hrs engine crew immediately take action and proceeded to open the crankcase doors and carried out a full visual inspection on the M/E piston, con rod bearings and main bearings. All bearings condition, temperature and piston free movement were checked and all engine room parameters were checked too. At the same time all pressure were good condition, lub oil pressure is 0.55 Mpa. During the inspection we found out the unit No. 4 and 8 main bearings shall was damaged. No 4 and 8 unit main bearings were badly damage can be seen from the crankcase inspection. The con rod bearings were all good condition, further inspect on the unite No 8 piston, liner, piston rings and all unit con rod bearings were showed no damage and was in good condition. Crankshaft was can't turn, because No 4 and 8 main bearings were jammed.

We're request superintendent to call technician with special tools and assist engine crews to removed the unit No 8, 7, 6, 5, 4 and No 3 main bearings.

This report made to the best of my knowledged.

9 Wartsila's personnel attended on board the vessel on 23 March 2011. Preliminary investigations revealed cracked lines at the centre area of both No 4 and No 8 main journals and an increase of hardness value. The vessel was subsequently towed to Wartsila's yard in Singapore for repairs to the crankshaft and bedplate.

Investigations after the engine failure on 19 March 2011

10 Following the incident on 19 March 2011, Geniki Shipping sent the vessel's lubricating oil for analysis by Maritec Pte Ltd ("Maritec"). Maritec's report dated 1 April 2011 indicated that the lubricating oil used was normal and fit for further use. Wartsila also submitted lubrication oil samples to SGS Testing & Control Services Singapore Pte Ltd ("SGS"). SGS's report dated 31 March 2011 revealed that there were no issues with the lubrication oil samples obtained from the vessel's storage tank and sump. The samples' parameters were within acceptable limits, and the lubrication oil was fit for use.

11 On 30 March 2011, Guangzhou Diesel Factory ("Guangzhou Diesel"), the engine maker, attended to investigate the nature, extent and cause of the engine breakdown. Physical damage that was visible was noted. Guangzhou Diesel, however, remarked in its report dated 28 April 2011 that the engine had been completely dismantled, leaving limited evidence available to enable it to assess the extent of the damage. Guangzhou Diesel's report therefore did not specifically opine as to the cause of the breakdown.

12 Wartsila appointed Det Norske Veritas ("DNV") to conduct a failure analysis on the damaged

main bearings No 4, No 5 and No 7 in order to establish the mode and primary cause(s) of the main bearings failure. DNV also analysed a new set of main bearings for compliance with Chinese national standards. DNV's first report no. 1-3B0R39 dated 12 May 2011 concluded that main bearings No 4 and No 5 failed in the manner of both abrasive and adhesive wear. DNV found in main bearing No 4 evidence of coating deficiency such as non-uniform coating layers, poor coating adhesion and chemical composition segregation. DNV's second report no. 1-32UJSN-50 dated 22 July 2011 was on a new set of main bearings and it concluded that the bearings analysed were not in compliance with the Chinese national standard CB*3264-85. It appears that Guangzhou Diesel had rejected the correctness of DNV's test results and the plaintiffs also did not agree with DNV that the failure of the bearings was due to coating deficiency citing problem-free bearings from the same source (Guangzhou Diesel). In the present case, the parties have not brought up defective material as contributing to the engine breakdown on 19 March 2011.

13 On 5 April 2011, Wartsila and Aga-Intra jointly appointed Braemar Technical Services Ltd ("Braemar") to carry out a survey and report on the main engine breakdown on 19 March 2011. Braemar's report GSS No. 309271 dated 10 October 2011 ("the Braemar Report") stated, *inter alia*, as follows: [\[note: 2\]](#)

- (a) Nos 4, 7, 8, 9 and 10 main bearings were heavily wiped and scored. No 4 and No 8 main bearings showed signs of bearing metal disintegration and signs of overheating (No 4 and No 8 main journals exhibited signs of ovality with multiple heat cracks and hardness value exceeding allowable limit);
- (b) Crankpins and crankpin bearings were all only lightly scored, with the exception of No 7 crankpin being moderately scored, and No 5 crankpin bearings having deep score lines on one side;
- (c) One-sided metal wiping and scoring pattern on No 9 and No 10 main bearings; and
- (d) The lubrication system's last stage filter element (basket) for lubrication oil filter ("LSBF") was variously torn with mesh material missing.

14 The Braemar Report went on to observe that it is not always possible to determine with certainty the main and exact cause of damage, particularly when the findings revealed more than one issue that might have contributed to the failure. It listed several contributing factors: [\[note: 3\]](#)

- (a) Bearing failure as a result of lubrication oil starvation or contamination. Lubrication oil starvation was said to be "unlikely" as the condition on undamaged journals and bearings was inconsistent with total lubrication failure. Lubrication oil contamination was said to be a possible cause due to missing materials from the LSBF finding their way between the main journal and bearing metal and hence causing damage;
- (b) Operation records and performance data revealed some appreciable differences in fuel racks position, power distribution and engine's exhaust temperatures. Although fuel injectors and fuel pumps were renewed after the 2010 repairs, the records showed that there were some still unbalances resulting in overloading in some units. The overspeed on 11 January 2011 could have exacerbated the overloading of the units, and if no thorough check was done on the main engine components after the overspeed incident, any damage to the main bearings from the overspeed would be left unchecked and progressively cause further damage over time; and
- (c) Latent defects found in bearings not manufactured in accordance to standard

requirements (this was however expressed to be “unlikely the main or sole factor that caused the premature failure”).

15 On 22 October 2012, a year after the Braemar Report was issued, Aga-Intra instructed TCL Engineering & Consulting Services Pte Ltd (“TCL”) to opine on the factual cause(s) leading to the main engine failure on 19 March 2011. TCL’s findings were based on a review of documents made available to them and on information gathered from meetings with Aga-Intra’s representatives. TCL’s report dated 1 November 2012 noted a “small possibility that poor alignment of the crankshaft during the [2010 repairs] led” to the engine failure on 19 March 2011. [\[note: 4\]](#) TCL observed that the alignment of the crankshaft when it was put in operation could not be ascertained since Wartsila had not taken a set of crankshaft deflections after the sea trials ended. Nonetheless, TCL “strongly believe [*sic*] that the crankshaft main journals had run out of trueness as a result of the serious overspeed [that occurred on 11 January 2011]. The main bearings most probably had also suffered some degree of injury during this overspeed incident.” [\[note: 5\]](#) In support of TCL’s view that the crankshaft’s main journals had run out of trueness, TCL referred to photographs of the main bearings taken after the 19 March 2011 breakdown that showed uneven wear on some of the bearings; and a report from the engine maker, Guangzhou Diesel, stating that the flexible coupling connecting plates that connected the main engine to the gearbox was found bent with 3mm deflection. As for the overspeed incident, TCL deduced from the photographs of loosened tappet adjustment screw lock nuts on various cylinder head rocker arms assemblies and damage to the unit 6 exhaust valve that the overspeed incident was serious. Whilst Wartsila had tested the emergency stops and carried out overspeed trip tests on 13 March 2011, TCL criticised Wartsila for not carrying out a thorough check on the condition of the main engine’s components.

The parties’ pleaded case as to the cause of the engine breakdown

16 The plaintiffs’ pleaded case on the 2010 repairs is that Wartsila had breached the express warranty as to workmanship pursuant to cl 1.4 of the Quotation dated 26 November 2010 (“the 2010 Quotation”), or alternatively, Wartsila, in breach of contract and/or duty of care, failed to exercise the care and skill expected of a reasonably competent provider of maritime engine repair and maintenance services. [\[note: 6\]](#) To this end, the plaintiffs argue that the engine breakdown on 19 March 2011 was *possibly* [\[note: 7\]](#) caused by the alignment of the crankshaft seeing that Wartsila had omitted to carry out crankshaft deflections and checks on the main bearings after the sea trials to ensure that the crankshaft alignment was satisfactory. The situation was then exacerbated by the overspeeding incident on 11 January 2011 which could have resulted in undue stresses to the crankshaft. Another possible cause of the damage to the main engine on 19 March 2011 cited by the plaintiffs was lubrication oil contamination as a result of the broken filter elements from the LSBF. This LSBF is the “final stage” screen for lubrication oil to pass through before entering the main engine. The plaintiffs’ position on this is that Wartsila, as a responsible repairer, ought to have been aware of the LSBF and should have ensured that the LSBF was not left in the engine system (*per* Operating Manual for 8320 Marine Diesel Engine (“the Operating Manual”)) and should have removed the LSBF after the completion of the flushing of the lubrication oil system, an operation that was part of the contracted job scope in relation to the 2010 repairs. Wartsila thus failed in its duty to remove the LSBF or recommend the removal of the LSBF following the flushing of the lubrication oil system.

17 Wartsila denies breach of the warranty clause and/or any failure to exercise reasonable care and skill in the performance of the 2010 repairs. Above all, Wartsila argues that the plaintiffs have not discharged the requisite standard of proof to succeed in this action. Wartsila observes that the plaintiffs’ approach to proving the claim up to the standard of probable cause is flimsy as indicated by their own comments such as “it can be any of the factors” or “no one can tell”. Hence, the plaintiffs

have failed to demonstrate how any of the alleged causes led to the damage on 19 March 2011. [\[note: 8\]](#)

18 A chronology of the crankshaft alignment tests taken as part of the 2010 repairs is narrated below (at [51]). Suffice to say for now that Wartsila disagrees with the plaintiffs' interpretation of the 16 December 2010 laser alignment data and the 28 December 2010 crankshaft deflection data, and also objects to the plaintiffs' use of two curves plotted with reference to the 16 December 2010 laser alignment data and the 28 December 2010 crankshaft deflection data since graphical depiction is neither a method specified in the Operating Manual nor a standard practice of competent ship repairers. [\[note: 9\]](#) As regards the crankshaft deflection curve, Mr Wee made use of deflection values that were estimates to provide the bearing elevation profile.

19 As for the overspeed incident on 11 January 2011, Wartsila submits that there was no palpable evidence that an engine overspeed occurred. If overspeeding had in fact occurred, the damage to the main engine would have been immediate and disastrous unlike in the present case where the vessel continued to sail at its usual operating speed shortly after. As for the last potential cause relating to the LSBF, Wartsila is unsure whether the plaintiffs are relying on the LSBF as an independent cause, or treating it as interlinked and contributory in relation to the other alleged causes. Wartsila does not accept that the flushing of the lubrication oil system of the vessel was its responsibility; instead, it takes the view that maintenance of the lubrication oil system was part of the crew's operational responsibilities.

20 Wartsila avers that the main engine breakdown on 19 March 2011 was caused by the vessel's operation and the crew's maintenance of the main engine and/or supply and use of defective equipment and parts in the operation of the main engine. In particular, there was failure to investigate or detect the cause of the breakdown of the main engine after the engine had shut down on 18 March 2011 in Singapore. Instead, the crew continued to operate the main engine for another 12 hours or so until the main engine failed at Port Klang. This 12-hour long sailing led to severe wearing down of the bent crankshaft as well as main bearings No 4 and No 8. Wartsila's pleaded case is that had the crew carried out timely and proper investigation, the damage could have been detected and minimal repair would have been required. [\[note: 10\]](#)

Evaluation of the evidence

General comments

21 The plaintiffs did not call the Chief Engineer and the Master to testify at the trial. Without the Chief Engineer's oral testimony, his report set out in [8] above could not be assumed to be entirely accurate, though no one suggested that it was not. It was the only written record of the sequence of events on which the experts voiced their opinions. Even though the Second Engineer, Bambang Prayogi ("Bambang"), testified at the trial, he was not asked about the Chief Engineer's report. However, he elaborated that a technician was despatched from shore and the technician opened the crankcase to look into the main engine failure on 19 March 2011. [\[note: 11\]](#) During re-examination, Bambang explained that the Chief Engineer inspected the bearings and connecting rods on 18 March 2011 after the engine shut down. He testified that three filters were also cleaned. The Chief Engineer's report on the incident on 18 March 2011 was brief and the Chief Engineer did not record the matters that Bambang spoke about in re-examination.

22 I did not hear evidence from Guangzhou Diesel and TCL. I also did not hear evidence from Braemar's attending surveyor. It was all left to the expert witnesses to opine on the nature and

extent of the damage recorded and the repairs that were conducted by reference to the documents produced by the parties. Even though the Second Engineer, Bambang, testified at trial, his testimony was limited and there was a noticeable absence of direct evidence from anyone on watch on his observation of temperature or pressure on the engine's gauges, and of the increase in lubrication oil consumption over three days prior to the shutdown of the engine on 18 and 19 March 2011. One notable feature of the documents at trial was the unsigned copies of engine logs produced by the plaintiffs for the period 12 March 2011 to 20 March 2011 [\[note: 12\]](#) and that meant that the reliability of the engine logs could not be taken as read in the absence of evidence as to their accuracy. Presumably, provenance is not an issue as the unsigned engine logs were in the Agreed Bundles where authenticity of documents contained therein is accepted. Again, from the Chief Engineer's absence at the trial, it was left to the expert witnesses to interpret the Chief Engineer's e-mails that purportedly reported an overspeed on 11 January 2011.

Plaintiffs' evidence on causation

23 I begin with the plaintiffs' evidence on causation. Geniki Shipping's general manager, Lim Woei Pyng ("LWP"), who is also known as Michael Lim, testified as to Wartsila's poor workmanship with the general complaint that the main engine did not function at its optimum after the 2010 repairs. Wartsila renewed the crankshaft in the 2010 repairs and there was misalignment of the crankshaft that had to do with Wartsila's workmanship. Following the incident on 19 March 2011, the crankshaft had to be replaced in the 2011 repairs. LWP described the misalignment of the crankshaft as "one of the factor [*sic*]" that caused the engine breakdown on 19 March 2011. [\[note: 13\]](#) Furthermore, there was an overspeed incident on 11 January 2011 and the condition of the main engine was left unchecked by Wartsila and that omission "could be [a] contributing" factor. [\[note: 14\]](#) The plaintiffs argue that the "combination of these two factors" was "one of the very likely cause" [\[note: 15\]](#) of the engine breakdown on 19 March 2011. I understood the plaintiffs to have in mind two events that occurred at different times in sequence, and the cumulative effect of both events (*ie*, factors) led to the breakdown on 19 March 2011. Specifically, the crankshaft was not aligned properly prior to the engine start up (hereafter referred to as "the crankshaft alignment argument"). The crankshaft alignment argument encompasses a few additional thoughts: the crankshaft's alignment was left unchecked in that Wartsila had on a number of occasions failed to re-assess and take necessary corrective actions to reduce the stresses to the main bearings. LWP's further point is that Wartsila ought to but did not carry out a thorough crankcase inspection for damage after the overspeed incident on 11 January 2011. A thorough inspection would include checking the condition of the cylinder liners, pistons and tightness of the connecting rod bolt from the crankcase. With overspeed, the condition of the running components of the engine would have been subject to excessive vibration and stresses. The complaint was that the condition of the main bearings was not assessed after the overspeed incident. Photographs taken after the main engine failure on 19 March 2011 revealed uneven wear of some of the main bearings. Hence, the totality of the evidence supports the plaintiffs' case that the crankshaft main journals had run out of trueness as a result of the overspeed incident on 11 January 2011. To LWP, the loosening of the tappet adjustment lock nuts and the damage sustained by the unit 6 exhaust valve were collectively a "sign" indicative of engine overspeed. There are other complaints and I will deal with them later on.

24 As alluded to (at [23] above), the argument is that the contributing factors at work had a progressive and cumulative effect arising from a sequence of events. In terms of legal causation, in determining which of LWP's two factual causes could be said to be the cause for the purposes of legal liability of the engine breakdown, the plaintiffs' expert witness, Mr Wee Swee Kwee ("Mr Wee"), in his oral testimony said that either of the two factual causes described by LWP would support his theory of lubrication oil starvation. Notably, in the course of the trial, Mr Wee expanded the range of factors

from two to four factual causes of the damage to the crankshaft. According to Mr Wee, any one factor alone can suffice to support his theory of lubrication oil starvation. [\[note: 16\]](#) He identified four building blocks or indicators: (a) crankshaft misalignment causing stress; (b) overloading of the affected bearings; (c) further stress from overspeeding, and (d) evidence of some one-sided metal wiping.

25 At this juncture, I pause to mention the plaintiffs' complaint about the engine's performance after the replacement and tuning of all the fuel pumps and injectors as recommended by Wartsila. The plaintiffs seem to have dropped this complaint as a probable cause of the main engine failure on 19 March 2011 altogether in their closing submissions. Their expert witness, Mr Wee, accepted that the fuel pumps were adjusted after their renewal, and that the adjustments were satisfactory. More importantly, he opined that even if the fuel pumps were not adjusted properly, and whilst it could be a contributing factor, it was not likely to be a direct cause of damage to the crankshaft. [\[note: 17\]](#)

26 As regards Mr Wee's second building block or indicator (at [24] above), this seems to coincide with the second contributory factor listed in the Braemar Report and summarised in [14] above. The performance data taken on 31 December 2010 showed that the engine was not in a balanced condition. It appeared that the crew had adjusted the fuel pump racks based on cylinder temperatures, and to Wartsila's expert witness, Mr Michael Thompson ("Mr Thompson"), this practice is not correct and it probably resulted in the unbalanced load, speed fluctuation and the incorrect fuel pump rack setting which prevented the engine from stopping. Mr Thompson further opined that the engine's unbalanced condition was made worse because some of the existing exhaust gas thermometers were "suspect/defective". The engine's balance was restored on 13 January 2011 based on Wartsila's "Engine Running Data" dated 14 January 2011. Mr Thompson opined that the data showed that the main engine's performance during the sea trial on 13 January 2011 was satisfactory with balanced exhaust temperatures and fuel rack index in all the cylinders. [\[note: 18\]](#)

27 I now turn to discuss the various factors relied upon by the plaintiffs.

Overspeed on 11 January 2011

28 The factual issue here is whether or not an engine overspeed occurred on 11 January 2011. A finding of fact on this issue is important since the plaintiffs' pleaded case is that Wartsila had failed to assess the condition of the crankshaft and its alignment following the overspeed incident on 11 January 2011. It is also the plaintiffs' pleaded case that Wartsila should have assessed the condition of the engine's running components after the overspeed incident.

29 Wartsila has rejected the plaintiffs' claim of an engine overspeed on 11 January 2011. Mr Thompson testified as to the absence of any evidence of an engine overspeed on 11 January 2011. To Mr Thompson, an engine overspeed is referable to an "overspeeding condition" which is a situation of excessive uncontrollable rotational speed that would result in damage to the engine, *ie*, a runaway engine. [\[note: 19\]](#) The first manifestation of overspeeding would be crankpin bearing failure which was not seen in the case here. [\[note: 20\]](#) If there was crankpin bearing failure, the main engine would not be able to run after the incident. However, the crew was able to run the engine at 450 revolutions per minute ("rpm") after the alleged overspeed incident, meaning that the engine was operating normally. [\[note: 21\]](#) In fact, the vessel was able to continue in service for more than 1,100 hours until 19 March 2011. Follow-up investigations after the engine failure on 19 March 2011 confirmed that there was no crankpin bearing failure.

30 To show that there was an engine overspeed on 11 January 2011, the plaintiffs relied on e-

mails sent by the Master/Chief Engineer and by Geniki Shipping to Wartsila on 11 January 2011, loosened tappet adjusting nuts of the rocker arms as well as notification of the incident to Wartsila's engineer, Sou Chai Kwee ("SCK") when he attended on board the vessel on 13 January 2011. In addition, some black and white photographs were exhibited by LWP in his Supplementary Affidavit of Evidence-in-Chief ("SAEIC"), but these photographs had little evidential value. There were no date stamps on the photographs and LWP could not tell when the plaintiffs' technical superintendent of the vessel, Mr Tilak Raman ("Raman"), received the photographs. [\[note: 22\]](#) Mr Wee's reports did not refer to or rely on them, and eventually there was no mention of the photographs in the plaintiffs' closing submissions.

31 The Master/Chief Engineer's first three e-mails (on 11 January 2011, at 2.34pm, 4.38pm and 7.44pm) were to Raman, who was not called to testify on behalf of the plaintiffs. He would have been a useful witness. As stated earlier, the interpretation of the e-mails were left to the expert witnesses.

32 The e-mails (with LWP copied in them) were to inform Raman of a situation on board where the injectors had blacked out, No 8 fuel pump had stopped working, the fuel pump had been knocking and the "free gear [had] suddenly [come] to over speed". [\[note: 23\]](#) It is useful to set out the contents of the three e-mails:

Email at 2.34pm [\[note: 24\]](#)

Subj+ M/E NEW INJECTOR BLACK OUT

Good day,

M/E NEW INJECTOR ALL BLACK OUT, ARRIVE SIN ALL CHECK FUEL PUMP AND INJECTR, ENG SOUND VERY STRONG, NOW USE DO FOR SAILING

Email at 4.38pm [\[note: 25\]](#)

Subj+Main engine slow down free gear come to over speed

Fyi, Main engine slow down free gear come to over speed, n No: 8 fuel pump unable working (Problem). M/E sea water outlet valve broken. Request Arrival Sin all fuel pump injectors to be check include govanors.

Email at 7.44 pm [\[note: 26\]](#)

Subj+Main engine problem

Fyi, Fuel pump knocking, n reduce Main engine RPM, slow down, free gear suddenly coming to over speed.

33 LWP accepted that the e-mails were unclear and that Raman had to seek clarification from the Master/Chief Engineer. Raman's e-mail dated 11 January 2011 at 9.46pm to the Master/Chief Engineer stated that the e-mails "regarding main engine [were] not clear and [they were] having a very hard

time understanding the e-mails". [\[note: 27\]](#) He asked, amongst other things, for the speed of the engine and at what speed the engine became disengaged. He also wanted the readings taken at full speed. As Raman, the Master and the Chief Engineer all did not testify in court, it is not known if Master or Chief Engineer telephoned Raman as he requested in his e-mail. Raman's subsequent e-mail dated 12 October 2011 referred to the 11 January 2011 incident as follows: that he "received e-mail from vessel informing [that the] main engine *almost* came to overspeed and engine noise very loud" [emphasis added]. [\[note: 28\]](#)

34 Whilst the engine log recorded an emergency stop at 1245 hours, the overspeed incident was not recorded. Besides, based on the engine logs in the Agreed Bundles, the speed at which the engine was put to run in service was normally and consistently 460 rpm. Notably, Bambang did not testify as to the actual occurrence of an engine overspeed on 11 January 2011. One would have expected him to be asked to elaborate on the speed and the corresponding duration that the engine was put to run before the emergency stop at 1245 hours. Duration and rotational speed are pertinent information. In fact, Wartsila had asked for the same information when the overspeed incident was conveyed by the Chief Engineer to Wartsila's engineer, SCK, who attended on board the vessel on 13 January 2011. SCK confirmed that the Chief Engineer reported that the main engine had suffered from overspeeding on 11 January and that the vessel was unable to stop due to a problem associated with No 8 fuel pump. SCK wanted to know the speed at which the overspeed had occurred but the Chief Engineer could not tell him the "rpm that they have suffer[ed]". [\[note: 29\]](#) SCK's testimony was not challenged in the absence of the Chief Engineer and Raman. I find on the evidence that an incident with the main engine was reported to Wartsila's SCK on 13 January 2011. Given the lack of relevant details, SCK's decision to conduct emergency stops and overspeed trip tests was reasonable.

35 For the reasons stated above, it would be unsafe to accept at face value, the Chief Engineer's usage of the phrase "over speed" in his e-mails and in his conversation with SCK to conclude that an actual overspeed incident occurred on 11 January 2011. Without evidence of the actual engine speed and its duration before the emergency stop at 1245 hours, the plaintiffs are not able to establish that before the emergency stop at 1245 hours, the engine's speed was in excess of 525 rpm.

36 By way of explanation, Mr Wee said that overspeeding occurs when the main engine is forced or allowed to run beyond its operation or design limit. In this regard, the design limit of the main engine is the rated speed of 525 rpm. Hence, 525 rpm would be the maximum rpm at which the engine would be expected to run safely and normally on a continuous basis. Supposing the rotational speed exceeded 525 rpm, the overspeed incident on 11 January 2011 "might [have caused] possible damage". [\[note: 30\]](#) Mr Wee did not refer to the length of time and the actual rpm the engine was allowed to continuously run in excess of the design limit of 525 rpm. It seems that Mr Wee's view is that damage could be sustained even if the overspeed incident occurred once on any particular day. Mr Wee's explanation that one such incident could still bend the crankshaft, referencing evidence of a bent crankshaft after the 19 March 2011 engine breakdown.

37 Mr Thompson's view, however, is that even if the engine speed exceeds the rated rpm of 525, there would be no overspeeding condition. Based on the Operating Manual, 588-604 rpm is the stated rpm rotational speed range beyond which the overspeed limiter would be activated to prevent damage to the engine. The optical and acoustic alarm would be triggered if the pre-set range is exceeded. Mr Thompson opines that there would probably be damage to the main engine only if the engine ran above the safety trip of 604 rpm; and because engines are always designed with a "factor of safety, any rotational speed below 604 rpm will not "cause any problem to the engine". [\[note: 31\]](#) I find his explanation logical whilst Mr Wee's response – that the safety trip was to prevent *further* damage to the engine as engineers are supposed to take action before the trip is set off – is dubious. Accepting

Mr Wee's view would be tantamount to accepting that the engine maker in coming to its recommendations was fine with "possible damage" whenever the engine was operating outside of the rated overspeed of 525 rpm. Mr Wee's view is not LWP's position which is that the main engine would not be damaged even *if* the engine had reached the overspeed trip set at 560 rpm on 11 January 2011. It should be noted that the overspeed trip device was set at 560 rpm on 30 December 2010 and that was the trip limit until it was increased to 565 rpm on 14 January 2011.

38 Wartsila is not disputing that on 11 January 2011, No 8 fuel pump was found to be defective and the vessel experienced an engine surge which was subsequently reported to Wartsila. Mr Thompson opined that the defective No 8 fuel pump could have caused the main engine's speed to fluctuate, and this speed fluctuation would have given the impression that the engine was overspeeding: [\[note: 32\]](#)

A: ... [I]f I see from email, page 988... "[For your information], fuel pump knocking", and then they reduce the main engine rpm, slow down "free gear suddenly coming to overspeed".

I would interpret it this way, your Honour. What has happened is they had problem with the fuel pump so the next step they did was to reduce the engine rpm..

Then the main engine slowed down. After the main engine slowed down, they freed the gear to disengage the engine before you do any repairs on the engine. You free the gear. But because when you free the gear with number 8 fuel pump sticking, there would be an overrun at the low load.

...

... What happened is that number 8 fuel pump was sticking, and because it was sticking in the fuel "on" position, so only the fuel pump of number 8 contributes to that overspeeding. When I go back to page 1388, as Mr Wee has recommended, they mentioned that the main engine almost came to an overspeed and, to me, that is possible because number 8, the engine load was low and she was not taking the full force, The full force was not being removed suddenly, in other words she was already at a very low speed.

So when you disengage, the crew did rightly by disengaging, but not realising the fuel pump was defective. If the fuel pump is defective, it will cause [an] overspeed.

...

And the comment is "almost came to an overspeed". So my opinion is that the safety trip device activated, so she went on overspeed above 525 but the engine probably was stopped... my opinion.

39 As for Mr Wee's testimony on the engine surge that brought on an overspeed, he said: [\[note: 33\]](#)

Q: Once there's a disengagement the engine runs into overspeed?

A: Yes, because the engine when its trying to push an object at full load, you use all your strength. Suddenly, the load is taken off, it will surge forward. So the engine will surge forward and run overspeed definitely. That is basic.

40 Mr Wee's explanation assumed that the rotational speed had at least exceeded the rated speed

of 525 rpm. As stated, there is no evidence of the rotational speed at the material time.

41 I turn to the other "signs" of an overspeed. Although LWP accepted that there was no entry in the engine log that recorded an engine overspeed on 11 January 2011, his attempt to deduce an overspeed from the entry of an "emergency stop" at 1245 hours was speculative. LWP rightly accepted that besides overspeed, there could be other reasons that would necessitate an emergency stop.

42 As for the locking nuts of the rocker arm mechanism that came loose, Mr Wee pointed to that piece of evidence as a sign of overspeeding, and LWP's evidence is that it is uncommon for all eight units of rocker arm nuts to come loose at the same time. Mr Thompson opined that the loosened nuts were more likely to be due to inadequate tightening, as overspeed could not loosen a secured nut. Loosened nuts were reportedly observed occasionally without occurrence of overspeeding. Mr Thompson explained that if the loosening of rocker gear tappet nuts had occurred on 11 January 2011, he would expect to see or hear reports of abnormal noise and engine operating conditions during the sea trial on 13 January 2011, and nothing similar was observed by those on board. I find Mr Thompson's explanation to be reasonable.

43 Given the matters set out in [28]–[42] above, I find no reliable evidence that the engine was put to a speed that was continuously beyond the engine's design limit of 525 rpm before the emergency stop at 1245 hours on 11 January 2011, and I so hold.

44 For completeness, I will now comment on some of the competing views of the experts on the nature and extent of damage to the crankshaft that is arguably attributable to or associated with an engine overspeed.

45 I note Mr Thompson's opinion that the vessel would not have been able to operate in service for some 1,100 hours if an engine overspeed had occurred on 11 January 2011. Mr Thompson's view is that an engine overspeed as claimed would have brought about "immediate" and "disastrous" (and not "progressive") consequences. [\[note: 34\]](#) The crankpin bearings would be the first to fail if there was an engine overspeed. He said: [\[note: 35\]](#)

A: ... I have mentioned previously that from my experience, all those overspeeding incidents that I have encountered, the crank pin bearings are the ones that fail. And like I explained, it's because of the high centrifugal force. Because it's an arm that is like drawing – or you can swing it, there is this centrifugal force which is excessive. And also because of the cyclic force, it goes from extreme high to extreme low.

When you have that sort of situations, the oil film is not stable, so that is why you get the breakdown in the oil film and, with the centrifugal force caused the crankpin failure.

46 Mr Thompson also highlighted that the connecting rods and crankpin bearings of the engine did not appear to have suffered any significant damage after the 11 March 2011 breakdown. Both of them would be subject to the "biggest stress" in the event of an increased downward force when the main engine's rpm increases and hence would be most likely to fail first in an overspeeding situation. [\[note: 36\]](#) Mr Wee disagrees generally, arguing that it would only be in a "worst case scenario" where the overspeed "bang the crankshaft and it stop, seize" [\[note: 37\]](#) that the crankpin bearings would be the first to suffer damage or suffer more significant damage. Mr Wee posits that, ordinarily, the undue stresses due to the overspeed incident would affect the alignment. Ultimately, Mr Wee came round to accepting that the overspeed incident was not serious since the crankpin bearings and connection

rods were not significantly damaged.

47 As reasonably pointed out by Mr Thompson, if overspeeding had indeed occurred to the extent that it resulted in a bent crankshaft (with a maximum run of 0.11mm, as analysed and reported in the Braemar Report), the damage would have been immediate and disastrous (on or around 11 January 2011), unlike in the present case where problems only arose more than two months later. When a bent shaft is rotated, its forces on supports increase exponentially as opposed to a straight shaft, hence the damage can be expected to be immediate and disastrous. Mr Wee does not address the points made in relation to a bent shaft.

48 Next, the fact that the vessel was not sailing at full speed, but at four knots, was also not conclusive of an overspeed incident. As Mr Thompson stated at trial, it only indicated that there was a problem with the engine, and at that stage, the e-mails from the crew on 11 January 2011 raised various other problems such as the blank out, fuel injectors and the knocking of the fuel pump. Thus, sailing at a slow speed in and of itself does not go far in establishing that an overspeeding condition was experienced.

49 As to the disagreement between Mr Wee and Mr Thompson on whether the damage could be progressive over time or had to be immediate and disastrous, there is force in Mr Thompson's contention that "you can't have a damage on the bearing or a crankshaft [from an overspeeding incident] that could become worse progressively for 1,100 hours, and then suddenly break down". [\[note: 38\]](#)

50 I do however recognise the plaintiffs' complaint that Wartsila had not until very late (only in these proceedings and not before when the parties were giving inputs on the Braemar Report) clearly denied the overspeed incident on 11 January 2011. However, this point does not bring the plaintiffs' case far. It is for the plaintiffs to establish the *fact* of an overspeed incident. Far from establishing this fact, Mr Wee's evidence at trial reveals how tentative and speculative the plaintiffs' position is. He speaks of a "*possibility* of overspeed" [\[note: 39\]](#) or that "*it could* be an overspeed incident" [emphasis added]. [\[note: 40\]](#) The documentary and contemporaneous evidence indicate that there was an incident reported requiring Wartsila's attendance on 13 January 2011, but the nature and extent of the engine problem then was not certain. I am not satisfied on the balance of probabilities that an overspeeding incident, as alleged by the plaintiffs, had occurred on 11 January 2011.

Crankshaft misalignment

51 The plaintiffs submit that the alignment of the crankshaft was suspect *prior* to the engine start up ("the crankshaft alignment argument") and that Wartsila had failed to reassess and take the necessary corrective actions to reduce the stresses to the main bearings. The plaintiffs do not dispute that they have to prove that the crankshaft was not properly aligned prior to the engine start up. It is the plaintiffs' contention that they have discharged the burden of proof having relied primarily on Mr Wee's interpretation of the 16 December laser alignment data and the 28 December crankshaft deflection data as evidence of the fact that some of the main bearings were subject to more stresses as compared to the other bearings. Specifically, in closing submissions, the plaintiffs maintain that the following matters have been proved: [\[note: 41\]](#)

- a. The results of the laser alignment of the bearing pocket taken by [Wartsila] on 16 December 2010 showed that stresses might be induced on main bearings #4, #8 and #9. However, [Wartsila] failed to take any necessary corrective actions.

b. The crankshaft deflection results taken by [Wartsila] on 28 December 2010 after the completion of the engine assembly, prior to sea trials being conducted, showed that the alignment of main bearing #9 was in question and ought to have been corrected. However, [Wartsila] failed to take any necessary corrective actions.

52 Another complaint is that Wartsila did not carry out crankshaft deflections after the sea trials and hence did not take corrective actions.

53 Given the plaintiffs' arguments, it is convenient, at this juncture, to recount some of the background facts touching on the repairs and sea trials before examining the plaintiffs' submissions. It is common ground that laser alignment readings of the main bearing pockets were taken by Wartsila in the course of the repairs. Amongst other readings, a laser reading was taken on 14 December 2010 with the main engine's foundation bolts in loosened condition and on 16 December 2010 with the main engine's foundation bolts in tightened condition ("the 16 December laser alignment data"). Apart from the laser alignment readings of bearing pockets, crankshaft deflection measurements were also taken to detect crankshaft misalignment. Wartsila carried out one such crankshaft deflection measurement on 28 December 2010 after completing the main engine assembly and refitting work ("the 28 December crankshaft deflection data"). These data can be compared with the tolerance upper and lower limits provided in the engine maker's Operating Manual.

54 The first sea trial in relation to the 2010 repairs was conducted on 30 and 31 December 2010. Wartsila attended on board the vessel on 7 January 2011 but the vessel was not put to sea for a sea trial on 7 January 2011. There was a subsequent sea trial on 13 January 2011 as evidenced by service reports and Wartsila's sea trial report dated 14 January 2011.

55 On 7 January 2011, Wartsila's SCK attended the vessel in Singapore at 0300 hours to test the running condition of the main engine. The main engine was first tested without load on marine diesel oil. Wartsila assisted the vessel's crew to check the fuel pump timing and fine-tuned the fuel pump. At 0700 to 0800 hours, the engine was tested at slow speed and found satisfactory. SCK then disembarked from the vessel. The vessel departed Singapore for Pasir Gudang at 1500 hours. During the voyage, Raman contacted SCK to report a problem with the governor. SCK and one Mr Martin (a governor specialist) attended on board the vessel in Pasir Gudang at 1900 hours. At Pasir Gudang, Wartsila found that most of the fuel pump racks were not at zero position, and assisted the crew to adjust the fuel pump racks, test the engine "more than 4 times" and confirm that it was able to stop satisfactorily. Wartsila also reported that the emergency stop button in the vessel's engine control room was not functioning. The vessel returned to Singapore after midnight.

56 On 13 January 2011, the main engine was running first on light marine diesel oil for seven hours and then on heavy fuel oil for 1.7 hours from standby-engine to finished-with-engine notification. At the sea trial on 13 January 2011, the engine was first tested to 450 rpm, and No 1 fuel pump was fine-tuned and found satisfactory. The sea trial was then held at full speed, with an overspeed trip set at 560–565 rpm. The overspeed trip device was tested to be satisfactory. Operating and performance data of the main engine at full speed was recorded. Crankcase temperatures were also checked during the sea trial using a laser gun and these were found satisfactory. No crankshaft deflection data was taken after the sea trial.

57 After the sea trials, Wartsila issued a "Main Engine Breakdown / Overspeed Investigation Report" dated 14 January 2011. In this report, Wartsila reported that the engine had been tested and was found satisfactory. Next, on 21 January 2011, Wartsila issued a Work Report describing and detailing the work done by Wartsila for the 2010 repairs.

58 I return to the plaintiffs' submissions set out in [51] above. The 16 December laser alignment data was a laser measurement of the main bearing pockets to ascertain the bearing pocket elevation. It is not disputed that the laser alignment data was obtained before the crankshaft was placed on the main bearings. After the crankshaft was placed on the main bearings, a deflection measurement to consider the alignment of the crankshaft was taken on 28 December 2010 using a different measurement tool. It is not disputed that once the crankshaft is installed, it is not possible to take a laser alignment measurement to verify the height of the main bearings.

59 Significantly, Mr Wee accepted in the witness box that the 16 December laser alignment data and the 28 December crankshaft deflection data were within the permitted limit in the Operation Manual. [\[note: 42\]](#) Mr Wee's main point is that even though the measurements were within the permitted limit, there was concern as the elevation of main bearings No 4 and No 8 was high and would be subject to higher stress as compared to the rest of the main bearings. [\[note: 43\]](#) To prove this concern, Mr Wee plotted two graphs using the measurements taken on 16 December 2010 and 28 December 2010.

60 According to Mr Thompson, the 28 December crankshaft deflection was minus 0.06mm which was well within tolerance as it was below 50 percent of the crankshaft deflection upper limit of minus 0.15mm based on the Operating Manual. [\[note: 44\]](#) Mr Wee plotted an alignment curve to analyse the 16 December laser alignment data and a deflection curve to analyse the 28 December crankshaft deflection data. Mr Wee argued that his graph of the crankshaft deflection curve showed that the deflection was minus 0.105mm and not minus 0.06mm, [\[note: 45\]](#) and it was a concern that the deflection of minus 0.105mm was close to the maximum upper limit of minus 0.15mm. [\[note: 46\]](#) Mr Wee's point is that Mr Thompson's minus 0.06mm was the raw crankshaft deflection data taken on 28 December 2010 whereas he had analysed the raw crankshaft deflection data by plotting a graph to show the crankshaft deflection curve to ascertain whether or not the deflection was within the maker's permitted limit and if so, its range benchmarked against the permitted limit. Mr Thompson opined that a comparison of the raw data taken on 28 December 2010 with the permitted limit in the manual was all that was required. [\[note: 47\]](#) He disagrees with Mr Wee's method which he opined was nothing more than an estimation. [\[note: 48\]](#) There was nothing to Mr Wee's concern which was misplaced.

61 The first disagreement between the experts was whether the respective curves needed to be plotted at all or whether it was sufficient to compare the data with the limits in the Operating Manual. Mr Wee gave evidence that graphical depiction was basic, standard textbook practice that is industry-recognised. Mr Thompson disputes this, pointing to the fact that the Operating Manual does not specify the need to plot such curves. Mr Thompson also points to the fact that exhibit "P6", an article by the International Institute of Marine Surveying which the plaintiffs rely on simply makes the point that a curve as a "graphical representation of data is more appealing and easily understood than a list of numbers". The second disagreement here lies with how Mr Wee adjusted the raw data collected to supposedly account for the hog and sag effect on the vessel, before the profile of the main bearing positions or bearing pocket positions could be compared relative to the ship's hull.

62 In the witness box, Mr Thompson introduced his graphical depiction of the crankshaft deflection curve (marked as "D2") which he used to compare with Mr Wee's graph: [\[note: 49\]](#)

A: Just for your information, your Honour, the crankshaft deflection was taken and compared with the maker's manual and found to be in good range.

To plot the graph for page 38 it is a method used by Mr Wee to plot the graph to show the profile of the bearing. You use the crankshaft deflection as a reference, because crankshaft deflection is proportional to bearing height, so you see that graphical method of doing it. But you use intermediate crankshaft deflection figures to plot section by section. In other words, you just use the crankshaft deflection data to get... it's a proportional means of plotting. It's not a direct figure like what we did on D2. It's just proportional.

So this figure gives you a profile of the bearing elevation, but it does not give you the data, what is the height and things like that, like they show on D2. D2 gives you the precise height of the bearing, whereas the graph on page 38 just gives you a profile without the actual value of the height, the elevation.

When I compared the figure D2 and p38, they [ie the profiles] look similar. One is actual values and the other one is based on the crankshaft deflection proportion values, proportional value, so they look quite similar.

63 Mr Thompson continues: [\[note: 50\]](#)

Q: Mr Thompson, just to clarify, you said that D2 and page 38, the graphs are very similar.

A: They are similar.

Q: Does it mean that you [agree] that, if you look at page 38, the stresses as shown in the deflection curve would be in numbers 4, 5, and 8?

A: No, it's a very marginal... all bearings are not perfect, so the figures, if you look from 0, from number 1 to number 9, the values are... if you could refer to D2, your Honour, from number 1 to number 9, the values are fairly close to perfect. In other words, you can't get perfect in an engine condition. You try to get as close as possible, that's why engine makers, they have tolerance.

Q: So what you're saying is it's within acceptable limits.

A: Correct, your Honour.

Q: Although it's not straight or it's not perfect, but the variations that you see at page 38 and D2, they are within acceptable limits?

A: Correct, your Honour.

64 As regards Mr Wee's alignment curve at page 37 of his expert report, Mr Thompson's comments are as follows: [\[note: 51\]](#)

A: Graph 37, your Honour, was plotted in a similar manner with graph 38. When it is plotted in a similar manner, that's according to Mr Wee, of course, the graph will be a different profile, which in my opinion is not correct, you should see the true value to plot to get the correct profile, your Honour.

Q: Are you saying that the raw data is not the true value?

A: No, the raw data is the true value, your Honour.

Q: So Mr Wee used those raw data, am I right?

A: Correct.

Q: How is it they are not true values?

A: Mr Wee used the corresponding data to obtain value. I will give you an example, your Honour. It's a very simple example here. If we look at graph page 37, if we look at the value 5 of the highlighted, it shows minus 0.03. If we look at the next column, it show 0.00. But in the curve on the graph, your Honour, it shows that both number 5 and 6 have the same level. So to me, it doesn't make sense.

Q: Inaccurate, in other words?

A: It's not inaccurate. The concept is wrong, it's how it's plotted...

65 Mr Wee explained how he came up with the way he plotted the graph at page 37 of his expert report. He took into account hogging and sagging of the ship: [\[note: 52\]](#)

A: ... The laser alignment is also taking the profile of the main bearing or the bearing pocket positions. So for a ship, it lies flat as it is on the land, it's subjected to hogging and sagging due to the load, ballast or whatever. So the hull form is not straight, it has hog and sag. So the bearings position will hog and sag as well.

...

... So the laser alignment that we do we have to analyse it with respect to the hogging and sagging, and not straight flatness, because the vessel is subject to hogging and sagging.

66 Mr Thompson's simple response is that no adjustment (for whatever reason) was required because if there was an alignment problem, it would have exceeded the maker's limit: [\[note: 53\]](#)

Q: In other words, as long as the raw data shows that the figures are within the limits in the manual, you don't have to do a deflection curve.

A: Correct....

...In the manual it specifically says that as long as it is within that minus 0.15, no adjustment is required. It specifically states, by the makers, and they are the ones who actually dictate what has to be done. They are the makers.

67 I make two points at this juncture. First, Mr Wee made clear in the witness box that he did not say that the crankshaft's alignment was not within the maker's permitted limit. This acknowledgment is significant for it militates against the plaintiffs' basic contention and submissions that the crankshaft was not aligned properly *prior* to the engine start up. A crankshaft deflection of minus 0.105mm was still within the maker's permitted limit regardless of the fact that minus 0.105mm is closer to the maximum upper limit of minus 0.15mm. Second, and this follows from the first point, the question of causation and the burden of proof on the issue of causation is on the plaintiffs who must establish that the crankshaft alignment was out of tolerance on 19 March 2011. That no crankshaft deflection measurements were carried out after the sea trials on 31 December 2010 and on 13 January 2011 went to the issue of breach of contract, if any, and not to the issue of causation which

still has to be established. Assuming, for the sake of argument, that there was a breach, it is for the plaintiffs to establish the causal link between the breach and the engine breakdown on 19 March 2011. That the condition of the crankshaft alignment was not documented after 28 December 2010 may be a consequence of a breach, but it is not proof of causation. Sections 103 to 106 of the Evidence Act (Cap 97, 1997 Rev Ed) are apposite.

68 Furthermore, the plaintiffs' damage analysis did not clearly point to alignment issues as a cause. Their damage analysis hinges on inferring that there were pre-existing alignment issues, overloading, and ultimately a breakdown of hydrodynamic lubrication. Main bearings No 4 and No 8 were the most heavily damaged. If engine failure was due to misalignment, the bearing with the highest load (No 9 main bearing) would have failed, and not No 4 and No 8 main bearings which were separately located. I pause here to refer to Mr Wee's off-the-cuff remark that No 4 and No 8 main bearings were not completely unrelated in that the main engine was an eight-cylinder unit and that the crank throw of the unit was 90 degrees such that No 4 and No 8 would fall in the same cylinder. This remark is new; it was not in his written testimony nor was this point raised in any of the technical reports disclosed in this action. Mr Thompson was not ready to deal with this new point. Be that as it may, Mr Thompson points out that the offsets of bearings No 4 and No 8 were marginal (0.03mm and 0.02mm respectively) and similar to the main bearings that did not fail, and that No 9 bearing did not fail although it had a higher offset of 0.06mm. [\[note: 54\]](#) It is not surprising that Mr Thompson pressed Mr Wee for the basis of his view that overloading of No 4 and No 8 main bearings caused them to fail and his theory of breakdown of hydrodynamic lubrication: [\[note: 55\]](#)

Mr Thompson: So your Honour, Mr Wee has mentioned something like five contributing factors for the failure of number 4 and number 8 main bearings. That's correct?

Mr Wee: No. I would say the main failure of the crankshaft, in my opinion, is the breakdown of lubrication. And the overloading.

....

Mr Thompson: I know, but from what?

Mr Wee: From the various factors, overloading, the alignment is not sure...

...

Mr Wee: There are various factors involving, so it's a breakdown of lubrication, but this breakdown of lubrication, that means they might have already some alignment issue where no one checked, after the sea trial. There might be some overloading of the engine whereby the engine as you can see from the data, there is some uneven loading. There might be a cause of concern by these overspeed incident whereby the engine is subjected to a lot of stress. So it ultimately lead to the alignment of crankshaft, I would suspect, being compromised somehow, but no one take note of that really go and check it and progressively it starts to fail.

69 Mr Wee's earlier reply echoes the problem of proving causation in the plaintiffs' case: [\[note: 56\]](#)

...a lot of various factors that affect the alignment and also a lot of various factor that affect the lubrications, so there is no data to show the lubrication is okay, no data to show the bearing

temperature is okay, no data to show the alignment is okay. How can I say the engine is totally okay?

70 Mr Wee's evidence and admission that he "can't say whether.. the alignment is already not compromised or not. It *could* have been compromised already" [\[note: 57\]](#) [emphasis added] is speculative. His earlier testimony is that the crankshaft alignment was within the tolerance set in the Operating Manual and it is for the plaintiffs to prove that the crankshaft alignment had fallen outside of the permitted tolerance because of Wartsila's failure to exercise reasonable skill and care in and about the 2010 repairs.

71 Ultimately, the 16 December laser alignment data and the 28 December crankshaft deflection data were within the engine maker's range of tolerance limits. I accept Wartsila's contentions regarding the plaintiffs' reliance on P6, which discusses a recommended method for plotting deflection curves and is a piece of literature that is specific for large engines where shimming to adjust bearing height is possible, unlike in the present case where shimming cannot be conducted as the vessel's engine has a fixed bed plate. As for hogging and sagging effects, I accept as plausible Mr Thompson's evidence that the effect of any hog and sag would have been taken into account by the makers when deriving the tolerance limits set in the Operating Manual.

72 To conclude on this section, I do not find on the state of the evidence that the pattern of the damage points to crankshaft misalignment as the cause of the crankshaft failure. I also do not accept the plaintiffs' submissions set out in [51] above for the reasons stated.

Lubrication oil starvation

73 The Braemar Report ruled out lubrication oil starvation as a possible contributing cause of the crankshaft failure, instead preferring lubrication oil contamination as a contributing factor. In the witness box, Mr Wee made it clear that he considered the main cause of the crankshaft failure to be due to the breakdown of lubrication (see [68] above). Mr Thompson noted that the engine's performance was satisfactory before it stalled on 18 March 2011. I find this statement somewhat curious when LWP's SAEIC talked about the engine problems that were reported to him after the 2010 repairs. In particular, at para 24(e), LWP alluded to an unusually high lubrication oil consumption that was observed in the month of March. Details of this increase were recorded in the Braemar's Report as follows: [\[note: 58\]](#)

7. Approximately 3 days before the main engine first showed signs of problem, there was a noticeable increase in lubricating oil consumption of around 150 litres per day compared to the normal consumption of 30 litres per day. The abnormal increase indicated loss of oil due to either leakage, incorrect or poor operation condition.

74 The first sign of problem alluded to by the Braemar Report was the engine shut down on 18 March 2011. Factually, there was an abnormal increase in the consumption of lubrication oil – lubrication oil consumption was *five* times that of daily levels over the three days immediately preceding 18 March 2011. There was also no indication that the Chief Engineer had looked into the cause of this abnormality which as a matter of common sense was a clear sign that something was amiss. It was posited that had the crew investigated or detected the cause of the main engine stoppage on 18 March 2011, the damage could have been detected earlier and minimal repair would have been required. [\[note: 59\]](#) This reasoning ought logically to apply here as well. The experts have neither commented on the abnormal increase in the consumption of lubrication oil over three days before the engine shut down on 18 March nor commented on the consequence and significance of

this abnormality, if any. What the facts do, however, suggest is that something was wrong for three days and hence ought to have been a cause of concern to those on board the vessel and the need to troubleshoot at the material time. The Second Engineer, Bambang, did not testify on the increase in the daily consumption of lubrication oil. On any view – whether the increase in consumption was due to the condition of the pistons, lubrication oil leakage, maintenance or operational reasons – the crew’s reaction to and handling of this abnormal consumption of lubrication oil, if any, must be explained away without which it would be unwise to accept from an evidential perspective either Mr Wee’s theory of lubrication oil starvation based on his “building blocks” or Mr Thompson’s theory that the broken material from the LSBF caused the main engine to become partially seized on 18 March 2011.

Lubrication oil contamination from the LSBF

75 This leads me to Mr Thompson’s theory that broken filter elements from the LSBF (which is the final stage filter screen that the lubrication oil passes through before entering the main engine) would have directly gained entry with the lubrication oil (there being no more filter between a defective LSBF and the engine) into the engine’s main bearings and hence caused damage to the engine bearings and crankshaft. The Braemar Report noted that the “*possibility* of the missing materials [from the LSBF] finding its way between the main journal and bearing metal and causing the damage could not be dismissed” [emphasis added]. [\[note: 60\]](#) Mr Thompson’s theory of partial engine seizure on 18 March 2011 is the start of the argument pertaining to lubrication oil contamination as a result of broken filter elements from the LSBF.

76 In their closing submissions, the plaintiffs adopted the lubrication oil contamination argument which was cited in the Braemar Report as one of the contributing cause of the engine breakdown. Notably, the plaintiffs’ latest position in closing submissions must be their fall-back position for Mr Wee’s theory throughout was that lubrication oil starvation was the main cause of the engine breakdown on 19 March 2011, and lubrication oil starvation is in direct opposition to the theory of lubrication oil contamination from the broken filter wire mesh. Earlier, the plaintiffs had refuted Mr Thompson’s theory of partial seizure and argued that if as Mr Thompson theorised, filter wire mesh from the LSBF went into the engine, any metal-to-metal contact would give rise to an immediate seizure and it would not be possible to restart the engine or sail away.

77 I should mention that Mr Wee did address the broken filter wire mesh from the LSBF as a potential cause in his Supplementary Affidavit of Evidence-in-Chief (“SAEIC”) dated 23 June 2016 and did in fact note that debris from the LSBF could, after entering the system, impede the supply of lubricating oil to bearing components and eventually result in progressive failure of the running components. Mr Wee discussed lubrication oil contamination by reason of broken filter elements from the LSBF as a possible cause of the eventual damage to the vessel on 19 March 2011 and not 18 March 2011. Be that as it may, Mr Wee’s conclusion in his SAEIC did not list lubrication oil contamination due to the broken elements of the LSBF as an alleged cause.

78 The plaintiffs pleaded in their Statement of Claim (Amendment No 4) that Wartsila failed to remove the LSBF after completion of the flushing of the lubricating oil system during the commissioning stage in the particulars relating to Wartsila’s failure to carry out the 2010 repairs with reasonable care and skill. In their closing submissions, the plaintiffs submit that Wartsila ought to have removed and/or caused to be removed the LSBF, as lubrication oil contamination as a result of broken filter elements from the LSBF was a possible cause of the eventual damage to the vessel on 19 March 2011. Owing to the failure of Wartsila to do so after the completion of the flushing of the lubrication oil system during the commissioning stage, the LSBF was left in the engine and the broken elements from the LSBF eventually caused the damage on 19 March 2011. The theory is that the torn

elements from the LSBF could have caused damage to the bearing surface and clogging of the oil passage to the affected bearings, thereby reducing hydrodynamic lubrication effectiveness.

79 According to the Operating Manual, the LSBF is meant for the first run of the engine and should be removed after two hours operation of the first run, without a need to re-fit it thereafter. It was found and reported in the Braemar Report that the lubrication system's LSBF was variously torn with mesh material missing. The LSBF is located at the end of the elbow or right-angle joint of a yellow pipe in the main engine room, left of the first flange, within the piping of the lubrication oil system just before entry to the main engine.

80 The plaintiffs in their closing submissions asked the court to give due weight to the Braemar Report on lubrication oil contamination: [\[note: 61\]](#)

According to the Braemar Report, one of the possible causes of the damage on or about 19 March 2011 was "lubricating oil starvation or contamination". In Braemar's view, the lubricating oil contamination could lead to hydrodynamic lubrication becoming less effective. This is in line with Mr Wee's theory that torn elements from the LSBF could have caused damage to the bearing surface and clogging of the oil passage to the affected bearings, thereby reducing hydrodynamic lubrication effectiveness.

81 The plaintiffs' reliance on the Braemar Report on this point is confusing: it indicated the mere "possibility" of the LSBF causing the damage on 19 March 2011 and the Braemar Report's conclusion regarding the LSBF was tentative and not more conclusive.

82 Mr Wee's theory that "torn elements from the LSBF could have caused damage to the bearing surface and clogging of the oil passage to the affected bearings", and thereby *only* "reducing hydrodynamic lubrication effectiveness" does not seem tenable given Mr Wee's opinion that a seizure caused by the broken filter elements entering the engine would have been instantaneous; the vessel would not have experienced what Mr Thompson described as a partial seizure and that it was not possible for the vessel to sail to Port Klang before the breakdown on 19 March 2011. To resolve this, Mr Wee opined that the contamination was on 19 March 2011 with no explanation for the engine shut down on 18 March 2011. To recap, Mr Thompson's theory is that the broken filter elements entered the engine on 18 March 2011, and that caused the partial seizure.

83 As part of the plaintiffs' case regarding the LSBF, the plaintiffs also submitted that: (a) Wartsila was responsible for the flushing operations of the vessel at the material time as it was contracted to do so under the 2010 Quotation; (b) as a responsible repairer, Wartsila ought to be familiar with the Operating Manual and with the lubricating system, including the purpose and usage of the LSBF; and (c) Wartsila ought to be aware and hence ensure that removed from the engine system after the completion of the flushing of the lubricating oil system during the commissioning stage. These issues are however *separate* from the question of causation.

84 Returning to the factual cause relating to the LSBF, there is a factual dispute over whether the crew had opened up the engine and cleaned the filters, including the LSBF, in the lubrication oil system after the 19 March 2011 incident and before Wartsila arrived on 23 March 2011 to inspect the vessel. This factual dispute has an impact on the availability of evidence to corroborate the theory of lubrication oil contamination. To the extent that this factual dispute has an impact on whether the crew were "responsible" for the filters as a matter of practice, this issue is irrelevant to the question of causation.

85 Accepting for a moment SCK's evidence that he had seen the Chief Engineer open the LSBF

during or after the flushing of the lubricating oil system and later reinstalling it (a fact which the plaintiffs accept and rely on in their closing submissions), *both* the crew and Wartsila had notice of the LSBF and were aware of the presence of the LSBF at that point. LWP's argument during cross-examination that none of the crew knew of the existence of the LSBF and assumed that it should not be there in the first place (and hence reading the Operating Manual about its removal did not necessitate the crew to check the presence of the LSBF) can equally apply to Wartsila's personnel. LWP's point is that to "all of us, it doesn't exist. Why do we want to check something which doesn't exist? None of the engineers knew about these filters." [\[note: 62\]](#) Arguing that the crew would not have even bothered about the LSBF as they would just assume it was not there is untenable. Both Wartsila *and* the crew ought to have known about the LSBF and the relevant comments on it in the Operating Manual. Besides, the Operating Manual states the lubrication oil pump should be dismantled for every 5000 operating hours for maintenance and details the procedure for the disassembly, cleaning and assembly of the lubrication oil pump components. It also recommends that the lubricating oil filters be cleaned every 100 hours.

Probable cause not established

86 For the reasons set out at some length above (assuming but without deciding specifically on breach of contract or duty of care), the plaintiffs' claim in Suit 521 lacks proof of causation which has not been established and hence fails. The Court of Appeal's remarks in *Clarke Beryl Claire v SilkAir (Singapore) Pte Ltd* [2002] 1 SLR(R) 1136 at [58] are apposite in the present case:

At various junctures, the appellants seemed to have forgotten that their task was to prove their own case on a balance of probabilities, not to show that their explanations were more probable than the respondent's.

87 The causation inquiry here is not whether the plaintiffs' theory was more probable than Mr Thompson's, but whether their theory *was more likely than not on the balance of probabilities*. Where the cause of a past event is in issue and two or more competing causes are advanced, the burden of proving his case on causation remains on the claimant throughout, and though the defendant can advance a competing cause, there is no obligation on the defendant to prove his case (see *Rhesa Shipping Company SA v Edmunds (The Popi M)* [1985] 1 WLR 948 ("*Popi M*") at 951C).

88 In the present case, the plaintiffs and their expert witness, Mr Wee, repeatedly point out that the factual causes are "possible", but as Lai Siu Chiu J (as she then was) aptly pointed out in *Surender Singh s/o Jagdish Singh and another (administrators of the estate of Narindar Kaur d/o Sarwan Singh, deceased) v Li Man Kay and others* [2010] 1 SLR 428 (at [121]), the court "deliberates on probabilities and not possibilities". What Lai J had in mind is this: sufficient evidence must be adduced to enable the court to engage in an informed analysis of the possible causes of the loss and to reach a reasoned conclusion as to the probable cause(s) on the balance of probabilities.

89 Eliminating possibilities one by one from the crankshaft's alignment to the overspeed incident on 11 January 2011 does not mean that the remaining factual causes such as the theory of lubrication oil contamination from broken elements of the LSBF, however improbable, ends up being the probable cause of the 19 March 2011 breakdown. This line of reasoning is premised on a process of elimination that would fall foul of the ruling by Lord Brandon in *Popi M* when the enquiry to be addressed is whether a particular cause or set of causes is more probable than not, all things considered.

90 Until questioned by the court, Mr Wee's theory of lubrication oil starvation was linked to existing alignment problems, the purportedly unbalanced condition of the engine and the overspeed incident. This was his "progressive" theory. If so, a finding that one of the inter-linked factors was not present

would invalidate Mr Wee's progressive theory. After he was questioned by the court, Mr Wee said that just one factor would do – that is to say, one of the four building blocks or indicators that give rise to his theory of the lubrication oil starvation would suffice. His four building blocks were: (a) crankshaft misalignment causing stress, and (b) overloading of the affected bearings, and then (c) further stress from over speeding, and finally (d) some one-sided metal wiping. They need not all exist to establish his theory of lubrication oil starvation. Nonetheless, as discussed above, I am not convinced that the plaintiffs have met the standard of proof on the balance of probabilities for each of the factual causes individually. The inability to establish the cause of the engine breakdown equally presents the same challenges in proving breach of contract and/or duty to exercise reasonable skill and care in carrying out the 2010 repairs, and I so hold.

91 Having set out at some length in this judgment on proof of causation, the conclusion is that the plaintiffs' claim lacks proof of causation. The other issues in [5] above are not strictly essential given the conclusion reached in this judgment, but they were fully argued and I shall state, generally, my views upon them.

Aga-Intra's entitlement to sue in contract

92 There is no dispute that LWP handled the contractual negotiations on behalf of Geniki Shipping in the transactions that formed the subject matter of the present dispute. On 18 November 2010, Wartsila's Sales Engineer, e-mailed LWP with Wartsila's field service rates, attaching in the e-mail two Portable Document Format ("PDF") documents: the first being a one-page document, titled "Field Service Rates 2010", indicating Wartsila's hourly service charges, working hours, surcharges and other chargeable expenses and stating at the bottom of the page that "[Wartsila's] services are rendered according to the general terms and conditions of Wartsila"; [\[note: 63\]](#) and the second being a two-page document titled "Wartsila General Terms and Conditions Service Work (2008)". [\[note: 64\]](#) In the series of e-mails that followed, LWP asked about Wartsila's wharf availability on 21 November 2010. After Wartsila replied, LWP proceeded to provide Wartsila with the vessel's specifications, and attached an "initial job scope for the vessel's crankshaft renewal" ("the Main Engine Job Scope"), asking Wartsila to furnish a quotation "ASAP" on 22 November 2010. [\[note: 65\]](#) The Main Engine Job Scope contained several detailed sub-items categorised under the main work items.

93 After Wartsila sent an initial quotation on 23 November 2010, there was another series of e-mails between the parties concerning a few corrections to the quotation and a discussion on payment terms, culminating in the final agreed quotation sent on 26 November 2010 with reference number WMY10112201R2 (*ie*, the 2010 Quotation). The 2010 Quotation was addressed to Geniki Shipping and purportedly accepted by Geniki Shipping who was also identified in Wartsila's invoices as the customer.

94 Aga-Intra claims to be entitled to sue Wartsila in contract as an undisclosed principal. The contract here is the repair agreement concluded on or about the end of November 2010 for the 2010 repairs ("the Repair Contract"). As an undisclosed principal, Aga-Intra may step in and sue on the Repair Contract even though it is a non-party. In the context of a contract entered into for an undisclosed principal, the principle is that the agent may also sue and be sued on the same contract.

95 The doctrine of the undisclosed principal is well-accepted under Singapore law. In *Family Food Court (a firm) v Seah Boon Lock and another (trading as Boon Lock Duck and Noodle House)* [2008] 4 SLR(R) 272 ("*Family Food Court*") at [29], the Court of Appeal set out the following:

The doctrine of the undisclosed principal

29 The doctrine of the undisclosed principal is described by M P Furmston in *Cheshire, Fifoot and Furmston's Law of Contract* (Oxford University Press, 15th Ed, 2007) ("*Cheshire, Fifoot and Furmston*"), as follows (at pp 575–576):

[I]f A has made a contract with B, C may intervene and take A's place if he can show that A was acting throughout as his agent, and it is irrelevant that B entered into the contract in ignorance of this fact.

This intervention by C, the undisclosed principal, has been heavily criticised as it offends against many contractual principles, including (most notably) the principle of privity of contract. Yet, the undisclosed principal has become a familiar (and, more importantly, an established) concept in the law of agency. **It is now well accepted as a general principle that the undisclosed principal can sue and be sued on a contract made by its agent, although it is not a party to the contract** This unique state of affairs with regard to the doctrine of the undisclosed principal is well summarised by F M B Reynolds, *Bowstead and Reynolds on Agency* (Sweet & Maxwell, 18th Ed, 2006) ("*Bowstead and Reynolds*") at para 8-071 as follows:

The proposition that such a principal, someone of whose existence or connection with the transaction the third party was totally unaware, can in appropriate circumstances sue and be sued on a contract made by his agent may be surprising, but is well established. ... Such a conclusion is certainly difficult to accommodate within standard theories of contract, which emphasise, even though under objective criteria, the consent of the parties. ... It is difficult to deny that the undisclosed principal is really a third party intervening on a contract which he did not make ...

If it [ie, the doctrine of the undisclosed principal] were treated as an exception to the rules [on] privity of contract, the doctrine would still be unusual, since the third party is not mentioned, nor indeed contemplated by one of the parties, and furthermore takes liabilities as well as rights. ... The doctrine is probably best explained simply as one of commercial convenience, and its justice is disputable.

Essentially, the doctrine comes into play "[w]here an agent, having authority to contract on behalf of another, makes the contract in his own name, concealing the fact that he is a mere representative" (see *Cheshire, Fifoot and Furmston* at p 621).

[emphasis in bold]

96 The plaintiffs submit that Geniki Shipping was Aga-Intra's agent with authority to contract on its behalf. Geniki Shipping was appointed as agent pursuant to an oral agreement concluded in or around 2003 between LYC on behalf of Aga-Intra and LWP on behalf of Geniki Shipping whereby Aga-Intra appointed Geniki Shipping as its shipping agent for the management of the affairs of the vessel in Singapore. Wartsila raises three difficulties. The first is a complaint that the plaintiffs had been flip-flopping on how that purported agency relationship was entered into. Initially, they had relied on a written agency agreement dated 31 January 2004 as evidence of written authorisation given by Aga-Intra to Geniki Shipping. They had then pivoted their position by claiming to solely rely on the 2003 oral agreement. Secondly, Wartsila points to a legal opinion from Geniki Shipping's previous solicitors advising that the Repair Contract was entered into by Geniki Shipping and that Aga-Intra had no basis to sue in contract – hence, they came up with the idea of a Deed of Assignment. Wartsila submits that this position adopted earlier is inconsistent with the agency relationship that is now alleged to be established in 2003. Thirdly, Wartsila points out that the oral agreement was in 2003 which was several years earlier and before the vessel was acquired.

97 The plaintiffs' account seems to be corroborated by LYC and LWP and the surrounding circumstances. At the time the 2003 oral agreement was entered into, the plaintiffs were related companies as they were both subsidiaries of a parent company known as Geniki Holdings Sdn Bhd. Further, the plaintiffs shared a common director, LYC. I agree with the plaintiffs that it would not be unusual for arrangements between related companies to be put in place without formal documentation. In addition, the first and third tranches of payment for the 2010 repairs were paid by Aga-Intra. In light of the aforesaid matters, I did not find Wartsila's arguments convincing. In my view, nothing should turn on the legal opinion given by Geniki Shipping's former solicitors or the fact that a Deed of Assignment (that was seemingly inconsistent) was executed. The legal opinion would explain the rationale behind the creation of the Deed of Assignment, but it should not prevent this court from upholding the existence of the oral agreement in 2003. Finally, LWP testified that the oral agreement in 2003 was intended to and did apply to vessels owned by Aga-Intra subsequently. This seems to be a plausible arrangement – I therefore accept that Geniki Shipping had entered into the Repair Contract on behalf of Aga-Intra as agent for an undisclosed principal. Accordingly, Aga-Intra has standing to sue under the Repair Contract.

98 As an aside, one further observation is made. The case was argued on the footing of an undisclosed principal and no distinction was made between an undisclosed principal and an unidentified principal. The difference lies in how the third party is unaware of the existence of the *undisclosed* principal but where the principal is merely *unidentified*, the third party deals with the agent with the knowledge that the agent is acting for a principal whose identity is not revealed. The distinction is relevant in the context of proving the creation of an undisclosed agency relationship. In *Magellan Spirit ApS v Vitol SA "Magellan Spirit"* [2016] EWHC 454 (Comm) ("*Magellan Spirit*"), Justice Leggatt was faced with the question of whether the creation of an undisclosed agency relationship could be formed based on the subjective state of the mind of the supposed agent at the time of contracting, instead of the objective words and conduct between principal and agent. In deciding that it was the objective analysis that applied, he treated cases involving unidentified rather than undisclosed principals as distinguishable (see *Magellan Spirit* at [18]-[20]).

99 In addition, the right categorisation of the agency relationship may have implications, particularly when the agent's authority is sought to be established via apparent authority (which is applicable to unidentified but not undisclosed principals) instead of actual authority (Andrew Phang Boon Leong, *The Law of Contract in Singapore* (Academy Publishing, 2012) ("*The Law of Contract in Singapore*") at para 15.043).

100 It is important to bear this distinction in mind as agency arrangements are not uncommon in the shipping industry. Typically, shipping agents contract with third party service providers who quite often try to look to the vessel's registered owner for payment when there is default.

101 I now turn to a related issue. For the sake of argument, if the doctrine of the undisclosed principal is not applicable in this case, the question that arises is whether Geniki Shipping who is not the registered owner of the vessel is allowed to claim substantial damages that are normally claimable by the registered owner. While the general rule is that a plaintiff is only entitled to recover compensatory damages on account of a breach of contract for actual loss suffered, the "broad ground" exception is premised on the protection of the promisee's performance or expectation interest instead. In this context, it seems open to Geniki Shipping to claim damages for the *defective performance of repair services pursuant to the Repair Contract*. It would be useful to set out the observations of the Court of Appeal in *Family Food Court* at [52], citing its previous decision in *Chia Kok Leong v Prosperland Pte Ltd* [2005] 2 SLR(R) 484:

52 Further, notwithstanding that the application of the broad ground to the facts of *Prosperland*

(CA) did not, strictly speaking, form part of the *ratio decidendi* of that case, **it is noteworthy that Chao JA reaffirmed the performance interest approach to contractual damages as the foundation of the broad ground**, as follows (*id* at [53]):

[T]he basis on which a plaintiff is entitled to claim for substantial damages under the broad ground is that he did not receive what he had bargained and paid for. It has nothing to do with the ownership of the thing or property. As to the value of this performance interest, it seems to us that the observation of Lord Scarman in *Woodar Investment Development Ltd v Wimpey Construction UK Ltd* [1980] 1WLR 277, that the fact that a contracting party has required services to be supplied at his own cost to a third party is at least *prima facie* evidence of the value of those services to the party who placed the order, is a useful pointer.

Hence, unlike the narrow ground, the broad ground is not concerned with filling up any legal black hole (see *Prosperland (CA)* at [55]):

[T]he main ground upon which the appellants sought to argue that *Prosperland* could not claim for substantial damages was that, as the MCST was entitled to sue the appellants in tort, there was no legal black hole. It was also pointed out that if *Prosperland* were to be allowed to claim for substantial damages, it would expose the appellants to double liability. *In our opinion, these arguments miss the fundamental premise upon which the broad ground is based. It has nothing to do with the "filling up" of a legal black hole.* We can do no better than quote the following passage of Steyn LJ (as he then was) in *Darlington ...* (1994) 69 BLR 1 at 24:

The rationale of Lord Griffiths' wider principle is essentially that **if a party engages a builder to perform specified work, and the builder fails to render the contractual service the employer suffers a loss. He suffers a loss of bargain or of expectation interest. And that loss can be recovered on the basis of what it would cost to put right the defects.**

[emphasis added]

The fact that the broad ground is grounded in protection of the plaintiff/promisee's performance interest would mean that it applies only in the context of a breach of contract, just like the narrow ground (see [47] above), the key difference being (as mentioned at [31] above) that, under the broad ground, the plaintiff/promisee is recovering substantial damages for its own loss, and not on behalf of the third party. Thus, in *Prosperland (HC)*, although *Prosperland's* action against the Defendants was founded in contract and/or negligence (*id* at [4]; see also [44] above), it is clear from a reading of both the judgment of Prakash J and the judgment of this court (in *Prosperland (CA)*) that the passages therein relating to the two exceptions dealt only with the breach of contract by the Defendants.

[emphasis in original in italics; emphasis added in bold]

102 It is implicitly acknowledged in [31] of *Family Food Court* that the agent can claim substantial damages for losses that it suffered. If the agent claims for damages suffered by the undisclosed principal under the broad ground approach, any damages recovered would have to be handed over to the undisclosed principal. This is understandable as the courts would not allow double recovery for the same loss (see *Family Food Court* at [61]). That said, I accept that the scope of the "broad ground" exception and its relationship with the "narrow ground" exception remains in a state of flux

(see generally *JES International Holdings Ltd v Yang Shushan* [2016] 3 SLR 193 at [200]). I therefore leave this point as such. It can be more definitively adjudicated upon on a separate occasion.

103 For completeness, I will now comment on the Deed of Assignment. All I need to say is that the matter of the Deed of Assignment has become moot in light of the agency point discussed above. Not only is Aga-Intra entitled to sue in its own right, Geniki Shipping as Aga-Intra's agent could sue on the contract and recover Aga-Intra's losses (see *Bowstead & Reynolds on Agency* (Sweet & Maxwell, 20th Ed, 2014), at para 08-069). Besides, as explained (at [99] – [102] above) Geniki Shipping could claim damages for the *defective performance of repair services pursuant to the Repair Contract*. In the circumstances, the Deed of Assignment would serve no real purpose. I do not propose to comment on Wartsila's arguments on the validity of the assignment.

Applicable standard terms and conditions

104 The next issue relates to the terms of the Repair Contract. The focus is on "Wartsila General Terms and Conditions Service Work (2008)". I will hereafter refer to this set of printed standard terms and conditions as "the 2008 GTC". The dispute is whether the 2008 GTC formed part of the Repair Contract. This threshold question will determine whether there are standard clauses in the Repair Contract that purports to exclude or limit the liability of Wartsila for all or part of the claim. Wartsila wishes to rely on cl 6.1 which provides, in capital letters, that the contractor's liability would exclude indirect, contingent, special, consequential, or incidental losses. There is also cl 6.2 which indicates that the contractor's aggregate liability under the contract shall not exceed 30% of the contract price. It will be helpful to set out cl 6 on contractor's liability: [\[note: 66\]](#)

6. CONTRACTOR'S LIABILITY

6.1 IN NO EVENT SHALL CONTRACTOR BE LIABLE FOR ANY INDIRECT, CONTINGENT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES, HOWEVER CAUSED OR ARISING (INCLUDING (WITHOUT LIMITATION) FOR ANY LOSS OF ACTUAL OR ANTICIPATED PROFITS OR REVENUE OR ANTICIPATED SAVINGS, PUNITIVE OR EXEMPLARY DAMAGES, THE COST OF SUBSTITUED EQUIPMENT OR ARISING FROM THE WARRANTY PROVIDED HEREIN, TOWAGE CHARGES, POLLUTION REMEDIATION COSTS, COSTS OF DOCKING, DIVING OR SUB-AREA WORK, DAMAGE TO ANY VESSEL, ENGINE ROOM OR POWER PLANT SITE, YARD OR OTHER PROPERTY (INCLUDING DAMAGE TO GOODS OWNED BY CUSTOMER), DAMAGE TO ANY EQUIPMENT OR PROPERTY OTHER THAN DAMAGE TO THE EQUIPMENT, COMPONENTS AND PARTS ON WHICH SERVICE WORK WAS PERFORMED HEREUNDER CAUSED BY SUCH PERFORMANCE OF SERVICE WORK, COSTS FOR ANY ADDITIONAL TESTS (INCLUDING WITHOUT LIMITAITON, SEA TRIALS), DEBRIS REMOVAL, OR FOR LOSS OF TIME OR USE OF ANY EQUIPMENT, INSTALLATION SYSTEM, OPERATION OR SERVICE). THIS LIMITATION ON CONTRACTOR'S LIABILITY SHALL APPLY TO ANY LIABILITY FOR THE BREACH OF THE CONTRACTOR'S OBLIGATIONS UNDER OR IN CONNECITON WITH THE SERVICE WORK PERFORMED HEREUNDER, WHETHER BASED ON WARRANTY, FAILURE OF OR DELAY IN DELIVERY OR OTHERWISE.

6.2 Notwithstanding any other provision of the Contract, Contractor's aggregate liability under the Contract shall not exceed thirty percent (30%) of the Contract price.

6.3 ...

105 Parties have characterised the issue of contractual terms as one of incorporation and the debate is on the requirement of reasonable notice. Briefly, there are three methods by which a party's standard terms and conditions could be incorporated and be contractually binding on the parties. The

first is where they are expressly agreed to, for example, by being signed. The second method is by way of reasonable notice. The third method is via a course of dealing. The third method does not apply in this case. The commercial relationship of the parties was recent and limited; it was not a commercial relationship that went far back enough to constitute a course of dealing. I will focus on the second method. Wartsila's position is that for cl 6 of the 2008 GTC to be incorporated, "the notice requirement" prescribed in case law has to be satisfied.

106 Wartsila relies upon two facts in support of the contention that the 2008 GTC formed part of the Repair Contract. First, a copy of the 2008 GTC was sent on 18 November 2010 by Wartsila's Sales Engineer to LWP. Secondly, the first invoice (bearing the reference number 4291211) issued under the Repair Contract had made reference to the 2008 GTC. That first invoice was issued on 25 November 2010, before the issuance of the 2010 Quotation which was dated 26 November 2010. At the bottom of each page of this first invoice, in fine print, is a statement that for the provision of services, "[i]f not otherwise stated, General Terms and Conditions – Service Work (2008) issued by Wartsila are valid." [\[note: 67\]](#) I pause to mention that there is also, in fine print, reference to another set of printed standard terms and conditions for sale of parts. In light of the two points, Wartsila's submission is that the 2008 GTC had been incorporated and formed part of the Repair Contract.

107 At trial and in their closing submissions, Wartsila maintains that it had intended to refer to the 2008 GTC in cl 2.8 of the 2010 Quotation. [\[note: 68\]](#) Wartsila's General Manager for Sales, Ang Chin Lam ("ACL"), explained that the staff would know what they were referring to as there was only one set of printed terms in use. During cross-examination, ACL agreed that outsiders would not know that there was only one set of printed terms in use. Hence, they would not know that the document referred to in cl 2.8 was the same as the 2008 GTC. His evidence remained the same on re-examination save for his belief that "[LWP] would [be] fully aware of this, what we are referring to, because during the initial inspection, way back in mid-November, a copy was extended to him..." [\[note: 69\]](#)

108 In contrast, the plaintiffs' case is that the 2008 GTC had never been incorporated into the Repair Contract. The plaintiffs argue that a copy of the 2008 GTC was sent to LWP in respect of an antecedent and separate contract for the inspection and determination of the condition of the vessel prior to the 2010 repairs. [\[note: 70\]](#) In any event, their point is that the title of the 2008 GTC is ostensibly different from the wording used in cl 2.8 of the 2010 Quotation, so the document referred to in cl 2.8 of the 2010 Quotation was not the same document as the 2008 GTC. Clause 2.8 of the 2010 Quotation reads as follows: [\[note: 71\]](#)

All other terms and conditions not stipulated shall be governed by our company's General Conditions of Sales & Services. A copy shall be made available upon request.

109 As I have already mentioned, before the 2010 Quotation was issued, Wartsila's Sales Engineer had e-mailed a copy of the 2008 GTC to LWP on 18 November 2010. The first invoice was dated 25 November 2010 but it is not clear when it was sent to Geniki Shipping. Be that as it may, the plaintiffs argue that the 2008 GTC were not validly incorporated into the Repair Contract as Wartsila had failed to fulfil their obligation to bring the exclusion and/or limitation clauses to their attention.

110 I make four points here. First, LWP had asked Wartsila to prepare a quotation for the replacement of the crankshaft on the 22 November 2010 and Wartsila e-mailed its quotation on 23 November 2010. The parties then discussed the contents of the quotation, and on 25 November 2010 at 10.49 am, LWP asked for a revised quotation which was sent at 2.01 pm. The payment term in cl 1.3 of the quotation was proposed in LWP's e-mail of 26 November 2010 at 9.09 am and the proposal

was agreed to in Wartsila's e-mail dated 26 November 2010 at 11.21 am. The short point to this narrative is that cl 2.8 of "2.0 Conditions" under the heading "Terms and Conditions" was probably contained in the first version of the quotation that was e-mailed to LWP on 23 November 2010 at 2.26pm.

111 Second, the printed words in the first invoice dated 25 November 2010 provide as follows: "Services: if not otherwise stated General Terms and Conditions – Service Work (2008) issued by Wartsila, are valid." There is some force in the plaintiffs' argument that the applicability of the 2008 GTC had been "otherwise stated" in the 2010 Quotation by cl 2.8 which ostensibly referred to a document with a dissimilar title "General Conditions of Sales & Services". [\[note: 72\]](#)

112 Third, the plaintiffs' argument – that the 2008 GTC were forwarded to the plaintiffs in respect of an antecedent and separate contract for the inspection and determination of the condition of the vessel prior to the 2010 repairs – is, at first blush, not an argument which I would expect to occur to businessmen in the position of the parties. However, upon examination of the text of the 2008 GTC, the plaintiffs' objection as to the applicability of the 2008 GTC to the 2010 repairs is tenable given the meaning of "Service Work" in the 2008 GTC. I will elaborate on this later.

113 Ultimately, and this last point leads from the third, the correct question is whether a reasonable person in the position of the plaintiffs would understand the words used in cl 2.8 as referring to the 2008 GTC. In relation to this last point, the process of interpretation has logically to be carried out without reference to the principles of sufficiency of notice if the whole of 2008 GTC was sought to be incorporated by cl 2.8. If on an application of the rules of interpretation, cl 2.8 cannot even be construed to be a reference to the 2008 GTC, the question of sufficiency of notice does not arise.

Meaning of cl 2.8

114 The principles governing the interpretation of contractual terms are set out recently by the Court of Appeal in *Y.E.S. F&B Group Pte Ltd v Soup Restaurant Singapore Pte Ltd (formerly known as Soup Restaurant (Causeway Point) Pte Ltd* [2015] 5 SLR 1187 ("*Soup Restaurant*"). Although the context is important, the principles recognised that the text ought always to be the first port of call for the court (at [32]). However, if the text is ambiguous (*ie*, without even considering the relevant context), in such a situation, the relevant context will generally be of the first importance (at [34]). Recently, the Court of Appeal in *Yap So On v Ding Pei Zhen* [2016] SGCA 68 ("*Yap So On*") stated (at [31]):

...While the court is entitled to depart from the plain and ordinary meaning of the expression used, there is a limit to what the court can legitimately do in the name of interpretation.

115 With the principles governing contractual interpretations in mind, I now turn to the meaning of cl 2.8. This case is principally concerned with the third key principle governing contractual interpretation identified in *Yap So On* (at [30]), namely the importance of the text.

116 The background evidence provides a useful starting point. Wartsila's evidence is that the only set of printed standard terms and conditions in use was the 2008 GTC. However, there is no evidence to support ACL's belief that LWP was aware of this fact. The plaintiffs were a new customer of Wartsila. A copy of the 2008 GTC was sent to LWP on 18 November 2010 during the time enquiries were being made for Wartsila's engineers to inspect and determine the condition of the crankshaft. At that time, Wartsila was asked to send its engineers to the vessel in Malaysia. It is not unreasonable to view the inspection as an arrangement and a precursor to whatever repairs that were needed to

be done. Businessmen in the position of the parties would anticipate that a subsequent agreement for the repair work would be made specifying the individual items of work that were required to be done. Following on from the inspection and upon discovery that the crankshaft was beyond repair and had to be replaced, a quotation was sought and obtained by LWP. After discussions, this quotation was revised and eventually the 2010 Quotation was issued. Even against this backdrop, it cannot be assumed in this case that the parties' reasonable expectation was that the 2008 GTC would apply to the 2010 repairs. Contextually, at the time a copy of the 2008 GTC was given together with the Field Service Rates 2010, Wartsila was being asked to send its engineers to Malaysia where the vessel was, and Wartsila was quoting for "services to be performed in the field" – that was the reason for sending the Field Service Rates 2010 to LWP. The rates are self-explanatory and the wording at the bottom of the page states that [our] services are rendered according to the general terms and conditions of Wartsila". [\[note: 73\]](#) The vessel was subsequently towed to Wartsila's yard in Singapore where it docked at Wartsila's wharf for the duration of the repairs.

117 The query is whether as a matter of construction, a reasonable person in the position of Geniki Shipping would understand cl 2.8 of the 2010 Quotation to be drawing attention to the fact that Wartsila had standard conditions that would apply to the crankshaft replacement work at the yard and that a copy of the standard conditions would be available on request. Alternatively, as ACL puts it, Wartsila's intention in cl 2.8 was to refer to the 2008 GTC.

118 I return to the title of the 2008 GTC which is "Wartsila General Terms and Conditions Service Work (2008)". Notably, "Service Work" is defined in cl 1 of the 2008 GTC as "all service work performed in the field". Clause 1 reads: [\[note: 74\]](#)

1. INTRODUCTION

These General Terms and Conditions – Service Work (2008) (the "Conditions") shall, unless otherwise agreed in writing, apply to all service work performed in the field ("Service Work") by any authorised member, agent or representative of the Wartsila Group (the "Contractor") to a customer (the "Customer"). Contractor's offers are non-binding until accepted and confirmed by a purchase order issued by Customer in compliance with these Conditions which is acknowledged by Contractor (any such acknowledged by Contractor (any such acknowledged purchase order, a "Contract"). These conditions shall form an integral part of the Contract. Customer may not change or cancel any purchase order after it has been received by Contractor unless Contractor has agreed in writing to such change or cancellation.

119 As intended, the phrase "Service Work" is used in most of the clauses in the 2008 GTC, and the phrase "Service Work" has the meaning ascribed to it in cl 1. By sending to LWP a copy of the 2008 GTC, Wartsila was indicating that the 2008 GTC would be the terms and conditions upon which Wartsila was prepared to do business that require its personnel to perform services in the field. At that time on 18 November 2010, Wartsila was being engaged to perform services in the field. From this perspective, the words in cl 2.8 of the 2010 Quotation cannot reasonably bear, in my view, the interpretation that the 2008 GTC was intended to apply to work carried out in the yard. In particular, a fair number of clauses in the 2008 GTC, by the language used, were intended to apply to the Contractor's personnel performing services in the field.

120 Clause 2.8 of the 2010 Quotation states that the "terms and conditions not stipulated in [the Quotation] shall be governed by our company's *General Conditions of Sales & Services*" [emphasis added]. [\[note: 75\]](#) The clause bears the words "General Conditions of Sales & Services" and the use of capital letters for the alphabets G, C, S and S gives the phrase a descriptive manner and style which

is consistent with it being the title of a contractual document. Further, reference to "General Conditions" in cl 2.8 is to be contrasted with the use of the words "General Terms and Conditions" in the title to the 2008 GTC. This dissimilarity is not a mere coincidence seeing that cl 2.8 is a sub-clause of "2.0 Conditions" under the heading "Terms and Conditions" in the Quotation, and "1.0 Terms" has four sub-clauses of which cl 1.3 relates to "Payment". It seems to me that all these words and dissimilarities must bear some meaning.

121 As a matter of construction, the first sentence of cl 2.8 states that there are other applicable clauses besides the specific provisions, terms and conditions in the 2010 Quotation. The second sentence of cl 2.8 states that a copy of the "company's General Conditions of Sales & Services" shall be made available upon request. That a copy is available implies that the General Conditions of Sales & Services as described in the preceding sentence and so identified as "General Conditions" are in existence in the sense that somebody has formulated them. Therefore, once the quest begins for meaning, the process of interpretation has logically to be carried out without reference to the principles of sufficiency of notice. On the present material, I find that the more likely construction is that the words in cl 2.8 are insufficient to convey to a reader that the copy of the 2008 GTC was intended to be the set of contractual terms and conditions upon which Wartsila would agree to do the engine repairs.

Reasonable notice

122 For completeness, I will comment on the matter of reasonable notice being the second method of incorporation of standard terms and conditions. A refinement of the reasonable notice principles occurs where there is an onerous or unusual clause. Parties seeking to enforce clauses that contain onerous or unusual conditions have to show that they had been brought fairly and reasonably to the attention of the other party (see *Interfoto Picture Library Ltd v Stiletto Visual Programmes Ltd* [1989] 1 QB 433, at 438-439). This requirement is often referred to as the "red hand" rule. It bears mentioning that Wartsila does not dispute that cl 6 of the 2008 GTC is onerous and unusual, and therefore the red-hand rule has to be satisfied.

123 I am not persuaded that the evidence would support Wartsila's case that the 2008 GTC formed part of the Repair Contract because reasonable notice had been given from the fact that a copy of 2008 GTC was furnished to LWP. This view is based on my earlier analysis of the nature and extent of the 2008 GTC. Separately, even though cl 6 is in capital letters, cl 6.1 is clearly intended for "Service Work" performed under the 2008 GTC and by Wartsila's definition in cl 1 of the 2008 GTC, the 2010 Quotation was not for services to be performed in the field. Wartsila had not drawn cl 6 of the 2008 GTC to the attention of the plaintiffs for the works contracted under the 2010 Quotation. There were also issues with the nomenclature of the incorporating clause (*ie*, cl 2.8).

124 Wartsila cited the case of *Kenwell & Co Pte Ltd v Southern Ocean Shipbuilding Co Pte Ltd* [1998] 2 SLR(R) 583 ("*Kenwell*") in support of their position. According to Wartsila, that case stands for the proposition that in cases where the other party is found to probably know about the existence of the standard conditions, the standard conditions will be found to be part of the contract between the parties. I agree with the plaintiffs' submissions that *Kenwell* is distinguishable. The plaintiff in that case had engaged the defendant, Southern Ocean Shipbuilding ("SOS"), and other contractors to carry out repairs to its vessel. Kenwell claimed damages for the delay in the overhaul works, and the cost of making good defective repairs done by SOS. SOS sought to rely on cl 9 of SOS's standard conditions, which purported to, *inter alia*, limit its liability for negligence to S\$5,000, and relieve it of any liability for loss of profit, loss of use of the vessel, or damages consequential on such loss of use.

125 Warren L H Khoo J held that the standard conditions formed part of the contract between the

parties because (see *Kenwell* at [42]–[43]):

- (a) The plaintiff's representatives had signed the work order forms containing SOS's standard conditions, and these work order forms formed part of the parties' agreement;
- (b) The standard conditions were found on the reverse side of the work order forms, and a reference to them were found on the front side; and
- (c) There was no dispute as to the wording used in the incorporating clause found on the front of the work order forms.

126 Warren Khoo J's comments at [42] that the plaintiffs "probably knew about the existence if not the details of the standard conditions" must be read in light of the fact that the work orders were *signed*. This is a key difference because the red-hand rule would then not apply (see *Press Automation Technology Pte Ltd v Trans-Link Exhibition Forwarding Pte Ltd* [2003] 1 SLR(R) 712 at [39]; *Abani Trading Pte Ltd v BNP Paribas and another appeal* [2014] 3 SLR 909 at [86]).

127 Having reached the conclusion that the 2008 GTC (cl 6 in particular) were not incorporated, I do not propose to comment on the issue of the applicability of the Unfair Contract Terms Act.

Warranty clause in the 2010 Quotation

128 The plaintiffs accept that cl 1.4 of the 2010 Quotation does not apply to consequential losses and that it applies to defects arising from workmanship and or materials supplied only. Based on my findings above on the issue of causation, I take the view that the engine breakdown on 19 March 2011 was not attributable to workmanship or material supplied. Although, there is strictly no need to deal with the warranty clause, I will make a few points.

129 Wartsila argues that the plaintiffs are unable to rely on the warranty clause because Geniki Shipping did not pay the last instalment of the repairs in accordance with the timelines set in cl 1.3 of the 2010 Quotation. There is no dispute that the last instalment was due on 31 January 2011, and that payment was only made on 30 May 2011. The material part of the cl 1.4 is as follows: "... [o]ur warranty terms will cease to apply if due payment is not fully made." [\[note: 76\]](#)

130 There is some suggestion that there was no late payment as the plaintiffs had obtained a time extension from Wartsila through informal phone calls between LWP and ACL. However, I agree with Wartsila that the evidence on this point was sparse. It was not corroborated by any documentary evidence, and this point was neither pleaded in the plaintiff's pleadings nor put to Wartsila's witnesses.

131 I do not think this disposes completely of this point though. Clause 1.4 states that the warranty would cease to apply "if due payment is not fully made." It does not directly address the scenario where full payment of what was due was eventually made, as in this case. In my view, this question can be resolved by interpreting cl 1.4. In ascribing a certain interpretation to cl 1.4, both text and context must be considered. The meaning ascribed should also not be too radical a departure from the plain and ordinary meaning of the expression used. Where the text is ambiguous, context will be of first importance (see *Soup Restaurant* at [34]).

132 In the present case, the ambiguity lies in whether cl 1.4 would remain in effect when due payment was eventually made even though such payment was late. In my view, taking the context into consideration, it would make little commercial sense for Wartsila to be required to honour the

warranty when it has not been paid in full during the period of the warranty. In my view the plaintiffs were not entitled to rely on cl 1.4.

133 I now address a separate point. While the plaintiffs had, in their Statement of Claim, referred to the warranty in cl 1.4, no arguments based on defects attributable to workmanship or materials supplied were expounded upon. Instead, the plaintiffs pinned their case on how Wartsila were negligent in their repair services. These are separate and distinct issues. That a warranty clause like cl 1.4 is a standalone add-on to a service receiver's or buyer's gamut of contractual or statutory rights finds support in *Rogers and another v Parish (Scarborough) Ltd and another* [1987] 1 QB 933 at 945C, where Mustill LJ held that a similar warranty is an addition to a vehicle buyer's rights under the Sale of Goods Act 1979 (c 54) (UK).

134 Additionally, there are significant differences in proof of liability or entitlement to liability, as well as the remedy or recourse to be sought. To establish a breach of a duty of care – either a tortious duty or a contractual duty stemming from an implied term of the Repair Contract – the plaintiffs must show that Wartsila owed a duty of care, fell below the standard of care expected, and that damage was caused. One form of redress for such a breach is an award of damages – which is the remedy sought by the plaintiffs in the present case. In contrast, the plaintiffs' rights under cl 1.4 is circumscribed by the clause itself. To avail themselves of the warranty, they must adduce evidence to show that the defects are attributable to workmanship or materials supplied. I would venture to add that it would seem easier for the plaintiffs to seek recourse under cl 1.4, subject to the other express limitations set out in the provision (the stipulation that the warranty would only remain in effect if due payment is fully made).

135 In a proper case, it may even be possible to run an argument based on a breach of an implied term relating to the quality of the replacement crankshaft. Fitness for purpose may be another point of contention given how quickly the engine broke down after the crankshaft was replaced. That said, these are unaddressed issues that were not pleaded.

Suit 168

136 Since I found in Suit 521 that the plaintiffs' action in contract and tort against Wartsila would not be made out on the basis that causation is not established, the defendant in Suit 168, LYC, has to pay Wartsila for the outstanding charges for the 2011 repairs. LYC's main defence to liability was very much tied to Wartsila's negligence in the 2010 repairs. LYC's other defence challenges the validity of the Letter of Undertaking ("LOU"). LYC's case is that: (a) the LOU was provided under economic duress; (b) the LOU fails for want of consideration; and/or (c) the terms of the LOU are too uncertain. For the reasons stated below, I find the LOU to be valid and enforceable against LYC.

137 It is a convenient juncture to set out the relevant portion of the LOU: [\[note: 77\]](#)

Further to our tele-conversation and email reply dated 01 Jun 2011. I hereby to responsible for the outstanding payment (in 9 instalments after initial down-payment of SGD100,000/- paid on 31 May 2011) for the above vessel which returned to Wartsila for repair again, provided if the damage was not faulted by Wartsila's workmanship or negligence.

138 I will address the three objections to the LOU in turn.

Economic duress

139 LYC's pleaded case is that he had given the LOU under immense commercial pressure. The

allegation is that the parties had reached an agreement that payment for the 2011 repairs would only be made if it could be shown that Wartsila was not at fault for the engine breakdown on 19 March 2011. LYC's case is that a threat not to release the vessel unless full payment was made or security for payment in the form of a personal undertaking was provided constituted a threat of unlawful action amounting to illegitimate pressure. It is LYC's case that Wartsila was well aware that the vessel was integral to the running of Geniki Shipping/Aga-Intra's liner service. Wartsila therefore knew that any delay in the return of the vessel to them may result in their having to cancel scheduled transshipments and suffer financial loss. LYC was therefore compelled to provide the LOU under duress.

140 Wartsila denies exerting any pressure, let alone illegitimate pressure on LYC at any stage:

(a) The e-mail sent by ACL to LWP on 31 May 2011 at 9.16 am (see [141] below) was simply a recognition of how the parties were stuck in a deadlock, and that this deadlock could only be broken by referring the matter to higher management;

(b) LWP's proposal of pre-payment deposits instead of settling the charges for the 2011 repairs pending investigations as to the cause of the 19 March 2011 breakdown was, in itself, an indication that Wartsila was not pressuring Geniki Shipping who was negotiating for more time to fulfil its payment obligations; and

(c) The telephone conversations that Wartsila's Albert Lim Chor Gian ("AL") had with LYC were actually cordial. In fact, LYC had told AL that Geniki Shipping was unable to pay for the 2011 repairs, and that Geniki Shipping needed the vessel back so that it could use the vessel to generate income and make payment to Wartsila. AL then expressed a willingness to accommodate Geniki Shipping's predicament, but at the same time, he added that Wartsila had to safeguard its own interests by securing payment of the 2011 repairs. LWP then communicated LYC's willingness to provide the LOU and Wartsila accepted this proposal.

141 It is convenient to now set out ACL's e-mail (31 May 2011 at 9.16 am) referred to in [140] above. It reads: [\[note: 78\]](#)

... we regret to note both sides cannot come to an agreement on personal undertaking for remaining outstanding amount in 9 installments after the initial downpayment of \$S100K.

Meanwhile, we await both management to come to an amicable agreement before arranging the vessel for sea trial.

142 LWP replied on 31 May 2011, at 11.12am, informing AL and ACL that Geniki Shipping would be placing a pre-payment deposit of S\$100,000 with "the balance of pre-payment to be settled in 9 months equal installments", [\[note: 79\]](#) subject to how the issue of whether Wartsila was negligent for the 2010 repairs was resolved. Specifically, Wartsila was to refund all moneys received as pre-payment deposits within two weeks and bear the costs for the 2011 repairs if it was subsequently discovered that Wartsila had previously been negligent.

143 Geniki Shipping/Aga-Intra then paid Wartsila S\$100,000 via telegraphic transfer. This was confirmed via an e-mail from one Ms Agnes Chong of Aga-Intra on 31 May 2011, at 3.23pm. AL replied this e-mail later that afternoon at 5.08pm, stating that the S\$100,000 would be treated as *part-payment*. In other words, Wartsila did not see the payment as a pre-payment deposit.

144 I prefer Wartsila's version of events to that of LYC's. On its face, the payment arrangement that the parties entered into seemed beneficial to both Geniki Shipping/Aga-Intra and Wartsila. As

ACL had testified, the former would get their vessel back, and Wartsila would have some security for the payment of the costs of the 2011 repairs. This was a solution to what would otherwise have been an impasse. It was not an exploitative arrangement suggestive of duress. Wartsila's explanation of the e-mail sent by ACL to LWP on 31 May 2011 at 9.16 am also coheres better with the contents of that e-mail. In my view, this particular e-mail does not – as LYC alleges – resemble a threat.

145 At the outset, it must be noted the economic duress only arises in very exceptional situations (see *Eastern Resource Management Services Ltd v Chiu Teng Construction Co Pte Ltd* [2016] SGHC 114 ("*Eastern Resource Management Services*") at [24]; *The Law of Contract in Singapore* at para 12.020). The applicable test for economic duress is set out in *Tjong Very Sumito and others v Chan Sing En and others* [2012] 3 SLR 953 ("*Tjong Very Sumito*") (at [247]):

There are two elements to constitute duress, viz, (a) the exertion of illegitimate pressure and (b) such pressure amounting to the compulsion of the victim's will (see, for example, *Universe Tankships Inc of Monrovia v International Transport Workers Federation* [1983] 1 AC 366 at 400, *Tam Tak Chuen v Khairul bin Abdul Rahman* [2009] 2 SLR(R) 240 ("*Tam Tak Chuen*") at [22] and *E C Investment Holding Pte Ltd v Ridout Residence Pte Ltd* [2011] 2 SLR 232 ("*E C Investment*") at [51]). The causative threshold a plaintiff needs to meet is discussed in *Treitel* at para 10-005 (endorsed in *E C Investment* at [52]) as follows:

[T]he two factors may also be said to be interdependent in the sense that the more illegitimate the pressure the lower the causal threshold. This may explain why, for duress of the person, it need only be proved that the threat was one reason why the contract was entered into, whereas for economic duress the minimum requirement before it can be said that the threat was a significant cause is to satisfy the 'but for' test, i.e. that the agreement would not have been made at all or on the terms it was made. [emphasis added]

146 The threat of unlawful action – such as the threat of contractual breaches – may amount to illegitimate pressure, but this is not invariably the case. On the distinction between threatened contractual breaches which amount to duress and those that do not, the High Court in *Tjong Very Sumito* (at [250]) cited *Sharon Global Solutions Pte Ltd v LG International (Singapore) Pte Ltd* [2001] 2 SLR(R) 233 ("*Sharon Global*") at [32] with approval:

... [D]eliberate exploitation of the victim's position with a view to gaining some advantage unrelated to the contract and to which the threatening party knows he is not entitled is clearly illegitimate. Conversely, an apparent threat should not be treated as illegitimate if it was really no more than a true statement that, unless the demand is met, the party making it will be unable to perform; nor if the party has a genuine belief that he is legally entitled to the amount demanded. It is suggested that a demand made in good faith, in the sense that the party demanding has a genuine belief in the moral strength of his claim – for example, because he has encountered serious and unexpected difficulties in performing and will suffer considerable hardship if his demand is not met; or to correct an acknowledged imbalance in the existing contract – might in some circumstances also be treated as legitimate. Here the behaviour of the victim, for example whether he protests, will be relevant. First, it will go to causation... secondly, payment without protest may leave the demanding party believing that the justice of his demand is admitted, whereas it will be harder for him to prove that he was acting in good faith if he ignores the victim's protests. [emphasis added]

147 With the principles set out in mind, I turn to Geniki Shipping/Aga-Intra's argument: that the breach of contract threatened in the present case is the breach of the alleged agreement that payment for the 2011 repairs would only fall due after it was established that the engine breakdown

on 19 March 2011 was not the fault of Wartsila. To support the existence of such an agreement, LYC refers to an e-mail from ACL on 29 March 2011 at 1.46pm. ACL states in this e-mail that investigations into the cause of the engine breakdown will be made, and added that “[i]n the event, the fault is due to miscarriage of the shipboard operating and maintenance procedure, Wartsila Singapore reserve the right to charge Geniki Shipping Pte Ltd the full amount incurred to carry out the crankshaft and bedplate renewal...” [\[note: 80\]](#) ACL then goes on to add that Wartsila would be submitting its quotation for the 2011 repairs. In fact, the quotation for the 2011 repairs was sent slightly earlier by Wartsila’s Sales Engineer on 29 March 2011 at 11.34am. In response to that e-mail, LWP replied on 29 March 2011 at 6.50pm commenting on the quotation, including that “[p]ayment terms to be discussed after the completion of investigation report. However, it is agreed that Wartsila shall not hold the vessel under any circumstance.” Notably, the e-mail exchanges were in March 2011; it was only ten days after the breakdown and both sides were agreeable to investigating the cause of the breakdown whilst the vessel was being repaired.

148 At the point in time when the LOU was discussed (31 May 2011 to 2 June 2011), [\[note: 81\]](#) the cause(s) underlying the engine breakdown on 19 March 2011 had yet to be ascertained: the first DNV report date 12 May 2011 had been obtained but that report only expounded on damage to the main bearings; Braemar had been engaged in April 2011 but the report was only produced on 10 October 2011 (see [13] above). In addition during that same period (31 May 2011 to 2 June 2011), the 2011 repairs were nearing completion (the vessel was scheduled for basin and sea trials on 1 and 2 June 2011) and LYC wanted the vessel back. Seen in this light, I would consider that fresh discussions for LYC to provide a personal undertaking was a new development necessitated by the confluence of circumstances. A new arrangement had to be entered into while investigations as to the cause of the engine was going on so that Wartsila could be paid or have payment security for the repairs it carried out, and the vessel could be released. The discussions on the LOU arrangement were not, as LYC alleges, borne out of a threat to breach the agreement reached in March 2011 that the costs of the 2011 repairs would be borne by the party to blame for the engine breakdown on 19 March 2011. I agree with Wartsila that it had not pressured Geniki Shipping/Aga-Intra and LYC into furnishing the LOU.

149 At trial, ACL’s oral testimony explains that all Wartsila was doing at the material time was to safeguard its position for the repairs it had carried out: [\[note: 82\]](#)

A: ... If you are me in the businessman position, and you have a... at stake of having a dispute, you have to protect the company interests to ensure that the outstanding amount have been secured or been pre-agreed upon before you can even release.

...

A: I’m trying to find a solution... now, look here. If we cannot come to a conclusion, or a solution, I will not able to release the vessel. Who is suffering? The owner, Geniki, is suffering, not Wartsila. But, on the other hand, I had to protect Wartsila’s interests to safeguard the payment. So as long as we come to an agreement, then we can move forward together.

150 Implicit in ACL’s evidence that he “will not [be] able to release vessel” without finding a “solution” is his understanding that as a ship repairer, Wartsila was entitled to detain the vessel as security. LYC’s offer to provide a personal undertaking in exchange for the release of the vessel resonates with Wartsila’s thinking that the vessel need not be released. Thus, there was a genuine belief on the part of Wartsila that the LOU was a “solution” and was a way for both parties to “move

forward together". Such language is far removed from the picture painted that Wartsila was asserting illegitimate pressure. It should also be noted that AL's unchallenged evidence is that it was LYC who raised the concern that Geniki Shipping/Aga-Intra might not be able to fulfil its payment obligations before the vessel was due for departure. The LOU arrangement was entered into in light of the concern that the vessel was required to generate income. [\[note: 83\]](#) I accept that the initiative of a personal undertaking from LYC came from LYC as AL's unchallenged evidence is that it was not Wartsila's practice to accept a personal undertaking from a customer. Eventually, he accepted LYC's personal undertaking as LYC had convinced him of the mutual benefits from this arrangement. [\[note: 84\]](#)

151 The lack of protests from LWP and LYC is also telling. AL's evidence was that the conversations with LYC were amicable and cordial. [\[note: 85\]](#) As stated, LWP offered LYC's personal undertaking and there was no prior objection or questioning of the basis for such a personal undertaking in exchange for the release of the vessel. For these reasons, I find that Wartsila had not been exerting illegitimate pressure. Having found that the first element of economic duress is not made out, I see no need to address the second element of economic duress – *ie*, the compulsion of will.

152 This is a good juncture for me to segue briefly into the issue of a repairer's possessory lien. Counsel for LYC objects to any arguments on Wartsila's entitlement to exercise a possessory lien as it was not pleaded. However, counsel replied to Wartsila's assertion of a possessory lien. Since both parties have dealt with this issue in their closing submissions, I make some remarks.

153 On a preliminary note, it ought to be mentioned that Wartsila also holds the position that in relation the issue of duress, the vessel was not even ready to depart from the yard so any purported threat in the form of a retention of vessel is a non-starter. The vessel was released on 4 June 2011 after the 2011 repairs were completed. Leaving that aside, the question of whether Wartsila was entitled to detain the vessel is legally relevant for the question of duress – if Wartsila did enjoy such a right by virtue of a repairer's lien, the issue would be characterised as a threat of lawful action instead. In this regard, the applicable legal propositions in *Tjong Very Sumito* are as follows (at [252]):

Threats of lawful action can also constitute duress. However, a corollary of the rule that a party pleading duress must prove illegitimate pressure, as opposed to mere commercial pressure, is that where the threatened act is in itself lawful, it would be extremely difficult, and indeed, rare, to be able to prove economic duress, especially in the commercial context (*CTN Cash and Carry Ltd v Gallaher Ltd* [1994] 4 All ER 714 ("*CTN Cash and Carry*") at 719 and *E C Investment* ([247] *supra*) at [47] and [51]). This arises from the need to ensure certainty in the commercial bargaining process (*Tam Tak Chuen* ([247] *supra*) at [50] and *E C Investment* at [48]–[49]). Four factors are relevant to the question of whether a threat of lawful action is illegitimate (*Enochong* at para 3-022, *Tam Tak Chuen* at [50] and *E C Investment* at [48]), *viz*:

- (a) whether the threat is an abuse of legal process;
- (b) whether the demand is not made *bona fide*;
- (c) whether the demand is unreasonable; and
- (d) whether the threat is considered unconscionable in the light of all the circumstances.

154 With the four factors listed above in mind, if Wartsila had a valid possessory lien at common

law, the so-called threat to retain the vessel would not constitute an illegitimate pressure. The retention of the vessel would have been a legitimate exercise of the possessory lien that the ship repairer was entitled to. Any demand for a personal undertaking, in lieu of possession of the vessel, was made *bona fide* and reasonably.

155 At the point when the LOU was discussed, Wartsila was told that Geniki Shipping/Aga-Intra would not be able to pay for the costs of the 2011 repairs. As a matter of principle, ship repairers are entitled to the self-help remedy of asserting a common law possessory lien against the vessel to the sum of the outstanding repair costs (see *The "Dwima 1"* [1996] 1 SLR(R) 927; *Pan-United Shipyard Pte Ltd v The Chase Manhattan Bank (National Association)* [1999] 1 SLR(R) 703). This would cover the price of work done – *ie*, the agreed price or a reasonable charge for both materials and labour and any incidental expenses (see Nigel Meeson and John A Kimbell in *Admiralty Jurisdiction and Practice* (Informa, 4th Ed, 2011) at para 6.21).

156 In closing submissions for LYC, it was submitted that the remedy of a possessory lien was *excluded* by the terms of the repair contract governing the 2011 repairs. His counsel relies on the following proposition made in *Tappenden v Artus and another* [1964] 2 QB 185 ("*Tappenden*"), at 195: "[t]he remedy can be excluded by the terms of the contract made with the repairer either expressly or by necessary implication from other terms which are inconsistent with the exercise of a possessory lien." Then, counsel argues that Wartsila's right to a repairer's lien was excluded by the term that Wartsila was only to be paid if it was shown that the engine breakdown on 19 March 2011 was not attributable to Wartsila's bad workmanship or negligence. According to counsel, by necessary implication, the right to be paid would only arise when it is established that the defects are not attributable to Wartsila's shortcomings – therefore, the right to assert a possessory lien was excluded.

157 I disagree with this analysis as the imposition of a condition on the right to payment, though a fetter on Wartsila's right, is not *inconsistent* with the exercise of a possessory lien. This contrasts with terms of the contract that diametrically contradict the premises upon which a possessory lien is exercised, *ie*, a continuing right of possession and a right to payment. Such inconsistency was found in *Forth v Simpson* (1849) 13 QB 680 (which was referenced in *Tappenden*), where the court held that a racehorse trainer was not able to exercise a lien over a racehorse for his fees when his contract had reserved to the owner of the racehorse the right to decide the places at which and the jockeys by whom it was to be raced. Similarly, in *Your Response Ltd v Datateam Business Media Ltd* [2014] EWCA Civ 281, the English Court of Appeal also considered (albeit *obiter*, at [31]) that a data manager could not be said to exercise a lien over data because the data was made freely available by the provision of a password to a publisher and that was "inconsistent with the... kind of exclusive control that would equate to the continuing possession required for the exercise of a lien".

158 As mentioned, the fact that the right to payment was subject to a condition does not, by "necessary implication" mean that the right to exercise the lien was excluded. At best, the time to exercise the lien would be deferred.

Lack of consideration

159 The second branch of LYC's arguments against the validity or enforceability of the LOU is that the agreement was not validly formed due to a lack of consideration. I disagree with this. The circumstances surrounding the LOU arrangement bear repeating (see [147]–[151] above). At the point in time when the LOU arrangement was entered into, there was an impasse between both parties. Geniki Shipping/Aga-Intra wanted the vessel back but it only wanted to pay the costs of the 2011 repairs if it was subsequently established that the engine breakdown on 19 March 2011 was not

due to Wartsila's poor workmanship or negligence. Wartsila agreed that payment would be subject to the condition envisaged. It was willing to release the vessel once repairs were completed, but it wanted to ensure that there was some security for its right to payment for the 2011 repairs. The LOU arrangement was struck as a result.

160 It would be useful to set out the material passage of the LOU in full again: [\[note: 86\]](#)

"Further in our tele-conversation and email reply dated 01 Jun 2011. I hereby to responsible for the outstanding payment (in 9 instalments after initial down-payment of SGD100,000/- paid on 31 May 2011) for the above vessel which had returned to Wartsila for repair again, provided if the damage was not faulted by Wartsila's workmanship or negligence."

It bears mention that aside from the initial payment of S\$100,000, which was made via telegraphic transfer on 31 May 2010, [\[note: 87\]](#) the remaining sums due (in 9 instalments) would only be payable if the same condition – damage not faulted by Wartsila's workmanship or negligence – was satisfied.

161 The terms of the LOU therefore presented a more favourable set of payment conditions than those that would apply in the absence of the LOU – *ie*, payment within 30 days of the date of the invoice. In my view, this suffices as consideration furnished by Wartsila in exchange for the provision of the LOU.

162 On a side note, Wartsila raised its entitlement to assert a possessory lien over the vessel. As stated, LYC's objection is that this assertion of a possession lien was not pleaded. As an observation, Wartsila would have provided consideration by giving up possession and allowing the vessel to depart from the yard in return for the personal undertaking provided for by LYC. Under common law, a repairer would lose his possessory lien if he parts with possession of the vessel, and it is trite that detriment taken on by the promisee can constitute good consideration (see *Gay Choon Ing v Loh Sze Ti Terence Peter and another appeal* [2009] 2 SLR(R) 332 (at [67] and [80])).

163 I should add that there is no need for the consideration to flow from the promisee to the promisor. Instead, consideration may move from the promisee to a third party (see *The Law of Contract in Singapore* at para 04.021, citing *Tsu Soo Sin nee Oei Karen v Ng Yee Hoon* [2008] SGHC 30 (at [104])). Hence, even if it were Geniki Shipping/Aga-Intra, instead of LYC that directly benefitted from the more favourable payment terms in the LOU or Wartsila's forbearance in asserting the possessory lien, good consideration would still have been furnished.

Lack of certainty

164 Finally, LYC submits that the LOU is not enforceable because the terms of the LOU are uncertain: the wording of the LOU (see [160] above) can be interpreted to either mean that LYC was providing a *guarantee* in relation to the first Plaintiff's obligations to pay for the 2011 repairs or that LYC was taking on a *direct obligation* to pay for the 2011 repairs as long as it was established that the 2011 repairs were not a result of Wartsila's negligence.

165 As a starting point, it bears mention that courts do not expect documents prepared by the parties to be drafted with utmost precision and certainty. Courts endeavour to give effect to agreements, and not render them nugatory. The following comment made by Lord Wright in *Hillas & Co Ltd v Arcos Ltd* (1932) 147 LT 503 at 514, which was cited by Warren Khoo J in *Gardner Smith (SE Asia) Pte Ltd v Jee Woo Trading Pte Ltd* [1998] 1 SLR(R) 950 at [10], provides some useful guidance:

Business men often record the most important agreements in crude and summary fashion; modes

of expression sufficient and clear to them in the course of their business may appear to those unfamiliar with the business far from complete or precise. It is accordingly the duty of the court to construe such documents fairly and broadly, without being too astute or subtle in finding defects; but, on the contrary, the court should seek to apply the old maxim of English law, *verba ita sunt intelligenda ut res magis valeat quam pereat*. [Words are to be understood in such a manner that the subject matter be preserved rather than destroyed.]

166 With this in mind, I turn to address the wording of the LOU. Undoubtedly, the LOU is not worded with absolute precision. But it is trite that even agreements that contain a slight element of uncertainty should be enforced rather than destroyed. In any case, I find that clarity can be found through an exercise of interpretation, taking into account the discussions leading up to the provision of the LOU, in order to clarify the parties' intention at the point in time when the LOU was entered into. Most notably, in an e-mail dated 1 June 2011, with the subject header "RE: Geniki Sarawak Draft Invoice", LYC told AL the following: [\[note: 88\]](#)

Further our telecon just a moment, kindly proceed to depart the vessel as scheduled and I, Lau Yew Choong, MD of Geniki Shipping, will be responsible for the balance of payment if the damage was not faulted by the repairer's workmanship or negligence.

This was the e-mail referenced in the wording of the LOU. This e-mail conveys the message that LYC was taking on personal responsibility for the balance of payment. No reference was made to how LYC would merely be acting as a guarantor in the event that Geniki Shipping/Aga-Intra renege on their payment obligations. It is therefore clear that LYC had undertaken a direct obligation to make payment of the repair charges owing to Wartsila.

167 This is corroborated by the earlier e-mail that ACL sent to LWP dated 31 May 2011, which used the phrase "personal undertaking". Further, in LWP's reply dated 31 May 2011 as well, he expressed his opinion that "*a personal or corporate undertaking* is not necessary because the term that we agreed in writing will suffice in the context of Singapore law." [\[note: 89\]](#) [emphasis added]

168 In my view, the parties had always envisaged a direct, personal undertaking to pay as opposed to a guarantee. Thus, I am not convinced that the words or terms of the LOU was uncertain to the extent that it should be unenforceable. For the above reasons, I find that the LOU remains valid and enforceable. Good consideration was furnished, LYC provided the LOU without any duress and the LOU is sufficiently clear.

169 In LYC's closing submissions, it was further alleged that the LOU was uncertain because there was uncertainty as to when the nine instalments were to be paid, and the amount of each of the nine instalments. There was nothing to this allegation. On the face of the LOU, it was clear that the instalments would fall due once there was a conclusion as to the cause of the engine breakdown on 19 March 2011. In my view, it was envisaged by the parties that the Braemar Report would provide such closure, seeing that Braemar was jointly appointed. After the release of the Braemar Report – which was inconclusive on the exact cause of the engine breakdown – Geniki Shipping/Aga-Intra no longer had any basis to maintain their position that the engine breakdown was attributable to Wartsila's negligence or poor workmanship. I find that the entire outstanding sum of S\$210,000 would be recoverable nine months after the release of the Braemar Report. In fact, that was the position taken by Wartsila who issued a letter of demand on 21 September 2012 [\[note: 90\]](#) – more than nine months after the Braemar Report. As for the quantum of each instalment to be paid, it was expressly stipulated in LWP's email dated (see above at [142]) that the outstanding fees were to be paid in nine equal instalments.

Conclusion

170 For the reasons stated above, I dismiss the plaintiffs' action against Wartsila in Suit 521. I will hear parties on costs.

171 As for Suit 168, LYC is liable for the outstanding repair costs in the sum of S\$210,000 pursuant to the LOU. I will hear parties on interest and costs.

[\[note: 1\]](#) Lim Woei Pyng's Affidavit of Evidence-in-Chief ("LWP's AEIC"), p 188.

[\[note: 2\]](#) 5AB 1372-1385.

[\[note: 3\]](#) 5AB 1378-1379.

[\[note: 4\]](#) LWP's AEIC, pp 203-210.

[\[note: 5\]](#) LWP's AEIC, p 209.

[\[note: 6\]](#) Statement of Claim (Amendment No 4) in suit 521 ("SOC Suit 521"), para 17.

[\[note: 7\]](#) Closing Submissions of the plaintiffs in Suit 521 ("PCS"), p 30.

[\[note: 8\]](#) Closing Submissions of the Defendant in Suit 521 ("DCS"), para 163; Transcript dated 2 September 2016, p 78.

[\[note: 9\]](#) DCS, paras 62-95.

[\[note: 10\]](#) Defence (Amendment No 3) in Suit 521, para 7(c).

[\[note: 11\]](#) Transcript dated 18 August 2016, pp 13 and 25.

[\[note: 12\]](#) 3AB 820-834.

[\[note: 13\]](#) Transcript dated 16 August 2016, p 19.

[\[note: 14\]](#) Transcript dated 16 August 2016, p 19.

[\[note: 15\]](#) Transcript dated 16 August 2016, p 20.

[\[note: 16\]](#) Transcript dated 25 August 2016, pp 122-124.

[\[note: 17\]](#) Transcript dated 2 September 2016, p 78.

[\[note: 18\]](#) Michael Thompson's Affidavit of Evidence-in-Chief ("Thompson's AEIC"), p 558.

[\[note: 19\]](#) Transcript dated 26 August 2016, pp 12 and 31.

[\[note: 20\]](#) Transcript dated 26 August 2016, p 37.

[\[note: 21\]](#) Transcript dated 25 August 2016, p 149.

[\[note: 22\]](#) Transcript dated 16 August 2016, pp 46–47.

[\[note: 23\]](#) LWP’s AEIC, p 158.

[\[note: 24\]](#) 4AB 986.

[\[note: 25\]](#) 4AB 987.

[\[note: 26\]](#) 4AB 988.

[\[note: 27\]](#) LWP’s AEIC, p 159.

[\[note: 28\]](#) LWP’s SAEIC, p 349.

[\[note: 29\]](#) Transcript dated 19 August 2016, pp 93–94.

[\[note: 30\]](#) Transcript dated 26 August 2016, p 16.

[\[note: 31\]](#) Transcript dated 25 August 2016, p 136.

[\[note: 32\]](#) Transcript dated 26 August 2016, pp 26–28.

[\[note: 33\]](#) Transcript dated 26 August 2016, p 25.

[\[note: 34\]](#) Transcript dated 26 August 2016, p 43.

[\[note: 35\]](#) Transcript dated 2 September 2016, p 95.

[\[note: 36\]](#) PCS, para 99.

[\[note: 37\]](#) Transcript dated 26 August 2016, p 45.

[\[note: 38\]](#) Transcript dated 26 August 2016, p 43.

[\[note: 39\]](#) Transcript dated 26 August 2016, p 24

[\[note: 40\]](#) Transcript dated 26 August 2016, p 25.

[\[note: 41\]](#) PCS, para 38.

[\[note: 42\]](#) Transcript dated 25 August 2016, p 33.

[\[note: 43\]](#) Transcript dated 25 August 2016, p 20.

[\[note: 44\]](#) Transcript dated 25 August 2016, pp 35 and 43.

[\[note: 45\]](#) Wee Swee Kwee's AEIC, exhibit "WSK-1", p 38.

[\[note: 46\]](#) Transcript dated 25 August 2016, p 37.

[\[note: 47\]](#) Transcript dated 25 August 2016, p 41.

[\[note: 48\]](#) Transcript dated 25 August 2016, pp 25, 27, 29, 41-42, 44.

[\[note: 49\]](#) Transcript dated 25 August 2016, p 13.

[\[note: 50\]](#) Transcript dated 25 August 2016, p 15.

[\[note: 51\]](#) Transcript dated 25 August 2016, p 14.

[\[note: 52\]](#) Transcript dated 25 August 2016, p 16.

[\[note: 53\]](#) Transcript dated 25 August 2016, p 45.

[\[note: 54\]](#) Transcript dated 25 August 2016, p 15.

[\[note: 55\]](#) Transcript dated 25 August 2016, pp 107-108.

[\[note: 56\]](#) Transcript dated 25 August 2016, p 87.

[\[note: 57\]](#) Transcript dated 25 August 2016, p 84.

[\[note: 58\]](#) LWP's SAEIC, p 335.

[\[note: 59\]](#) Thompson's AEIC, p 568.

[\[note: 60\]](#) LWP's SAEIC, p 336.

[\[note: 61\]](#) PCS, para 203.

[\[note: 62\]](#) Transcript dated 16 August 2016, p 77.

[\[note: 63\]](#) 3AB 624.

[\[note: 64\]](#) 3AB 622-623.

[\[note: 65\]](#) 3AB 625.

[\[note: 66\]](#) 3AB 622.

[\[note: 67\]](#) 3AB 642.

[\[note: 68\]](#) DCS, paras 15–17.

[\[note: 69\]](#) Transcript dated 23 August 2016, p 67.

[\[note: 70\]](#) Transcript dated 23 August 2016, p 42.

[\[note: 71\]](#) 3AB 650.

[\[note: 72\]](#) PCS, paras 6, 7, and 13.

[\[note: 73\]](#) 3AB 624.

[\[note: 74\]](#) 3AB 622.

[\[note: 75\]](#) Defendant's Opening Statement, paras 3334; DCS, paras 8–11.

[\[note: 76\]](#) 3AB 649.

[\[note: 77\]](#) LWP's SAEIC, p 266.

[\[note: 78\]](#) LWP's SAEIC, p 248.

[\[note: 79\]](#) LWP's SAEIC, p 253.

[\[note: 80\]](#) LWP's SAEIC, p 239.

[\[note: 81\]](#) LWP's SAEIC, pp 245–262.

[\[note: 82\]](#) Transcript dated 23 August 2016, pp 53–55.

[\[note: 83\]](#) DCS, para 189; AL's AEIC, p 4.

[\[note: 84\]](#) AL's SAEIC, para 8.

[\[note: 85\]](#) AL's AEIC, para 15.

[\[note: 86\]](#) 5AB 1250.

[\[note: 87\]](#) LWP's SAEIC, p 260.

[\[note: 88\]](#) 5AB 1225.

[\[note: 89\]](#) LWP's SAEIC, p 251.

[\[note: 90\]](#) 6AB 1741.

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