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OPINION

Plaintiff Berge Helene Ltd. (“Berge”) asserts in this action against Defendants GE Oil & Gas, Inc. and John Does 1-10¹ (“GE”) claims of breach of express warranties, breach of implied warranty of fitness for a particular purpose,

¹ John Does 1-10 are other entities or associations affiliated with GE who were or may have been involved in the manufacture and sale of the compression module.

and fraud by omission. The Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1332 and 1333.

This case was tried to the Court on seventeen separate days from May 21 through July 5, 2012. Each party presented numerous live witnesses, depositions, and extensive exhibits. Having carefully considered all the evidence introduced by the parties, all matters of record in this case, the arguments of counsel, and applicable authorities, the Court makes the following findings of fact and conclusions of law. The Court first summarizes the facts essential to an understanding of the parties, their relationships, and a chronology of events. Additional important facts are described where necessary in connection with analysis of the legal issues presented.²

I. FINDINGS OF FACT

A. Parties and Background

Plaintiff Berge Helene Ltd. (“Berge”)³ is an experienced operator of floating production, storage, and offloading units (“FPSOs”). Berge Helene Ltd. is an entity organized and existing under the laws of Bermuda. Berge owns the BERGE HELENE, a FPSO. FPSOs generally are used for the production and storage of petroleum products. A key function of an FPSO is to process the components of a well stream, which generally comprise petroleum (“oil”), water, and gas. The oil is

² The Court explains the evidence and uses various forms of the word “find” to indicate a finding of fact, and sets forth legal principles and uses forms of the words “hold” and “conclude” to indicate a conclusion of law. To the extent a finding of fact is more properly a conclusion of law, and to the extent a conclusion of law is more properly a finding of fact, it should be so construed.

³ Berge Helene Ltd. is a part of the Bergesen family of companies, which includes “Bergesen d.y. Offshore AS” and “Berge Helene Offshore AS.” Through various transactions, the BERGE HELENE came to be owned by Berge Helene Ltd. (“Berge”). The Court refers to these affiliated entities as “Berge” throughout the opinion.

generally isolated and stored. The water is cleaned and returned to the sea or injected into the reservoir to maintain reservoir pressure. The gas is compressed by a gas compression module on the topside of the FPSO.⁴

There are five participants and four contracts relevant to the events in issue. All participants are highly sophisticated businesses.

Woodside Mauritania Pty. Ltd. (“Woodside”) sought bids for the lease and operation of an FPSO in 2003. Woodside hoped to be the first to develop the Chinguetti oil field off the coast of Mauritania, Africa. On May 29, 2004, Berge entered into a contract with Woodside to provide the requested FPSO.⁵ Because the Chinguetti field contained the first commercial discovery of oil in Mauritania, Woodside wanted to fast-track the development of the Chinguetti project in order to give Woodside a competitive edge in the region. The reserve estimate of the Chinguetti field was originally 123 million barrels of oil (“MMBO”), but the estimate was lowered to 68 MMBO in 2004 and was further decreased to 34 MMBO by the end of 2007.

Woodside’s contract with Berge was to have the BERGE HELENE refitted to receive and produce processed crude oil at Chinguetti. The Woodside-Berge contract obligated Berge, *inter alia*, to operate and maintain the BERGE HELENE to “receive Production from the subsea system into the FPSO,” “process the Production by separating oil, gas and water,” “produce Processed Crude at a rate which [meets] the [specified] Volumes,” and carry out compression and reinjection

⁴ The gas is stored, used, or disposed of in one of several ways. For instance, it may be stored by re-injection into designated places below the seabed, “flared” into the atmosphere, or injected into the wells or risers to generate lift to facilitate the extraction and movement of petroleum products from beneath the seabed. On the BERGE HELENE, at certain times, gas was also used to operate certain topside equipment.

⁵ PX 131, at 10.

of processed gas as required under the agreement.⁶ The Woodside-Berge contract required the FPSO BERGE HELENE, among other things, to compress up to 70 million standard cubic feet per day (“mmscfd”) of gas.⁷ The contract provided that Berge would be paid a base day rate (“BDR”) of \$95,000 (this figure was later increased to \$104,000).⁸ However, if 90% of required compression were not supplied on any given day (that is, at least 63 mmscfd), Woodside would be entitled to reduce the day rates otherwise payable to Berge under the contract.⁹ Berge was the supplier to Woodside.

Berge contracted with a Norwegian company, ABB Offshores Systems AS (referred to hereafter as “Aibel”)¹⁰ on June 24, 2004, to supply, install, and operate various types of topside modules aboard the BERGE HELENE, including the M60 gas compression module with three GE compressors (labeled A, B, and C).¹¹ Berge selected Aibel over a competitor, Gas Services International, Ltd. (“GSI”), that proposed to supply compressors by Ariel Corporation (“Ariel”), a well-regarded and very experienced compressor manufacturer in the oil and gas industry.¹² Berge and Aibel had had a business relationship since 2001 pursuant to an operating agreement¹³ and had worked together on various projects. At least in

⁶ *Id.* at 17 ¶ 3.1.

⁷ PX 50, at 5 ¶ T6.3; PX 127, at 3 ¶ 21.

⁸ PX 131, at 74 ¶ B3.3.3.

⁹ *Id.* at 30, ¶ 12.2(d); PX 894, at 1-2.

¹⁰ ABB Offshore Systems AS was the entity with which Berge dealt, but the corporate entity later became known as Aibel and Vetco Aibel AS. For ease of reference, the Court uses the name “Aibel” throughout this opinion.

¹¹ PX 160.

¹² *See* PX 47.

¹³ DX 3 (Aibel-Berge Operations Agreement, dated 8/14/01).

part, Berge selected Aibel to supply the M60 compression module because Woodside preferred to have all the BERGE HELENE topside modules provided by the same company, and Aibel was to supply other modules for the FPSO. The purchase price and installation cost of all the topside modules was \$24.5 million.¹⁴ The price Aibel charged Berge for the M60 module with three GE compressors was \$9,208,488.¹⁵

In the oil and gas industry, it is common practice for one company's gas compressors to be "packaged" by third parties, called "packagers," into a compression module. The packager generally constructs and may also be involved in the design of the machinery, piping, and other components that surround and are sold with the compressors in a compression module. In July 2004, Aibel contracted with Flotech Limited ("Flotech"), a New Zealand-based packager of compressors. Flotech was to package the M60 gas compression module for Aibel for the BERGE HELENE for approximately \$2 million.¹⁶

For the M60 compression module, Flotech ordered from GE three SHMB604 model reciprocating compressors at a total cost of \$593,679.¹⁷ As of 2004, Flotech and GE had been operating for over a year pursuant to a Packager Agreement ("GE-Flotech Agreement"), under which Flotech committed to package compressors manufactured by GE.¹⁸ GE is a Delaware corporation, with a principal place of business in Houston, Texas. GE ultimately supplied model SHMB604 compressors for Flotech's installation in the M60 compression module

¹⁴ PX 160, at 4, 6.

¹⁵ *Id.* at 4.

¹⁶ PX 221, at 38-42, 63, 66.

¹⁷ PX 134A, at 2.

¹⁸ PX 29.

that Flotech delivered to Aibel for the BERGE HELENE. The SHMB604s were made with an Italian frame designed and made by Nuovo Pignone (“NP”), a GE subsidiary that principally designed and sold compressors in Europe. GE used cylinders and moving parts manufactured by Gemini, a Texas-based compressor manufacturer that GE earlier had acquired.

B. Bidding and Sale Process

As noted, in 2003, Woodside sought bids for the lease and operation of an FPSO to be deployed in the Chinguetti field. In 2003, Berge submitted a tender to Woodside.¹⁹ In preparing its FPSO tender to Woodside, Berge sought a bid for the M60 module from two companies, one of which was Aibel. Aibel included GE F-606 compressors in its proposal. The F-606 model was larger and more expensive than the one Aibel and Berge ultimately chose.

Because Aibel learned that Berge was seriously considering selecting the other bidder to supply the M60 compression module, Aibel sought a meeting with Berge to introduce Aibel’s proposed compression module team. On February 5, 2004, Berge representatives met with Aibel, Flotech, and GE at a sales meeting in Oslo, Norway. Two GE sales people attended. At that time, GE mentioned the idea of using a new model compressor, the SHMB604, for the FPSO BERGE HELENE. GE provided Berge representatives a compact disk (“CD”) titled “Software and Technical Data” with background information on GE compressors.²⁰ The CD contained the GE EZ Size Program that packagers and customers could use to determine the size compressor they wanted.

Shortly after the Oslo meeting, Berge received from Aibel a hard-copy packet of promotional materials. GE contributed to these materials, which

¹⁹ PX 50.

²⁰ DX 28.

included a three-page flyer called “GE Oil & Gas Compressor News” (“Flyer”) reflecting a maximum gas rod load of 72,000 pounds (“lbs.”) for the SHMB604 compressors. The materials also contained a GE “EZ Size Data Sheet” dated February 9, 2004 (“February 2004 Data Sheet”), which reflected a maximum rod load of 72,752 lbs. in tension and in compression for the SHMB604.²¹

C. SHMB604 Compressors and Packaging into the M60 Module

The SHMB604 compressors were promoted, designed, and sold under American Petroleum Industry 11 (“API 11”) standards.²² API 11 standard for gas compressors states:

The maximum operating rod load (gas or combined) shall not exceed the maximum allowable operating rod loading for the compressor or any rod load limitation specified by the purchaser at any specified operating condition. The packager shall quote gas rod load unless specified otherwise by the purchaser. If other than operating rod load calculations are specified, the purchaser will provide operating parameters to the packager for making these calculations. Gas-plus-inertia rod load refers to the maximum allowable rod loads set with reference to the net forces of gas and weight that all compressor components can tolerate.²³

An “application limit” is the advertised limit used by an application engineer to size a compressor and includes a safety margin below the “hard limit.” A “hard limit” is the maximum allowable limit for continuous and safe operation and includes a safety margin below the “fatigue fail limit.”

²¹ PX 87.

²² See, e.g., Tolk Test. (Depo.) – Day 13; Bassani Test. – Day 13; McDonald Test. – Day 14-15. In the compressor industry, there are two API standards: API 618 and API 11. API 618 standard compressors are more complex and more costly than API 11 compressors because the requirements of API 618 are more strict than those of API 11. See McKee Test. – Day 8-9; Bassani Test. – Day 13; Pratesi Test. – Day 16.

²³ PX 3.

The SHMB604 compressor consists of an Italian frame and four American cylinders. The first two cylinders constitute the compressor's "first stage," the third cylinder is the "second stage," and the fourth cylinder constitutes the "third stage." The frame of the compressor is considered a stationary part. The moving parts (called the "running gear") inside the compressor comprise a piston, piston rod, crosshead, crosshead pin, crankshaft, and connecting rod.

In late 2003 or early 2004, Berge supplied the parties with a detailed Chinguetti field projection that included a "P50" estimate of the probable reserves of oil, gas, and water composition expected in the seabed fluids to be extracted.²⁴ The experts' estimate was that there would be approximately 75,000 barrels of oil per day ("BOPD") and between 30 and 50 mmscfd gas. This estimate was the basis of the design of the GE compressors, the M60 module and all other topside equipment on the BERGE HELENE.

GE set the gas flow capacity of the SHMB604 compressors using its American EZ Size software. The EZ Size software also calculates the gas rod loads acting on a compressor's frame, for each stage of compression. GE distributed its EZ Size software widely to its packagers, at trade shows, and to potential customers (including Berge, in the Technical Data CD). A user of this software is able to do extensive analysis and may print out a one-page summary data sheet that shows the maximum gas rod load application limits at the top of the sheet and the calculated operating gas rod loads at the bottom of the sheet. EZ Size software calculates, for each stage of compression, the gas-plus-inertia loads acting on the certain components of the compressors' running gear, such as the piston rod

²⁴ A P50 estimate of recoverable or potentially recoverable volumes of oil and gas is a representation that there should be at least a 50% probability that the quantities actually recovered will equal or exceed this estimate.

and crosshead pin. The gas-plus-inertia load limits and the calculated gas-plus-inertia loads for each stage of compression are visible to the person operating the EZ Size program on the computer.

GE set machine strength of the SHMB604 compressors (*e.g.*, application and hard limits of piston rod load and crosshead pin load) using Italian Calc-26 software,²⁵ although it appears that GE engineers also checked, or had their United States counterparts check, these conclusions in the EZ Size program. Calc-26 calculates gas rod loads acting on a compressor's frame as well as the gas-plus-inertia loads on the running gear for each stage of compression. The Calc-26 printout is far more detailed than the EZ Size printouts.

GE delivered the compressors to Flotech on or about October 7, 2004. The compressors were thereafter "packaged" into the M60 module by Flotech. The M60 compression module contained and was connected to numerous other components, such as pulsation bottles, tubing, coalescers/coolers, and separators. The M60 module was delivered to Aibel in Thailand. Aibel incorporated the M60 compression module into the rest of the FPSO topside equipment and delivered it to Berge on or about March 25, 2005, at a shipyard in Singapore. Testing of the compression module by Aibel commenced on or about October 28, 2005. The BERGE HELENE was moved from Singapore to Africa and anchored at Chinguetti in November 2005. Additional testing and start-up of all the topside equipment proceeded thereafter.

Difficulties with the M60 (and other) equipment occurred and became an issue in or about May 2006. Berge reported more than 180 "stops" of the M60 module between May and November 2006. Berge and Woodside decided to shut

²⁵ See, *e.g.*, McDonald – Day 15, 31-32; Sarshar – Day 15, 321-24; Pratesi – Day 16, 150-51, 175.

down the M60 module in early November 2006 because of concerns of accidents that could harm personnel and the FPSO.

Final documentation accompanying GE's compressors in the M60 module included a GE supplied August 13, 2004 Data Sheet ("August 2004 Data Sheet").²⁶ It is this data sheet on which Berge most heavily relies for its warranty claims. The August 13, 2004 Data Sheet states that each compressor could provide 23.39 mmscfd of compression, and thus the three units would provide a total of 70.17 mmscfd, *if* suction pressure (inlet pressure of the gas) was 148 pounds per square inch gauge ("psig").²⁷ This documentation was delivered to Berge well before the M60 module was tested or even shipped to the Chinguetti field, and before actual field operating conditions were known.

D. Features of the Parties' Contracts

As noted, there are four contracts relevant to this dispute. First, there is the Woodside-Berge contract. The primary Woodside goal was oil production. The contract also provided a base day rate ("BDR") to be paid by Woodside to Berge based in pertinent part on the amount of gas compressed by the FPSO. The BDR could be reduced if the gas injection system was operating at less than 90% of the required level. However, after production began, Woodside realized that extraction of oil from the Chinguetti field was very difficult, and the field never performed as expected. Gas and water content of the seabed fluids were much higher than expected. Woodside's projected oil production during the first year was far lower than expected from the P50 which formed the basis of the entire FPSO topside design. The gas-oil ratio ("GOR") of the produced fluid was much higher than expected and in 2006, was climbing at a very problematic rate. To

²⁶ PX 209.

²⁷ *See, e.g.*, PX 209. This is equivalent to 10.2 barg or 11.2 bara.

maximize oil production, as it turned out, Woodside needed lower suction pressure for the M60 module.

Woodside and Berge renegotiated the rates and penalties in light of the materially changed field circumstances. Woodside and Berge allocated and controlled risk through mutual indemnity provisions and exclusions of liability for all consequential damages, and excluded recovery for lost profits or incidental and consequential damages.²⁸

Berge agreed with Woodside that Berge would be the “agent” of all its subcontractors (any company “engaged by [Berge] to execute a portion of the Work”). Prior to the start of operations, Berge did not disclose to GE the terms of the Woodside-Berge contract.

The Berge-Aibel Operations Contract was significant in that Aibel agreed to be “responsible for its subcontractors and all parts of the Work performed by such subcontractors from time to time.”²⁹ Berge recognized in this contract that where actual field or reservoir conditions differ from client-supplied appraisals, there could be costly “consequences to the operations and maintenance caused by the actual field’s environmental, soil or reservoir characteristics,” and Berge agreed to “meet any additional cost incurred by Contractor as a result of errors, omissions or inaccuracies in this [reservoir] information.”³⁰ Aibel obligated itself to fully furnish and equip the FPSO for operational requirements consistent with the Basis

²⁸ DX 131, at 15.

²⁹ DX 3, at ¶ 6.01(H). The Berge-Aibel contract defined “Contractor Group” to include “[Aibel] and any of its affiliates which are involved in the performance of the WORK, any participating companies in any joint venture with Contractor for the performance of the WORK, Contractor subcontractor and vendors, and the employees of any party mentioned above.” *Id.* ¶ 1.10.

³⁰ *Id.* ¶ 6.03.

of Design in the Woodside-Berge agreement, including the compression module.³¹ The parties agreed that Norwegian law would apply. They also agreed that neither would be liable for any special, consequential, incidental, indirect, or exemplary loss or damages.³² Berge excluded damages for consequential damages relating to the gas compression module.³³ Aibel's customer was Berge.

Aibel entered into a contract with Flotech in July 2004, wherein Flotech agreed to provide the engineering, fabrication, and supply (*i.e.*, the “packaging”) of the M60 gas compression module on the BERGE HELENE. Flotech agreed it had “overall responsibility for the proper technical completion of the equipment and services” as defined in the contract.³⁴ Flotech agreed to remedy deficiencies in the “Goods” being supplied.³⁵ These parties' contract barred recovery of lost profits or consequential damages by either party and limited liability to the contract price.³⁶ Aibel was Flotech's customer.

Flotech submitted a purchase order to GE on June 3, 2004³⁷ for the SHMB604 compressors, which were designed in light of the “Basis of Design” in the Woodside contract with Berge. Berge and Aibel changed the design conditions during Summer 2004, and Flotech submitted different purchase orders to GE to

³¹ See, e.g., DX 3.

³² *Id.* at 14-15 ¶ 7.06; PX 131, at 57 ¶ 46.5.

³³ PX 131, at 57 ¶ 46.5.

³⁴ PX 221, at 65 ¶ 1 (Flotech-Aibel Contract).

³⁵ *Id.* at 55, ¶ 16.1. Also, the GE Packager and Distributors Manual Policies and Procedures, which Berge received, states that Flotech, as the packager, has the “responsibility to evaluate the user's application and to provide a system design and process guarantee that ensures that the compressors used are compatible with the service.” PX 10, at 2 ¶ 2.0.

³⁶ PX 221, at 59 ¶ 22.1.

³⁷ PX 134A.

reflect these changed conditions. GE presented Flotech with a final Order Acknowledgment in August 2004.³⁸ GE was paid less than \$200,000 per compressor.³⁹ These parties agreed (paragraph 5) that:

[Flotech] is not the agent of [GE] and has no right or authority to assume or create any obligation of any kind, express or implied, on behalf of [GE], or to bind [GE] in any respect whatsoever. The relationship of [Flotech] to [GE] is that of independent contractor, and in no event shall [Flotech] and [GE] be considered to be joint venture[r]s, partners or to have any other similar legal relationship for any purposes whatsoever.⁴⁰

This contract excluded liability for consequential damages and set a total liability limit of the purchase price of the compressors, \$593,679.⁴¹ Under this contract, Flotech was required to pass GE's limits of liability and very limited warranty to Flotech's customers.⁴² Flotech was GE's customer, and GE communicated during the design period and for some time thereafter solely with Flotech, its contract partner.

E. Procedural History

On October 1, 2008, Berge sued GE and John Does 1-10 in this Court alleging breach of express warranties and breach of implied warranty of fitness for a particular purpose. After the parties engaged in extensive worldwide discovery, GE moved for summary judgment. The Court denied this relief in large part on November 16, 2011. *See* Memorandum and Order [Doc. # 230] (denying Defendant's Motion for Summary Judgment on Plaintiff's Implied Warranty

³⁸ PX 195C. This Order Acknowledgement was subject to the Terms and Conditions of the parties' pre-existing 2002 Packager Agreement.

³⁹ *Id.* at 1.

⁴⁰ PX 29, at 1 ¶ 5 (GE-Flotech Contract).

⁴¹ *Id.* at 3-4 ¶ 15(b).

⁴² *Id.* at 3 ¶ 15(a).

Claims [Doc. # 179], granting in small part and denying in part Defendants' Motion for Summary Judgment on Plaintiff's Express Warranty Claims [Doc. # 180], and denying Defendants' Motion for Summary Judgment on Plaintiff's Damages Claims [Doc. # 181]).

At Docket Call on January 18, 2012, the Court set trial to start February 13, 2012. On February 2, 2012, the Court held a discovery hearing on sixty-one documents, consisting of 2,500 pages, belatedly produced by GE in January 2012—more than seven months after the close of discovery and less than one month before the original trial date in February 2012. Hearing Minutes & Order [Doc. # 280]. At the hearing, the Court granted Berge leave to amend to add a fraud claim. *See id.*

On February 9, 2012, Berge filed a First Amended Complaint [Doc. # 282], adding a fraud claim related to piston rod loads. Berge seeks \$17,710,486 in damages for lost BDR and \$23,649,185 in damages for the purchase, transportation, and installation of a supplemental compressor. Berge also seeks punitive or exemplary damages for GE's alleged fraudulent conduct as well as attorneys' fees for GE's conduct in litigation.

On May 15, 2012, GE filed a Motion to Strike [Doc. # 305], seeking to strike references by Berge in its pretrial filings [Docs. # 291, 292, 293] of a fraud claim related to crosshead pin loads. The Court granted GE's Motion to Strike [Doc. # 305] because the crosshead pin issue had not been pleaded in Berge's First Amended Complaint.

II. LEGAL ANALYSIS: PRIVACY IN MARITIME WARRANTY CLAIMS

A. Maritime Jurisdiction

To ascertain the extent of admiralty jurisdiction over contracts and claims arising from contract, courts look first to the nature or subject matter of the

contract. *Norfolk S. Ry. Co. v. Kirby*, 543 U.S. 14, 23-24 (2004) (citations omitted). Contracts for repair, alteration, conversion, or reconstruction of a vessel which, previous to such work, was actively engaged in maritime commerce or navigation generally are considered maritime contracts. *N. Pac. S.S. Co. v. Hall Bros. Marine Ry. & Shipbuilding Co.*, 249 U.S. 119, 128 (1918); *One Beacon Ins. Co. v. Crowley Marine Servs., Inc.*, 648 F.3d 258, 262 (5th Cir. 2011). Disputes over warranties arising from such contracts also fall within maritime jurisdiction. 1 THOMAS J. SHOENBAUM, ADMIRALTY & MAR. LAW § 5-8 (5th ed.) (“SHOENBAUM”). The parties agree that this Court has maritime jurisdiction over the breach of warranty claims. *See* First Amended Complaint [Doc. # 282-2], at 3; Revised Joint Pretrial Order [Doc. # 290], at 4.

B. Sources of Maritime Law

“Absent a relevant statute, the general maritime law, as developed by the judiciary, applies. Drawn from state and federal sources, the general maritime law is an amalgam of traditional common-law rules, modifications of those rules, and newly created rules.” *E. River S.S. Corp. v. Transamerica Delaval, Inc.*, 476 U.S. 858, 864-65 (1986) (citations omitted); *One Beacon Ins.*, 648 F.3d at 262 (5th Cir. 2011). The key policy underlying federal maritime jurisdiction is need for uniformity in the development of maritime law. *See S. Pac. Co. v. Jensen*, 244 U.S. 205, 216 (1917), *superseded by statute on other grounds*, Longshoremen’s & Harbor Workers’ Compensation Act of 1927, 44 Stat. 1424; *Green v. Vermilion Corp.*, 144 F.3d 332, 340 (5th Cir. 1998) (“[T]he constant theme of these Supreme Court opinions is that the uniformity of admiralty law must be preserved and that state law may be applied only where it works no ‘material prejudice to the essential features of the general maritime law.’ That uniformity is not to be sacrificed to accommodate state law is a fundamental premise of admiralty jurisdiction.”

(citations omitted)); *Coats v. Penrod Drilling Corp.*, 61 F.3d 1113, 1137 (5th Cir. 1995).

“[T]he need for predictability in the commercial maritime arena is arguably greater than in other areas of law and commerce. This is true because there are already numerous and inherently unpredictable factors stemming from the perils of the sea and the continual—and frequently fortuitous—interaction with enterprises of other nations. It is axiomatic that when the rules of law are clear, parties may contract within or around their boundaries, and the commercial system is facilitated in many ways, including reduced litigation, more favorable insurance coverage, and overall ease of application.” *Coats*, 61 F.3d at 1137; *see also* 1 SHOENBAUM § 4-1.

Generally, there are four sources of admiralty law: (1) the general maritime law, (2) federal statutes, (3) international agreements, and (4) state law (insofar as appropriate in the admiralty context). The first category, general maritime law, is a body of concepts, principles, and rules that have been adopted and expounded over time by the federal courts. Because general maritime law is not a complete or all-inclusive system, federal courts may fashion a rule for decision when situations arise that are not directly governed by legislation or admiralty precedent. Courts create admiralty rules only when there is a substantial need to fashion new rules. *Koninklyke Nederlandsche Stoomboot Maalschappy, N.V. v. Strachan Shipping Co.*, 301 F.2d 741, 744 (5th Cir. 1962); 1 SHOENBAUM § 4-2. Thus, in the absence of a federal statute, a judicially-fashioned federal rule, or a need for uniformity, courts may apply relevant state law. *See Wilburn Boat Co. v. Fireman’s Fund Ins. Co.*, 348 U.S. 310, 314-16 (1955); *Ham Marine, Inc. v. Dresser Indus., Inc.*, 72 F.3d 454, 459 (5th Cir. 1995); *Koninklyke*, 301 F.2d at 743. For example, federal courts may look to, adopt, and apply as the federal admiralty rule state statutory law and precepts of the common law. *See generally Palestina v. Fernandez*, 701

F.2d 438, 439 (5th Cir. 1983) (holding that in “a garden variety state tort claim . . . where there is no uniform federal rule, ‘even though admiralty suits are governed by federal substantive and procedural law, courts applying maritime law may adopt state law by express or implied reference or by virtue of the interstitial nature of federal law.’” (citations omitted)). In this process, federal courts prefer to borrow the general common law rather than the law of any particular state because this promotes uniformity in the general maritime law. *Marastro Compania Naviera, S.A. v. Canadian Mar. Carriers, Ltd.*, 959 F.2d 49, 53 (5th Cir. 1992); *see, e.g., Har-Win, Inc. v. Consol. Grain & Barge Co.*, 794 F.2d 985, 987 (5th Cir. 1986) (applying general common law); *Atl. & Gulf Stevedores v. Revelle Shipping Agency, Inc.*, 750 F.2d 457, 459 (5th Cir. 1985) (same). Federal courts may also apply a particular state’s law as the default rule to a case within admiralty jurisdiction where there is no applicable admiralty rule or principle, where the uniformity principle is not crucial, *and* where local or state interests predominate. *Kossick v. United Fruit Co.*, 365 U.S. 731, 741 (1961); *Wilburn*, 348 U.S. at 314-16. Accordingly, a particular state’s law should not be applied as admiralty law where the need for uniformity is great, where state interests do not dominate, or where there is an applicable admiralty rule or principle. *See Kossick*, 365 U.S. at 741-42; *Wilburn*, 348 U.S. at 314-16; *Koninklyke*, 301 F.2d at 743.

In the summary judgment Memorandum and Order issued November 16, 2011 [Doc. # 230] (“November 2011 Memorandum”), this Court held that the Supreme Court’s decision in *East River Steamship Corp. v. Transamerica Delaval* did not establish maritime rules governing key issues in this case, such as privity, reliance, disclaimers, and consequential damages. The Court, believing this case had substantial connections to Texas, applied several Texas legal doctrines as maritime rules to evaluate Berge’s claims for breach of express warranty and breach of implied warranty of fitness of particular purpose. However, having

presided over the trial and reviewed the full factual record presented by the parties as well as the governing legal authorities, the Court’s view has changed. The Court now concludes that its pretrial legal conclusion is not legally correct, at least as applied to the facts proven at trial. The Court accordingly withdraws its earlier holding that the loose privity requirement of Texas state warranty law applies to this dispute. As explained in more detail hereafter, the facts adduced at trial reveal a great need for uniform legal rules in the circumstances presented. Applying Texas law—or even the general Uniform Commercial Code (“U.C.C.”)—on the scope of privity would hinder development of consistent and predictable maritime rules. In addition, the State of Texas has only a very limited interest in the outcome of this case, and Texas’s interest is insufficient to justify the application of Texas law on express and implied warranties. Moreover, the maritime principles articulated in *East River* counsel against recognition of Plaintiff Berge’s putative warranty claims. Thus, the Court concludes that Berge’s breach of warranty claims against GE are barred for lack of contractual privity.⁴³ The Court explains its reasoning below.

1. Maritime Uniformity

There is no explicit maritime rule, federal statute, or federal common law on privity in warranty claims in maritime actions. Thus, the Court must consider whether or not a state common law or the law of a single state should apply.

When federal courts apply state law in admiralty, courts prefer to borrow the general common law rather than the law of any particular state because this promotes uniformity in the general maritime law. *Marastro Compania*, 959 F.2d

⁴³ The Court also withdraws its pretrial rulings that other aspects of Texas warranty law constitute maritime law. However, there is no need for detailed analysis of these matters in light of other rulings herein.

at 53; *see, e.g., Har-Win, Inc.*, 794 F.2d at 987; *Revelle Shipping*, 750 F.2d at 459. Accordingly, courts look to the U.C.C. as a reliable source for federal admiralty law. *See N. Pac.*, 249 U.S. at 127; *Clem Perrin Marine Towing, Inc. v. Panama Canal Co.*, 730 F.2d 186, 189 (5th Cir. 1984); *see also Princess Cruises, Inc. v. Gen. Elec. Co.*, 143 F.3d 828, 832 (4th Cir. 1998); *Southworth Machinery Co. v. F/V Corey Pride*, 994 F.2d 37, 41 n.3 (1st Cir. 1993) (citations omitted). Here, the Court concludes that applying general U.C.C. rules or the law of Texas to decide privity requirements in maritime warranty actions would not advance the maritime goal of uniformity.

The U.C.C. does not supply a clear rule on the privity requirement in warranty actions. Instead, U.C.C. § 2-318 sets forth two statutory alternatives which relax the privity requirement for natural persons bringing breach of express or implied warranties claims for personal injuries, plus another less restrictive alternative.⁴⁴ Even more significantly, Comment 3 to U.C.C. § 2-318 explains that “the section . . . is neutral and is not intended to enlarge or restrict the developing

⁴⁴ The U.C.C. § 2-318 “Alternative A” provides that natural persons in the purchaser’s family or household, as well as certain guests, may sue for breach of warranty if “it is reasonable to expect that such person may use, consume or be affected by the goods” and if they are “injured in person” by the breach. “Alternative B” to § 2-318 extends the warranty rights of action to “any natural person who may reasonably be expected to use, consume or be affected by the goods” if they are “injured in person” by the breach. Section 2-318 also contains “Alternative C” that further extends the right by eliminating the natural person and physical injury requirements and permits warranty actions by “any person who may reasonably be expected to use, consume or be affected by the goods and who is *injured by* breach of the warranty.” U.C.C. § 2-318 (emphasis added). A majority of states have adopted Alternative A, but significant minorities have adopted Alternative B or C for horizontal privity requirements. At least one state has not adopted any of the three alternatives, choosing instead to abolish the privity requirement altogether by statute. *See, e.g.,* MISS. CODE ANN. § 11-7-20 (“In all causes of action for personal injury or property damage or economic loss brought on account of negligence, strict liability or breach of warranty, including actions brought under the provisions of the Uniform Commercial Code, privity shall not be a requirement to maintain said action.”).

case law on whether the seller’s warranties, given to his buyer who resells, extend to other persons in the distributive chain.” *Id.* (addressing “vertical privity”). Section 2-318 of the U.C.C. accordingly does not address the situation at bar where the plaintiff is in vertical privity with the defendant. *See Keith v. Stoelting, Inc.*, 915 F.2d 996, 999 (5th Cir. 1990).⁴⁵ Accordingly, the U.C.C. supplies no clear rule on whether a buyer in vertical privity may recover for economic loss. Furthermore, states have adopted widely varying requirements on privity for warranty claims. Texas has not adopted a legislative standard at all, choosing instead to delegate the matter to its state courts.⁴⁶ Furthermore, for vertical privity, state courts, including Texas, have introduced more uncertainty in the privity rule, looking to factors such as whether direct communications occurred between the defendant and buyer; whether the defendant was a manufacturer or component manufacturer; whether the parties were consumers or commercial entities; and whether the injury was physical or solely economic.⁴⁷

Berge seeks economic damages as the ultimate user which was in the distributive chain, but was not the buyer of GE’s compressors or even the M60 compression module in which the compressors were packaged. Because the

⁴⁵ *See also* WHITE & SUMMERS § 11-2 (5th ed.) (“Parties who have contracted with each other are said to be ‘in privity.’ Those who have not contracted are not in privity. There are two basic kinds of ‘non-privity’ plaintiffs. The ‘vertical’ non-privity plaintiff is a buyer within the distributive chain who did not buy directly from the defendant The ‘horizontal’ non-privity plaintiff is not a buyer within the distributive chain but one who consumes or uses or is affected by the goods.”).

⁴⁶ *See* TEX. BUS. & COM. CODE ANN. § 2.318 (“This chapter does not provide whether anyone other than a buyer may take advantage of an express or implied warranty of quality made to the buyer or whether the buyer or anyone entitled to take advantage of a warranty made to the buyer may sue a third party other than the immediate seller for deficiencies in the quality of the goods. These matters are left to the courts for their determination.”).

⁴⁷ *See* Pl. Pretrial Mem. of Law [Doc. # 293], at 4-5 n.1.

U.C.C. does not supply a clear rule on privity in these circumstances and because state law on privity has not developed uniformly, applying Texas or general state warranty law to the dispute at bar to eliminate the privity requirement would create significant inconsistency and unpredictability in maritime law.

2. Local or State Interests

In its November 2011 Memorandum, the Court concluded that Texas is the state within the United States with the greatest connections to the transactions, events in issue, and the parties, and thus concluded that application of Texas warranty law was appropriate. The trial record establishes clearly, however, only several relevant GE employees lived in Texas. All other participants were from foreign countries, *i.e.*, New Zealand, Norway, and Italy. It is clear now that while some sizing analysis for the compressors occurred in Texas, the compressors were manufactured in Wisconsin. Virtually all other key events occurred in foreign countries, including Norway, Italy, Thailand, Singapore, and off the coast of Mauritania. Further, the compressors in dispute not tested in Texas. Nor is Texas—or the United States—where the compressors were packaged into the complex M60M60 compression module. Indeed, the module was assembled by others in Thailand, tested by others in Singapore, and delivered by others to the BERGE HELENE in Africa. Texas also is not where the compressors or module allegedly malfunctioned and caused Berge economic injury. The evidence thus demonstrates that Texas and its citizens have only the most remote interest in the warranty claims in this case.

Texas warranty law, especially as interpreted by Plaintiff, is oriented toward protecting consumers. *See Nobility Homes of Tex., Inc. v. Shivers*, 557 S.W.2d 77, 81 (Tex. 1977) (“The fact that a product injures a consumer economically and not physically should not bar the consumer’s recovery. Economic loss can certainly be as disastrous as physical injury.”). In contrast, maritime law is designed to protect

freedom of contract and allocation of risk among commercial parties. *See Norfolk S. Ry. Co. v. Kirby*, 543 U.S. 14, 25 (2004) (“We have reiterated that the fundamental interest giving rise to maritime jurisdiction is the protection of maritime *commerce*.” (internal quotation marks and citation omitted)). Here, the dispute is not between a manufacturer and consumer over a defective product that caused physical injury in Texas or to a Texas resident. Rather, the claims in the suit involve two sophisticated parties concerning commercial equipment purchased by a New Zealand company for sale through a Norwegian entity to another Norwegian entity for use on a vessel (an FPSO) located off the coast of Africa. There were no physical injuries. In these circumstances, Texas’s interest is insufficient to justify application of its state warranty law as federal maritime law.⁴⁸

3. **East River Principles**

Although *East River* was not a breach of warranty case, it established a core maritime law principle: Manufacturers are not required to protect, independent of any contractual obligation, a commercial product from injuring itself. *See* 476 U.S. at 866-75. Applying *East River*’s core principle, the Court concludes that Berge’s warranty claims against GE for economic damages are not legally viable under maritime law because Berge lacks contractual privity with manufacturer GE.

In *East River*, the Supreme Court decided two issues. First, it recognized that the law of products liability, including negligence and strict liability, is a part of the general maritime law. *Id.* at 865. Second, it limited the scope of products

⁴⁸ Compare *Palestina*, 701 F.2d at 439 (applying Louisiana law under admiralty jurisdiction where the wrongful death action was “a garden variety state tort claim”). In contrast, the commercial, classic maritime dispute at bar concerns a vessel off the coast of Africa and is not such a “garden variety state tort” claim involving the death of an individual boat owner.

liability in the maritime tort context by holding that “a manufacturer in a commercial relationship has no duty under either a negligence or strict products-liability theory to prevent a product from injuring itself.” *Id.* In reaching the latter conclusion, the Court reviewed the purposes of product liability and its relationship to contract law, noting that “[p]roducts liability grew out of a public policy judgment that people need more protection from dangerous products than is afforded by the law of warranty.” *Id.* at 866 (citation omitted).⁴⁹ Where a product injures only itself, “the tort concern with safety is reduced,” and the availability of insurance and contractual remedies weigh against holding a manufacturer liable in tort. *Id.* at 871-72. The Court thus concluded that damage to a product itself “is the essence of a warranty action, through which a contracting party can seek to recoup the benefit of its bargain.” *Id.* at 871-73.

In addition to the nature of the injury, the Court identified other reasons why contract doctrines, indeed, warranty law as a subset of contract, is the proper route to pursue defective product claims for economic loss. First, warranty law is “well suited to commercial controversies . . . because the parties may set the terms of their own agreements”: “The manufacturer can restrict its liability, within limits, by disclaiming warranties or limiting remedies” and a plaintiff buyer can obtain “the full benefit of its bargain” by seeking expectation damages as well as repair costs and lost profits. *Id.* at 872-73. Second, warranty actions have a “built-in limitation on liability.” *Id.* at 874. In a contract claim, the limitation derives from “the agreement of the parties and the requirement that consequential damages, such as lost profits, be a foreseeable result of the breach.” *Id.* (citation omitted). “In a

⁴⁹ Where a defective product causes physical injury, the “‘cost of an injury and the loss of time or health may be an overwhelming misfortune,’ and one the person is not prepared to meet.” *E. River*, 476 U.S. at 886 (quoting *Escola v. Coca Cola Bottling Co.*, 150 P.2d 436, 441 (Cal. 1944) (Traynor, J., concurring))

warranty action where the loss is purely economic, the limitation derives from the requirements of foreseeability and of privity, which is still generally enforced for such claims in a commercial setting.” *Id.* (citing U.C.C. § 2–715; WHITE & SUMMERS, at 389, 396, 406-10). The Supreme Court thus expressed a core principle that warranties, and limitations on them, in the maritime context are creatures of commercial parties’ negotiations and agreement.

In the instant action, Berge asserts claims for breaches of express warranty and implied warranty of fitness for a particular purpose seeking economic losses from GE arising from GE’s design and manufacture of reciprocating gas compressors. In name, Berge’s warranty claims for economic damages do not appear barred by *East River* because they are distinct from the strict products liability and negligence actions expressly barred by the Court. *See id.* at 876.⁵⁰ The evidence at trial demonstrates factually, however, that Berge’s warranty claims run afoul of *East River*’s core principle that maritime law does not provide a remedy, independent of a bargained-for obligation, when a commercial product injures itself.

First, there is no contract between GE and Berge. Instead, there are three separate contracts regarding the gas compression equipment for the BERGE HELENE. Berge’s predecessor in interest, Bergesen d.y. ASA, entered into a contract with Aibel for the purchase and installation of the M60, a complex compression module. Aibel separately entered into a contract with Flotech to create and package that multi-component module. Finally, Flotech contracted with

⁵⁰ Furthermore, the Supreme Court expressly reaffirmed that the law of warranty applies to claims involving economic loss only. *E. River*, 476 U.S. at 876 (“[W]hether stated in negligence or strict liability, no products-liability claim lies in admiralty when the only injury claimed is economic loss.”); *see id.* at 872 (“Damage to a product itself is most naturally understood as a warranty claim.”).

GE to purchase three SHMB604 compressors for the module. GE's only contract was to sell its compressors to Flotech for installation into the modules Flotech sold to Aibel. The testimony of Berge, Aibel, Flotech, and GE witnesses establishes—and the documentary evidence reinforces—that with the one exception of a sales promotion meeting on February 5, 2004, attended by representatives of all four companies, Berge conferred with its contractual partner Aibel, and did not confer with GE, until well after the compression module was designed, assembled, tested, and installed. Significantly, GE's communications during the design and packaging phases were with Flotech. All witnesses confirmed that, thereafter, the parties' protocols and industry practice dictated that parties' communications were only to be with immediate contract partners.⁵¹ In contrast, the warranty claims contemplated by the Supreme Court in *East River* were to arise from disputes between direct contracting parties or among parties who negotiated the terms of their transaction. *See, e.g.*, 476 U.S. at 866.⁵² In substance, the Supreme Court identified *contractual warranty* actions as the proper vehicle for pursuing defective product claims in which the only loss is economic loss, *i.e.*, claims for damage to the goods purchased.⁵³ The Court did not need to and did not address warranty

⁵¹ Numerous witnesses testified that it would have been “inappropriate” for parties to communicate outside the contractual chain. *See, e.g.*, Svendsen – Day 1, at 129-30; 151-52; Karlsen Test. (Depo.) – Day 1, at 317-18; Normann Test. – Day 2, at 78-80; Kristiansen Test. – Day 2, at 188-89; Vogt Test. – Day 4, at 44-45; Broadbent Test. – Day 12, at 226-27.

⁵² Recognizing that certain states no longer require contractual privity in warranty actions, *see E. River*, 476 U.S. at 873 n.8, the Supreme Court concluded, however, “the main currents of tort law run in different directions from those of contract and warranty, and the latter seem to us far more appropriate for commercial disputes of the kind involved here.” *Id.*

⁵³ The Supreme Court ultimately concluded that commercial parties seeking damages for economic loss should bring actions based in contract. *See id.* at 872 (“[A] (continued . . .)

claims against a party lacking privity with the ultimate purchaser, as in the case at bar.

Second, unlike the circumstances envisioned in *East River*, GE lacked meaningful opportunity to negotiate the scope of any warranties to Berge or to limit remedies owed to Berge. The only pertinent direct communication between GE and Berge occurred at the February 2004 sales pitch meeting in Oslo. Trial testimony established that no participant believed that negotiations or definitive promises were made at that meeting. GE and Berge had no communications between February and August 2004, when negotiations for the compressors and compressor design concluded and the various agreements between parties in the contractual chain were signed. All parties in the contractual chain—Berge with Aibel, Aibel with Flotech, and Flotech with GE—limited their respective liabilities to their contractual partner.⁵⁴ GE’s contract with Flotech specifically limited its warranties⁵⁵ and required that Flotech pass along GE’s disclaimers and

claim of a nonworking product can be brought as a breach-of-warranty action. Or, if the customer prefers, it can reject the product or revoke its acceptance and sue for breach of contract.” (citations omitted)).

⁵⁴ PX 29 (GE-Flotech contract), 160 (Aibel-Berge contract), 221 (Flotech-Aibel contract).

⁵⁵ Schedule C to the GE-Flotech Agreement provides in pertinent part:

Maintenance or wear items such as Piston Rings, Packing Rings, Wiper Rings, Valve Plates, Valve Springs, Gaskets, O-Rings, etc. are not warrantable. Prototypes or nonstandard Manufacturers’ configurations are covered under a separate agreement. Damage resulting from improper storage, neglect, extreme environmental conditions, misapplication, service and maintenance inconsistent with the operator’s manual or overloading of a machine is not covered under this warranty policy For the warranty period, manufacturer shall repair or replace defective material and workmanship

(continued . . .)

limitations.⁵⁶ Berge contracted solely with Aibel, and each respectively limited its warranty and damages exposure to the other.⁵⁷ Aibel had an intermediate contract with Flotech, with its own warranties and limitations.⁵⁸

GE, however, had no negotiations or contract with, nor opportunity to reach terms with Berge directly. Although Flotech apparently complied with the “pass-along” requirement of liability limitations, as evidenced by a provision in the Flotech-Aibel contract,⁵⁹ there is no evidence that Aibel communicated this term or gave a copy of the GE-Flotech contract to Berge. In contrast to the warranty actions contemplated by *East River* where “[t]he manufacturer can restrict its liability, within limits, by disclaiming warranties or limiting remedies,” 476 U.S. at 873, the parties at bar elected not to provide this opportunity.

Finally, Berge is and was a sophisticated commercial party. Had it so desired, it could have negotiated express warranties in an agreement with GE.

THE WARRANTIES SUPPLIED UNDER THIS POLICY ARE THE EXCLUSIVE REMEDIES FOR ALL CLAIMS BASED ON FAILURE OF OR DEFECT IN EQUIPMENT OR SERVICES. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ORAL OR WRITTEN, ARE HEREBY DISCLAIMED AND NEGATED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE

PX 29, at 13-14 (GE-Flotech Agreement).

⁵⁶ *Id.* at 14 (“[PACKAGER] agrees to pass on to its customers as part of the terms of Packager’s contracts with its customers . . . Manufacturer’s Terms and Conditions of Sale dealing with warranty and limitation of liability.”).

⁵⁷ PX 160, at 10 ¶ 22.

⁵⁸ PX 221, at 59 ¶ 21.

⁵⁹ *See id.* at 59 ¶ 21.4 (“In no event, whether as a result of breach of contract, warranty, indemnity, tort (including negligence), strict liability, or otherwise, shall Supplier or Buyer or their Subsuppliers be liable towards the other party for loss of profit or revenues, loss of use of the Product or for any special, consequential, incidental, indirect or exemplary loss or damages.”).

Berge, in this manner, could have memorialized any promises or warranties related to GE's design and manufacture of the compressors on which it sought to rely. But, Berge did not do so. Under *East River* principles, Berge's failure to enter into such an agreement at the outset weighs against permitting it to obtain such relief now. *See id.* at 873-75.⁶⁰ "Since a commercial situation generally does not involve large disparities in bargaining power, we see no reason to intrude into the parties' allocation of the risk." *Id.* at 873 (citations omitted).

This result is consistent with Fifth Circuit decisions applying *East River*. The Fifth Circuit has extended that case's economic loss rule to the maritime warranty of workmanlike performance arising from contracts for professional services. *See Emp'rs Ins. of Wausau v. Suwannee River Spa Lines, Inc.*, 866 F.2d 752, 766 (5th Cir. 1989) ("[A] party that provides professional services as part of the manufacture or construction of a product has no duty in maritime tort, independent of its contractual obligations, to prevent the product from injuring itself." (citation omitted)). The Fifth Circuit has also declined to recognize a post-sale negligence exception to the maritime economic loss doctrine. *See Turbomeca, S.A. v. Era Helicopters LLC*, 536 F.3d 351, 356 (5th Cir. 2008) ("The policy of economic loss is better adjusted by contract rules than by tort principles. This

⁶⁰ In *East River*, the Supreme Court explained:

In the charterers' agreements with the owners, the charterers took the ships in 'as is' condition, after inspection, and assumed full responsibility for them, including responsibility for maintenance and repairs and for obtaining certain forms of insurance. In a separate agreement between each charterer and Seatrain, Seatrain agreed to guarantee certain payments and covenants by each charterer to the owner. The contractual responsibilities thus were clearly laid out. There is no reason to extricate the parties from their bargain.

E. River, 476 U.S. at 875 (citations omitted).

conclusion is as true for strict liability and negligence cases as it is for failure to warn cases.” (quoting *Sea-Land Serv., Inc. v. Gen. Electric Co.*, 34 F.3d 149, 155-56 (3d Cir. 1998)). While these cases do not involve claims of express or implied warranties, they apply *East River*’s reasoning to reaffirm the principle that maritime law does not require manufacturers to protect, independent of any contractual obligation, a commercial product from injuring itself. See *Wausau*, 866 F.2d at 763 (“We conclude that *East River*’s broad concern for preserving the integrity of contract law in commercial settings applies equally [here].”); cf. *Chevron USA, Inc. v. Aker Mar., Inc.*, 604 F.3d 888, 900 (5th Cir. 2010) (“If the damage is instead to the product itself or a loss of profits, the action properly is in warranty or contract, for responsibility for those damages can more reasonably be the subject of negotiations.” (citation omitted)). *East River* applies similarly to bar Berge’s warranty claims here. The Court concludes that *East River* does not support abandonment of the privity requirement in warranty actions under maritime law. The Court concludes that Berge’s warranty claims against GE fail for lack of privity in this maritime action.

4. Conclusion

In this case, the need for uniformity in maritime law, the absence of strong Texas state interests, and *East River*’s broad concern for preserving the integrity of contract law, preclude the application of general U.C.C. or Texas warranty law on privity in this case. Applying *East River* by analogy, this Court holds that Plaintiff Berge’s breach of express warranty and implied warranty of fitness claims are not legally viable.

III. MERITS OF WARRANTY CLAIMS

A. Affirmations

Even if *East River* did not bar Plaintiff Berge’s warranty claims, this Court concludes that Berge has not proved under Texas law its warranty claims by a

preponderance of the evidence.⁶¹ The Court concludes that GE did not breach any of the express warranties that may have existed and did not prove the compressors were unfit for the particular purpose for which they were provided, or that Berge in fact reasonably relied on any warranties made by GE. The Court also concludes that Berge has not proven by a preponderance of the evidence that Berge's claimed economic damages were proximately caused specifically by problems with GE's compressors. Thus, even applying Texas law as Berge requests, Berge has not met its burden of proof on these issues.

1. Express Warranties

An express warranty is created when “[a]ny affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.” TEX. BUS. & COM. CODE § 2.313(a)(1); *see also Am. Tobacco Co. v. Grinnell*, 951 S.W.2d 420, 436 (Tex. 1997) (citation omitted); *Lyda Constructors, Inc. v. Butler Mfg. Co.*, 103 S.W.3d 632, 637 (Tex. App.—San Antonio 2003, no pet.) (citations omitted); *Crosbyton Seed Co. v. Mechura Farms*, 875 S.W.2d 353, 361 (Tex. App.—Corpus Christi 1994, no pet.) (citation omitted). To recover for breach of express warranty, a plaintiff must prove, *inter alia*, that the defendant made an express affirmation of fact or promise. *See, e.g., Chilton Ins. Co. v. Pate & Pate Enters., Inc.*, 930 S.W.2d 877, 890-91 (Tex. App.—San Antonio 1996, writ denied); *Valley Datsun v. Martinez*, 578 S.W.2d 485, 490 (Tex. Civ. App.—Corpus Christi 1979, no writ). Determining whether a statement is an “affirmation of fact or promise” or is “mere puffing” or “opinion” is a fact-specific

⁶¹ The Court, as noted above, is unpersuaded that Texas law applies to this dispute. However, there is no other state within the United States whose law could apply, and the parties throughout this case have relied on Texas law. Thus, the Court merely assumes that Texas law applies for purposes of the alternative merits rulings that follow.

inquiry focused on whether the seller asserted a fact of which the buyer is ignorant or whether, in contrast, the seller made a statement regarding a matter about which the buyer may also have an opinion. *See, e.g., Valley Datsun*, 578 S.W.2d at 490. Courts generally consider several factors, including the specificity and frequency of the statement, as well as the comparative knowledge of the buyer and seller. *See U.S. Pipe & Foundry Co. v. City of Waco*, 108 S.W.2d 432, 436 (Tex. 1937); *GJP, Inc. v. Ghosh*, 251 S.W.3d 854, 889 (Tex. App.—Austin 2008, no pet.); *Helena Chem. Co. v. Wilkins*, 18 S.W.3d 744, 756 (Tex. App.—San Antonio 2000), *aff'd*, 47 S.W.3d 486 (Tex. 2001); *Valley Datsun*, 578 S.W.2d at 490.

Berge argues that GE made two sets of express warranties. Berge contends that GE made express warranties (a) during and immediately after the February 2004 Oslo meeting and (b) in the August 13, 2004 EZ Size Data Sheet, a one-page computer printout of information about the proposed compressors.

a. **February 2004 Statements**

According to Berge, the February 2004 warranties consisted of affirmations (1) that GE’s compressors could reliably provide 70 mmscfd of compressed gas at a specified design suction pressure and, thus, were suitable for Berge’s FPSO needs, (2) that the units were suitable for operation at 1200 rpm, (3) that all components of the compressor could tolerate 72,752 lbs. of pressure on the components when the compressors were in continuous operation, (4) that the compressors would be equipped with stainless steel piston rods, and (5) that the compressors would present “no problems” and be “problem-free” in operation. Berge urges that GE made statements (1) and (5) orally at the February 2004 Oslo meeting and statements (1), (2), (3), and (4) in writing via a promotional flyer and a February 9, 2004 EZ Size Data Sheet given to Berge within a few days after the Oslo meeting.

This Court finds the February 2004 statements regarding 70 mmscfd output, 1200 rpm, and 72,752 lb. rod load were made preliminarily, based on various assumptions and conditions of which the parties were aware and which later were unmet. These three statements therefore were too tentative to constitute affirmations of fact or promises for warranty purposes. The February 2004 Oslo gathering was a sales pitch meeting arranged by Aibel⁶² to introduce Flotech and GE personnel, their companies' capabilities, and a new product, the SHMB604 compressor, to Berge. At that time, the parties all believed and intended that the design parameters would include a suction pressure⁶³ of 174 psig.⁶⁴ Thereafter, in April and May 2004, during the design phase for the compressors and the compression module, Flotech told GE that the suction pressure had to be reduced from 174 psig to 133 psig, a very significant amount. GE stated that under those conditions, its SHMB604 compressor could not produce the 70 mmscfd requested. Flotech later raised the specified suction pressure to 144 psig. In response, GE informed Flotech that GE still could not reach the requested 70 mmscfd capacity at that suction pressure..⁶⁵

In February, 2004, all participants in the project also understood from the outset that the Chinguetti oil and gas field was totally undeveloped; no wells had even been attempted. Indeed, at this time, the participants were awaiting specific

⁶² See, e.g., PX 69; Kristiansen Test. – Day 2.

⁶³ Suction pressure is the same as inlet pressure and essentially refers to the pressure the compressor receives to suck the gas, and sometimes other residue seabed fluids, at the inlet into the first stage of the compressors. Svendsen Test. – Day 1, at 231.

⁶⁴ See, e.g., PX 83; PX 87.

⁶⁵ See, e.g., PX 125; PX 179A (July 2004 Order Acknowledgment with Data Sheet showing production of a total of 67 mmscfd at 144 psig); PX 195C (August 2004 Order Acknowledgement with Data Sheet showing production of a total of 70 mmscfd at 148 psig); DX 47; McDonald Test. – Day 14, at 134-35.

actual (as contrasted with merely projected) data on the seabed fluid's composition and pressures. More definite field data was not provided to GE until at least May 2004,⁶⁶ and even that was tentative. All were, in February 2004, relying on the Chinguetti "P50 profile," which showed 72 mmscfd as the approximate maximum gas production rate, with most predicted production falling well below that figure.⁶⁷ It is clear that all GE (and Flotech) estimates of compressor or compression module performance were necessarily conditioned upon receipt of more accurate data on the field's actual performance and conditions.

The Court also holds that GE's statements in the promotional flyer about including stainless steel piston rods in the compressors is not an "affirmation" for purposes of an express warranty. *See Chilton Ins.*, 930 S.W.2d at 890-91. The evidence establishes that GE originally planned to use stainless steel piston rods in its compressors for the BERGE HELENE,⁶⁸ but GE did not initially do so.⁶⁹ The law draws a distinction between a breach of warranty claim and a breach of contract claim. *See Brooks, Tarlton, Gilbert, Douglas & Kressler v. U.S. Fire Ins. Co.*, 832 F.2d 1358, 1374-75 (5th Cir. 1987); *Beauty Mfg. Solutions Corp. v. Ashland, Inc.*, No. 3:10-CV-2638-G, 2012 WL 253880, at *8 (N.D. Tex. Jan. 27, 2012); *Contractor's Source Inc. v. Hanes Cos., Inc.*, No. 09-CV-0069, 2009 WL 6443116, at *5-6 (S.D. Tex. Dec. 29, 2009) (Ellison, J.); *Lyda Constructors*, 103

⁶⁶ *See, e.g.*, PX 119 (HYSIS data).

⁶⁷ *See, e.g.*, DX 151, at 40 (Basis of Design); Payne Test. – Day 10, at 251-52; Landrum Test. – Day 11, at 187, 281. In the industry, a "P-50" production profile refers to an oil field operator's estimates of oil, water, and gas production expected from the field, with the "50" indicating a mere 50% probability that the production will reach the predicted levels. Overstad Test. – Day 7, at 71-72. The P50 production profile graph showed expected gas rates of 30-50 mmscfd. DX 151, at 40.

⁶⁸ *See, e.g.*, PX 87, at 7; PX 134A, at 2; PX 186.

⁶⁹ *E.g.*, PX 886, at 16.

S.W.3d at 637. Any alleged promise of stainless steel piston rods is a “contract term identify[ing] what is being sold,” and not a warranty “describ[ing] attributes, suitability for a particular purpose, and ownership of what is sold.” *Beauty Mfg.*, 2009 WL 6443116, at *7 (citation omitted); *Lyda Constructors*, 103 S.W.3d. at 637 (citation omitted); *Chilton Ins.*, 930 S.W.2d at 891 (citation omitted). Thus, no warranty claim lies for GE’s omission in this regard.

Berge also contends that GE’s representative stated that the compressors would be suitable for Plaintiff’s needs and have “no problems.” The evidence that GE representatives made these statements as promises of flawless operation of the compressors is unpersuasive. To the extent these “no problems” phrases were spoken, they more likely than not referred to the delivery of the equipment and are not actionable affirmations of fact regarding problem-free performance of the compressors or the M60 compression module throughout their operation, as Berge contends. The witnesses did not persuade the Court that these statements constituted anything more than sales promotion touting of GE’s skills and experience generally, essentially puffing, during a “get-to-know-you” meeting. The comments, to the extent made, were made at a time when field conditions were unknown, before any work had been done in the field, prior to the design of the compressors and the associated equipment, and under circumstances that all concerned knew were extremely tentative. These were not actionable warranties. *See Prudential Ins. Co. of Am. v. Jefferson Assocs., Ltd.*, 896 S.W.2d 156, 163 (Tex. 1995); *Dowling v. NADW Mktg., Inc.*, 631 S.W.2d 726, 729 (Tex. 1982) (citing *Gulf Oil Corp. v. Fed. Trade Comm’n*, 150 F.2d 106, 109 (5th Cir. 1945)); *Dinn & Hooking Bull Boatyard, Inc.*, No. C-08-309, 2010 WL 3909323, at *11 (S.D. Tex. 2010) (Rainey, J.).

b. **August 2004 Statements**

According to Berge, the August 2004 warranties consisted of certain specifications in the August 13, 2004 EZ Size Data Sheet created by GE and eventually provided to Berge by Flotech, through Aibel, as part of the compression module's final documentation. Specifically, Berge points to alleged affirmations (1) that the compressors could reliably provide 70 mmscfd at the design suction pressure (148 psig), (2) that the units were suitable for continuous operation at 1200 rpm, and (3) that all components of the compressor could tolerate 72,752 lb. "rod load" in continuous operation. GE's figures on the August 2004 Data Sheet supplied in August 2004 (unlike the figures in February 2004) were made after GE had received some additional information about the actual field conditions, although well before meaningful drilling or development of the field.

Generally, statements describing the specific capacity or performance capabilities of goods constitute affirmations for warranty purposes. *See, e.g., S-C Indus. v. Am. Hydroponics Sys., Inc.*, 468 F.2d 852, 854-55 (5th Cir. 1972) (applying Texas law and holding that a greenhouse plan specification stating "42' Rigid Steel Frame all bolt connections-20 PSF Snowload, 16 PSF Windload" constituted an express warranty that the greenhouse structure, as a unit, would withstand a vertical load of 20 pounds per square foot); *Cnty. Television Servs. v. Dresser Indus.*, 586 F.2d 637, 639-41 (8th Cir. 1978) (applying South Dakota law and holding that an advertising brochure statement that a broadcasting tower could withstand wind velocity and ice loads typical to that region constituted an express warranty). The Court will assume without definitively deciding that the requirement of an affirmation of fact or promise was met by the August 2004 Data Sheet's specifications that the compressors, when operating at 1200 rpm, would compress 70 mmscfd of gas and would withstand 72,752 lbs. of rod load. *See S-C Indus.*, 468 F.2d at 853-55.

These affirmations, however, were conditioned specifically on Flotech and/or Aibel's promises that there would be suction pressure of 148 psig. It is undisputed that, during the summer of 2004, GE refused to commit to providing 70 mmscfd at inlet pressures of 133 or 144 psig.⁷⁰ Only after Flotech promised to modify its packaging to provide suction pressure of 148 psig did GE commit to its compressors compression 70 mmscfd of gas and did GE issue an Order Acknowledgement containing these parameters.⁷¹ In addition, the evidence is clear that these affirmations concerning 70 mmscfd and the 72,752 lb. rod load at 1200 rpm also were conditioned on Flotech's properly packaging the GE compressors into the compression module and Aibel's proper installation and maintenance of the module.

2. **Implied Warranty of Fitness for a Particular Purpose**

“Where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller's skill or judgment to select or furnish suitable goods, there is unless excluded or modified under [TEX. BUS. & COM. CODE § 2.316] an implied warranty that the goods shall be fit for such purpose.” TEX. BUS. & COM. CODE § 2.315; *see also Am. Tobacco Co.*, 951 S.W.2d at 435; *LaBella v. Charlie Thomas, Inc.*, 942 S.W.2d 127, 131 (Tex. App.—Amarillo 1997, writ denied) (discussing implied warranties and disclaimers). To prevail in an action for breach of implied warranty of fitness for a particular purpose, the plaintiff must establish, *inter alia*, that the defendant knew or should have known the plaintiff was buying goods for a particular purpose. *See Crosbyton Seed*, 875 S.W.2d at 365-66. A “particular purpose” is a specific use by the buyer that is peculiar to the nature of the buyer's

⁷⁰ *See, e.g.*, McDonald Test. – Day 14, at 134-35.

⁷¹ *E.g.*, PX 195C; *see also* PX 172; McDonald Test. – Day 14, at 135-36.

business, and differs from an ordinary purpose, which is the purpose envisaged in the concept of merchantability and goes to the uses that are customarily made of the goods. TEX. BUS. & COM. CODE § 2.315 cmt. 2; *ASAI v. Vanco Insulation Abatement, Inc.*, 932 S.W.2d 118, 122 (Tex. App.—El Paso 1996, no writ) (citing *Crosbyton Seed*, 875 S.W.2d at 365) (other citation omitted).

The Court finds that GE generally knew that the three SHMB604 compressors were to be installed in a compression module aboard the BERGE HELENE for use in satisfying Berge's contractual duties to Woodside. GE did not know the terms of the Woodside-Berge contract but understood when it submitted the August 2004 Data Sheet that the compressors were expected to compress up to 70 mmscfd at 148 psig suction pressure.

The record also is clear, however, that all were aware that satisfying this particular purpose depended heavily on the actual field conditions being similar to the P50 predictions for quantities and quality of oil, gas, and water being extracted. Significantly, achievement of Berge's particular purpose also depended upon proper assembly, installation, and maintenance by Flotech, Aibel, and/or Berge of the M60 compression module, and the FPSO's other critical topside components.

3. Failure to Comply with Affirmation and Lack of Fitness for Particular Purpose

To recover for breach of express warranty, a plaintiff must also prove that the goods failed to comply with the affirmation. *See* TEX. BUS. & COM. CODE § 2.313; *Am. Tobacco Co.*, 951 S.W.2d at 436; *Lyda Constructors*, 103 S.W.3d at 637; *Crosbyton Seed*, 875 S.W.2d at 361. To recover for breach of implied warranty of fitness for a particular purpose, a plaintiff must prove that the goods in fact were not fit for plaintiff's particular purpose. *See Am. Tobacco Co.*, 951 S.W.2d at 435; *Crosbyton Seed*, 875 S.W.2d at 361. For reasons explained in more

detail below, the evidence does not persuade the Court that Berge has proved these matters.

B. Basis of the Bargain and Reliance

A plaintiff pursuing an express warranty claim must prove that the affirmation of fact became a part of the basis of the bargain.⁷² TEX. BUS. & COM. CODE § 2.313(a) (1); *Compaq Computer Corp. v. Lapray*, 135 S.W.3d 657, 676 (Tex. 2004) (quoting *Henry Schein, Inc. v. Strobe*, 102 S.W.3d 675, 686 (Tex. 2002)); *American Tobacco Co. v. Grinnell*, 951 S.W.2d 420, 436 (Tex. 1997). A plaintiff pursuing an implied warranty of fitness for a particular purpose must prove that it relied on the defendant’s skill or judgment to select or furnish the suitable goods. TEX. BUS. & COM. CODE § 2.315.

Berge argues that in reliance on the express warranties: (1) Berge notified Woodside that it had decided to purchase from Aibel a GE-based gas compression module; (2) a contract was entered into on May 29, 2004, between Berge, as owner of the BERGE HELENE, and Woodside, which required the BERGE HELENE to provide 70 mmscfd of compression and operate at 1,200 rpm without overload; and (3) Berge entered into a contract with Aibel on June 24, 2004, for supply of the

⁷² The Court again assumes without ruling that Texas law applies.

Although some cases list “basis of bargain” and “reliance” as separate elements, other courts blend them together because of their conceptual overlap. *See PPG Indus., Inc. v. JMB/Houston Ctrs. Partners Ltd. P’ship*, 146 S.W.3d 79, 99 (Tex. 2004) (“The basis-of-the bargain requirement ‘loosely reflects the common-law express warranty requirement of reliance’” (quoting *Am. Tobacco Co., Inc. v. Grinnell*, 951 S.W.2d 420, 436–37 (Tex.1997))); *Compaq Computer Corp. v. Lapray*, 135 S.W.3d 657, 675–77 (Tex. 2004) (noting varied interpretations of the level of reliance required by the “basis of bargain” element); *Indust-Ri-Chem Lab., Inc. v. Par-Pak Co.*, 602 S.W.2d 282, 293-94 (Tex. Civ. App.—Dallas 1980, no writ) (noting that in some instances, a jury instruction on lack of reliance may be germane to the “basis of the bargain” issue; “the weight of authority does not require reliance as an element to recover on an express warranty” (citation omitted)).

M60 gas compression module (with GE's compressors) and other equipment to be installed topside aboard the BERGE HELENE. Berge also argues, in connection with its claim for implied warranty of fitness for a particular purpose, that it relied heavily on GE's skill and knowledge to provide the appropriate compressor selection and to inform Berge if the product was not suitable. GE counters that Berge could not rely on the 72,752 lb. rod load figure on the February or August 2004 Data Sheets because none of Berge's representatives understood their meaning. In the alternative, GE argues that reliance does not exist or is unreasonable where a buyer enjoys skill or knowledge equal to that of the seller and includes its own detailed specifications for the product in the contract.

The Court finds that Berge has not proven that it relied on GE's express affirmations of a maximum rod load of 72,752 lbs. or that the compressors would be able to operate continuously at 1200 rpm. There is no indication that Berge's representatives engaged in a detailed analysis of GE's compressors' specifications that there would be a maximum rod load of 72,752 lbs. and continuous operation at 1200 rpm—indeed, there is no evidence that Berge's representatives even reviewed or considered these specifications in the Data Sheets at all. Thus, Berge has not shown by a preponderance of the evidence that it reasonably relied on GE's affirmations of a maximum rod load of 72,752 lbs. or that the compressors would be able to operate continuously at 1200 rpm as warranties *per se*.

Similarly, there is no evidence that Berge bargained for or expressly asked GE for compressors with any particular rod load or rpm capabilities. Had Berge wanted to ensure a particular maximum rod load or rpms, in and of themselves, Berge could and should have sought an agreement on these matters directly from GE. Berge did not do so.

Regarding the express warranty of 70 mmscfd or the implied warranty of suitability of the compressors for Berge's FPSO, the weight of the evidence

establishes that Berge relied on Aibel, a company with which Berge had worked previously, for judgment on the selection of the compression module's components.⁷³ Berge also relied on Aibel's skills in installation and operation of all the topside equipment, including the compression module. Even before the Oslo meeting in February 2004, there is evidence that Woodside had informed Berge that Woodside "wanted to have one supplier of process plants"—*i.e.*, Woodside preferred Aibel as the compression module supplier because Aibel had been selected to supply other topside modules.⁷⁴ Aibel also set up the February 2004 Oslo meeting and advocated for the Aibel-Flotech-GE trio.⁷⁵ Berge had no direct communications with GE outside the February 2004 meeting during the period the compressors and compression module were designed, packaged, and installed.

In any event, Berge's reliance on GE's specifications as a guarantee of capacity was not reasonable. Representatives of both Berge and its FPSO topside equipment expert, Aibel, were aware during the bid and design phases that the SHMB604 model was a prototype and had never previously been operated in the field.⁷⁶ Berge was and is a sophisticated party in the marine oil and gas industry

⁷³ Berge and Aibel also had a pre-existing contract from August 2001 by which Berge selected Aibel to manage, operate, and maintain the FPSO. DX 3.

⁷⁴ *E.g.*, Svendsen Test. – Day 1, at 189.

⁷⁵ *E.g.*, PX 37; PX 50; DX 3; DX 18; DX 548; DX 858; Svendsen Test. – Day 1, at 189-90, 192-93; Normann Test. – Day 2, at 78-79; Kristiansen Test. – Day 2, at 134, 169-70, 179-83; Vogt Test. – Day 4, at 29; Buaroy Test. – Day 6, at 102-04.

⁷⁶ *See* Karlsen Test. (Depo.) – Day 1, 255, 286, 311; Jacobsen Test. – Day 5, at 152; Plaintiff Opening Statement – Day 1, at 18.

with extensive experience operating FPSOs prior to the BERGE HELENE⁷⁷; these FPSOs typically included gas compression modules.

Neither Berge nor GE nor any of the other parties had assurances of GE's compressor design when Berge entered into the Woodside contract in late May 2004. At that time, no actionable promises or affirmations by GE had been made. The February 2004 Data Sheet was obviously tentative, as the parties were relying on a preliminary P50 analysis of the totally unexplored Chinguetti field at the time.⁷⁸ No one knew the actual field conditions. As of date of the August 2004 Data Sheet, the document with arguably actionable express warranties and the basis for Berge's implied warranty of fitness for a particular purpose claim, the complex M60 module design had not yet been finalized or tested. GE's representations thus could not have been a reasonable basis for the contract with Woodside or a reasonable ground for reliance.

Also, during negotiations and as late as Summer 2004, because of new field information and newly predicted lower suction pressures, Flotech (and GE) recommended the use of the larger, slightly more expensive F-606 compressor model to enable Berge comfortably to meet the requirement of 70 mmscfd at 133 psig.⁷⁹ Berge and Aibel declined to follow this advice even though they were aware that the SHMB604 compressors had little "headroom" and would likely need to operate at their maximum with few, if any, breaks to have a chance of

⁷⁷ See, e.g., Svendsen Test. – Day 1, at 118-23; Normann Test. – Day 2, at 122, 168-70.

⁷⁸ As explained previously, a "P-50" production profile refers to an oil field operator's estimates of the oil, water, and gas production expected from the field, with the "50" indicating a 50% probability that the production will reach the predicted levels. Overstad Test. – Day 7, at 71-72.

⁷⁹ See PX 125; Normann Test. – Day 2, at 66-67.

reaching the 70 mmscfd goal.⁸⁰ Berge also elected not to purchase a spare compressor, thereby knowingly taking the risk that when one of the three compressors in the M60 module was offline for maintenance or any other reason, the requisite flow capacity could not be reached.⁸¹

Berge accordingly has not met its burden of proving by a preponderance of the evidence that it reasonably relied on GE's February or August 2004 Data Sheets as warranties of performance on the capacity of the compressors or that those representations were a basis for Berge's bargain.⁸²

C. Causation

Additionally, to recover on a warranty claim, Berge must prove by a preponderance of the evidence that GE's alleged breaches of actionable warranties were a substantial cause of Plaintiff's financial damages. The parties have briefed only Texas law governing causation in this breach of warranty case, and the Court assumes without deciding that Texas law applies, as Berge contends. After consideration of the evidence from trial, the Court is unpersuaded Berge has met its burden to show by a preponderance of the evidence that GE's conduct was a proximate cause of the damages sought. There were many significant contributing causes of the innumerable problems experienced by the M60 compression module.

1. Base Day Rates

⁸⁰ DX 120, at 10; McKee Test. – Day 9, at 139; Broadbent Test. – Day 12, at 354-55.

⁸¹ *See, e.g.*, Normann Test. – Day 2, at 58-58, 64-66; Kristiansen Test. – Day 2, at 171-72; Buaroy Test. – Day 6, at 24; Tolk Test. (Depo.) – Day 13, at 179-81.

⁸² Notably, as discussed elsewhere, Berge had no direct bargain with GE; rather, Berge had an agreement with Aibel, who contracted with Flotech who contracted with GE.

Berge seeks damages of \$17,710,486 for lost BDR. Under Berge's contract with Woodside, Woodside was permitted to reduce the BDR paid to Berge if the compression module produced less than 90% of Woodside's requirement each day. The Court assumes that Berge's BDR claim is for consequential damages.⁸³ See TEX. BUS. & COM. CODE § 2.715(b) ("Consequential damages . . . include any loss resulting from the general or particular requirements and needs of which the seller at the time of contracting had reason to know and which could not reasonably be prevented by cover or otherwise"); *Polaris Indus., Inc. v. McDonald*, 119 S.W.3d 331, 336-37 (Tex. App.—Tyler 2003, no pet.).

To obtain consequential damages for breach of express or implied warranties, a plaintiff must prove that defendant's breach of warranty was a proximate cause of the plaintiff's injury. See TEX. BUS. & COM. CODE § 2.715; *Hyundai Motor Co. v. Rodriguez*, 995 S.W.2d 661, 667 (Tex. 1999) (citing *Signal Oil & Gas Co. v. Universal Oil Prods.*, 572 S.W.2d 320, 328 (Tex. 1978)); *Crosbyton Seed Co. v. Mechura Farms*, 875 S.W.2d 353, 361 (Tex. App.—Corpus Christi 1994, no writ); *General Supply & Equip. Co. v. Phillips*, 490 S.W.2d 913, 917 (Tex. Civ. App.—Tyler 1972, writ ref'd n.r.e.); see also *Otis Spunkmeyer, Inc. v. Blakely*, 30 S.W.3d 678, 683-84 (Tex. App.—Dallas 2000, no pet.). Proximate cause consists of both cause in fact and foreseeability. *Travis v. City of Mesquite*, 830 S.W.2d 94, 98 (Tex. 1992) (citation omitted)). "Cause in fact" requires that the defendant's conduct or product be "a substantial factor" in bringing about the injury which would not otherwise have occurred. *Mack Trucks, Inc. v. Tamez*, 206 S.W.3d 572, 582 (Tex. 2006) (citation omitted); *Mott v. Red's Safe & Lock Servs.*,

⁸³ The parties dispute whether BDR was profit or recoupment of investment costs. According to Berge, the BDR includes "a profit component but are largely compensation for Plaintiff's capital expenses, incurred in putting a large facility . . . at the disposal of its customer." Pl. Mem. Law [Doc. # 293], at 23.

Inc., 249 S.W.3d 90, 99 (Tex. App.—Houston [1st Dist.] 2007, no pet.) (citation omitted); *Paragon General Contractors, Inc. v. Larco Constr., Inc.*, 227 S.W.3d 876, 887 (Tex. App.—Dallas 2007, no pet.) (citations omitted). Under the Texas U.C.C., there is no requirement that a buyer and seller “tacitly agree” that the seller be liable for consequential damages, though an aggrieved buyer must attempt to minimize its damages in good faith. *See* TEX. BUS. & COM. CODE § 2.715 cmt. 2.⁸⁴

Berge contends that it should prevail because the SHMB604 compressors in the M60 module broke down allegedly from compressor overload more than 180 times, starting in early 2006, until Berge and Woodside agreed to shut the system down for a thorough evaluation beginning in early November 2006. Significantly, however, Berge has not presented persuasive proof that the compressors in the modules actually were operating above their permissible rod load and thus were “overloaded” compared to the data sheet figures. At trial, the parties focused on the meaning of the specifications “R/L TENSION: 72,752” and “R/L COMPR[SSION]: 72,752” listed at the top of the August 2004 Data Sheet for compressor. Berge argues that these figures are a compressor’s “maximum rod load” and should always be set with reference to what all the components of the compressor, including its running gear,⁸⁵ can bear. Berge contends that the SHMB604’s maximum rod load set with reference to its running gear is approximately 60,000 lbs. in compression and 50,000 lbs. in tension.⁸⁶ Berge’s

⁸⁴ The “tacit agreement test” effectively required “the plaintiff to prove that the parties had specifically contemplated that consequential damages might result and that the defendant actually assumed the risk of such damages.” 1 WHITE & SUMMERS § 10-4.

⁸⁵ The running gear comprises the moving parts inside the compressor and includes generally the weakest of the compressor’s parts. These thus often can bear loads lower than the stationary parts, such as the frame, of the compressor.

⁸⁶ *See, e.g.*, PX 11; PX 212, at 2.

theory is that because 50,000/60,000 lbs. is the actual “maximum rod load” for the SHMB604 and the machines were sold as having 72,752 lb. “maximum rod load,” the SHMB604s were overloaded when operating on the BERGE HELENE. According to GE, on the other hand, the 72,752 figures at the top of the August 2004 Data Sheet are the “maximum frame load” that the compressor’s stationary parts⁸⁷ can bear and that, in any event, the compressors could withstand the full 72,752 lb. loads on the running gear as well as the frames and were not overloaded in operation. GE argues that API 11 standard permits manufacturers to publish the “maximum frame load” as the “maximum rod load.”

The evidence demonstrates that there are significant differences within the compressor industry regarding the meaning and use of the terms “rod load” and “gas rod load.” There is wide variation as to what these terms mean within different companies and among potential purchasers and users.⁸⁸ There are also distinctions in how the terms are used in various API standards, reference books, and articles.⁸⁹ Significantly, the API 11 standard does not prohibit manufacturers from using the “maximum frame load” as the “maximum rod load” figure at the

⁸⁷ The stationary gear is generally the strongest part on a compressor and thus can bear the greatest loads.

⁸⁸ Not only do different companies appear to use the term “rod load” to describe different types of loads, including “frame load,” but also the employees within GE did not have a uniform understanding of the term. *See and compare* Drews Test. – Day 4, at 281-84; McKee Test. – Day 8-9, Bassani Test. – Day 13, Sandquist Test. – Day 11, McDonald Test. – Day 14-15.

⁸⁹ *See, e.g.*, PX 3 (API 11 Standards); PX 7 (Book on Reciprocating Compressors); PX 1098 (Gajjar article). Most significantly, the API 11 standard that governs the compressors at issue appears to let manufacturers to determine how the maximum rod load can be set: “The maximum allowable operating rod load (*manufacturer’s* published rating calculated by *manufacturer’s standard methods*) is the highest force that a manufacturer will permit for continuous operation.” PX 3, at 7 (emphasis added).

top of a data sheet.⁹⁰ Nor does the API 11 standard require the maximum rod load be set with reference to what the running gear of the compressor can withstand.

In any event, the dispositive issue is whether the compressors were actually overloaded, not merely whether the parties agree on the meaning of the term “rod load.” At trial, Berge offered no empirical or direct evidence of the actual loads experienced by the BERGE HELENE compressors during the relevant damages period or otherwise. No scientific testing was performed. Berge instead relies on the fact that the compressors experienced numerous breakdowns and the testimony of Philip Tolk, a Shell Global Solutions International employee retained by Woodside as a consultant who late in 2006 reviewed the design and operation of the compressors and the compression module.⁹¹ Other evidence at trial established persuasively, however, that certain GE employees’ and Tolk’s December 2006 estimates of overload were incorrect because they were based on erroneous seminal information. Specifically, it was persuasively demonstrated that the assessments were based both on wrong valve data supplied by a third party valve expert, Hoerbiger Corporation of America (“Hoerbiger”), and wrong application limits. The limits Tolk applied did not reflect a senior GE Italian engineer’s express authorization of higher application limits for the SHMB604 compressors during design.⁹² When GE’s Italian engineers recalculated the load limits in January 2007 using the correct load limits and valve data, they determined that the first and third stage loads in the compressors were below the Italian engineers’ approved application limits which were based on complex computer modeling and reliable analysis. The second stage load on the compressors was a little above the

⁹⁰ See, e.g., PX 3; PX 732.

⁹¹ PX 640, at 2; PX 679; PX 681.

⁹² See, e.g., PX 688 (noting certain increased limits approved by Franco Graziani).

approved application limit,⁹³ but was still well below the design's hard limit and was a long way from a risk of failure. The Court credits GE witnesses Simone Bassani, Simone Pratesi, and Brian McDonald's testimony that even if the compressors operated near the application limits, the compressors were nowhere near the failure limits. Tolk's and others' good faith conclusions based on incorrect information are insufficient evidence to the contrary.⁹⁴

Berge also contends that the failures were due to destructive pulsations and possibly vibrations caused by the flawed designs of the compressors.⁹⁵ Berge has produced evidence that pulsations existed and that a changed cylinder diameter in the compressor could have reduced pulsation levels.⁹⁶ There also was substantial persuasive evidence, however, that unexpected liquid, internal slugging, and water droplets in the compressors caused by especially difficult field conditions and lack of proper functioning of equipment and piping surrounding the compressors were significant contributors to the breakdowns that Berge attributes to pulsations or vibrations.⁹⁷

The Court finds further that design, assembly, installation errors, and other conduct by Flotech, Aibel, and Berge played material roles leading to many of the M60 compression module stops and therefore much, if not all, of Berge's claimed lost BDR. First, for cost reasons, Berge did not purchase a larger model or a spare compressor to avoid or replace capacity during expected—and unexpected—

⁹³ Pratesi Test. – Day 16.

⁹⁴ See also PX 681.

⁹⁵ E.g., McKee Test. – Day 9.

⁹⁶ See PX 783; PX 789.

⁹⁷ See, e.g., PX 162, at 13; PX 860. Pulsation studies of GE's compressors in another project (Olowi) are not persuasive to explain the Chinguetti compressors' problems.

compressor downtimes. Reciprocating compressors are usually spared due to their greater need for maintenance, especially where the processing plant is new.⁹⁸

Second, Berge also elected not to conduct a debottlenecking study as proposed by Aibel in May 2006. This study would have enabled the parties to determine how much gas could be handled by the equipment surrounding the compressors—such as the inlet heaters, the first stage and second stage separators, the pressure control valves on the separators, the piping, the measurement instrumentation, and the flare systems—equipment for which Flotech and/or Aibel, not GE, were responsible.⁹⁹ Such studies are usually conducted to identify equipment limitations that would prevent capacity from being achieved.¹⁰⁰ Other

⁹⁸ See, e.g., Tolk Test. – Day 13, at 179-81 (Depo.) (noting that reciprocating compressors are spared at 2 x 100% or 3 x 50%). Berge knew it was installing a new processing module, but decided not to obtain a spare and instead chose a 3 x 33% compressor package. See PX 37, at 15; Tolk Test. – Day 13, at 181; see also Normann Test. – Day 2, at 58, 64-66; Kristiansen Test. – Day 2, at 171-72; Buaroy Test. – Day 6, at 24. Berge argues that sparing would not have allowed it to meet its compression requirements because multiple compressors were down simultaneously during 2006, and all three were down from November 2006 through February 2007. While some of the stops may have occurred even with a fourth compressor, a backup could have allowed Berge to meet its compression requirements much of the time before the shutdown. Further, a spare could have allowed rotation of the compressors and other testing. Finally, whether the parties would have decided to shut down the entire compression module for four months starting in November 2006 if a spare been available is not a matter of record.

⁹⁹ Aibel produced—at the request of Woodside—a proposal for a debottlenecking study to determine “the feasibility of operating the Chinguetti process installation at higher produced gas rate than design [sic].” PX 372, at 6.

¹⁰⁰ See, e.g., Landrum Test. – Day 11, at 177. The first part of the debottlenecking study sought to determine the maximum production that could be processed through the existing installation, given “compression and gas treatment flow rate” that would “not be changed from the design rate of 70 mmscfd,” PX 372, at 8, and would have determined whether non-GE equipment could handle the design rate of 70 mmscfd. See Landrum Test. – Day 11, at 246. While, as Berge argues, gas production dropped off precipitously after early May 2006 in the days after the study proposal was prepared, the gas volumes
(continued . . .)

participants were concerned that other topside equipment was inappropriately sized for the actual seabed fluids being extracted. That other participants sought a debottlenecking study is strong indication that there were serious concerns about significant limitations in the non-GE equipment surrounding the compressors, and undermines Berge's suggestion that inadequacies of the GE compressors' performance in the field (compared to the Data Sheets) were a serious cause of the stoppages.

Further, one of the major stops for which Berge seeks damages is a 65-day stoppage from May 8, 2006 to August 12, 2006,¹⁰¹ which in material part involved an adapter plate separation and damage to surrounding equipment on the third stage of Compressor B. The record contains widely conflicting and complex technical evidence on the causes of this stop. The Court finds that GE's design was not ideal, and later was improved, but the adapter plate design had worked for years in similar GE compressors and was only questionably a reason for the lengthy stop. The Court is persuaded that the independent conduct of Berge, Aibel, and/or Flotech contributed significantly to this stop. Fundamentally, there was a material misalignment of the cylinder distance piece and lack of cylinder head end support when the cylinder was installed, an error in a task not performed or controllable by GE.¹⁰² Also, this stop occurred shortly after the gas volumes

spiked again from mid-July to mid-August and from mid-September to the November 2006 shutdown, which falls within the relevant damages period. The proposal also noted that the gas produced at Chinguetti showed a higher gas-oil ratio than expected, which meant that if Woodside wanted to produce oil at the initial maximum oil rate, the compressors and surrounding equipment would need to process substantially more gas than was contemplated in the P50 production profile.

¹⁰¹ PX 1117.

¹⁰² See PX 409; DX 188; DX 798.

(continued . . .)

escalated dramatically and the gas–oil ratio (GOR) was triple what was projected and designed for.¹⁰³

The Court finds further that Flotech, Aibel, and/or Berge were also substantially responsible for other major stops. For instance, one stop resulted from undertorquing of bolts and likely caused a piston rod failure in the second stage of Compressor B. Berge contends that this undertorque error¹⁰⁴ was due to a confusing description in GE’s product manual that was delivered with the vessel. The Court is unpersuaded that this aspect of the manual, although not a model of clarity in this respect, was a significant cause of the stop. Three months earlier, GE emailed specific instructions to the vessel for Berge or Aibel employees’ use regarding the proper torque values in both United States and European metrics. The vessel employees had plenty of opportunity to seek further guidance, had they desired.¹⁰⁵ Evidence also shows that Berge, Aibel, and/or Flotech contributed to the undertorquing problems because the employees lacked the proper torque wrench for the installation and attempted the installation without it.¹⁰⁶

Flotech acknowledged misalignment of the discharge bottle and the cylinder head on the third stage. *See* DX 186, at 6-7; DX 190; *see also* PX 458; PX 474, at 4; PX 558, at 10; PX 558, at 10. The Court rejects Berge’s contention that this report is fraudulent because certain conclusions in it differ from the expert’s initial draft. The provision to the client by a specialized expert of his draft report for checking factual accuracy is acceptable practice. Moreover, the expert’s use of a form, including a signature line, in his draft does not alter this finding.

¹⁰³ *See, e.g.*, DX 981B; DX 981C.

¹⁰⁴ PX 535, at 2.

¹⁰⁵ *See, e.g.*, DX 869; PX 477, at 2; PX 554, at 2; PX 811; DX 412; DX 869; *see also* PX 535; PX 571; DX 225, at 5, 7; DX 729; DX 804, at 219; Bergh Test. – Day 4, at 237, Landrum Test. – Day 11, at 212; Sarshar Test. – Day 15, at 217-30; Pratesi Test. – Day 16, at 54-56.

¹⁰⁶ *See* PX 629; PX 811, at 7, 17.

In another example, a stop, this time of Compressor C in September, 2006, was caused by problems in the coalescers, a crucial part of the M60 module packaged by Flotech, and not a part of the compressors provided by GE. This issue was also an important contributing factor for the four-month shutdown starting in November 2006.¹⁰⁷ Various parties' investigations over time revealed that the coalescer filters were missing or blown apart.¹⁰⁸ Moreover, bits of the coalescer filter were found beyond the coalescer in harmful locations near the suction or discharge bottles, thereby partially blocking the gas passageway.¹⁰⁹ The breakdown and problems with coalescers also likely allowed liquids and/or particulates into the compressors, a dangerous circumstance that led to one or more piston rod failures.¹¹⁰ Piston rod breaks occurred more often at night¹¹¹ when there were temperature drops that likely caused condensate (*i.e.*, liquid) to enter piping (for which GE was not responsible) and thereafter enter the 3rd stage cylinder.¹¹² Notably, coalescer problems played a substantial role in Berge's November 2006 decision to shut down the compressors for several months, a substantial cause of Berge's damages.¹¹³

¹⁰⁷ See, e.g., PX 186, at 4-5; Landrum Test. – Day 11, at 216.

¹⁰⁸ See, e.g., DX 247, at 2; DX 299, at 7; DX 675, at 16; DX 854.

¹⁰⁹ See also DX 247, at 2; DX 675, at 16.

¹¹⁰ See, e.g., PX 554, at 51; PX 586; PX 811, at 5, 24; see also DX 186, at 4-5

It is noted that GE designed the pistons, which are relatively inexpensive compressor components, to break at a particular spot when the compressors were under excessive stress so that more dangerous or expensive failures in the compressors would not occur. Thus, the piston design was a type of fail-safe.

¹¹¹ See, e.g., PX 785, at 1.

¹¹² See, e.g., PX 619, at 10; PX 785, at 1.

¹¹³ See PX 592; PX 593; DX 270, at 1-2; McKee – Day 9; Landrum – Day 11.

Over and above these issues, there is evidence that that debris and other foreign material in the gas stream,¹¹⁴ overheated lube oil,¹¹⁵ and inadequate vent and drain designs,¹¹⁶ also contributed to various stops. These are all matters for which Flotech, Aibel, and/or Berge, not GE, were responsible.

Additionally, there are indications that the suction pressure at the compressor inlets was materially lower than necessary for GE's design and lower than promised by Flotech from time to time during operations, either unexpectedly or because Woodside wanted to boost oil production and other equipment required lower suction pressure.¹¹⁷

The Court does not find that GE's design and manufacture were ideal. Rather, the evidence shows that both GE Houston and GE's Italian affiliate were not always communicating effectively during design of the SHMB604 phase. There were issues regarding the exact load limits,¹¹⁸ errors in valve selection,¹¹⁹ certain internal compressor packing materials,¹²⁰ and certain bolts.¹²¹ In light of the entire record, however, the Court concludes that the evidence does not preponderate in favor of Berge's theory that failure of any GE express or implied warranties regarding the SHMB604 compressors within the complex M60 compression module were a substantial cause, and thus a proximate cause, of

¹¹⁴ DX 144, at 3; DX 412.

¹¹⁵ PX 429 (6/16/06 Baker Email noting semi-liquid "snot" in stage 3); Landrum Test. – Day 11; Baker Test. – Day 12.

¹¹⁶ *See, e.g.*, PX 438; DX 412; DX 726; DX 966.

¹¹⁷ *See, e.g.*, DX 298.

¹¹⁸ *See, e.g.*, PX 150.

¹¹⁹ *See, e.g.*, PX 387; PX 392; PX 401; PX 412A; PX 428.

¹²⁰ *See, e.g.*, PX 81; PX 613, at 15; PX 781, at 2; DX 412.

¹²¹ *See, e.g.*, PX 402; DX 797.

Berge's claimed lost BDR.¹²² Many other factors were seminal causes of the stops: Choices made by Berge to essentially "fast track" the project and to save money; inadequacies in performance of the other participants; and dramatically changed and unexpectedly difficult field conditions¹²³ that resulted in instances of liquids in the compressors, varying suction pressures, and excessive amounts of gas forced through the system outside the GE's compressors' design parameters all undermine Berge's contentions that the stops and claimed damages were the substantial fault of GE.¹²⁴

¹²² Berge also argues that the piston rod breaks were due to GE's failure to use stainless steel piston rods which resulted in "corrosion pits" on the rods. As discussed in Part III.A.I, *supra*, any statements by GE about stainless steel rods were not "affirmations" for purposes of an express warranty. Even if the statements were affirmations, the issue is whether GE's failure to use stainless steel for the rods was a substantial cause of stops or whether there were other primary causes for the stresses on the rods that resulted in the stops complained of. While stainless steel is more resistant than the 4140 alloy steel used by GE to make the rods originally, there was a significant dispute about the cause of the chlorine corrosion. *See, e.g.*, PX 380; PX 387; PX 583; PX 586; PX 679; Watson Depo., at 156-59; Casey Test. – Day 8. Indeed, Berge's metallurgic expert, Casey, was unable to predict if stainless steel rods would have been materially more resistant to fatigue stress or would have withstood the stresses in this environment. *See* Casey Test. – Day 8; PX 1170.

¹²³ *See, e.g.*, PX 372. There also appears to have been more water or other liquids in the gas from the seabed than was typical, although evidence on this point is unclear. *See* PX 599.

¹²⁴ Even if the Court were able to find that GE's design or manufacture was a substantial cause of Berge's lost BDR under Texas law, Berge's alleged damages would have to be reduced by *at least* 70% due to the actions of Berge, Aibel, and Flotech. *See Signal Oil*, 572 S.W.2d at 329 ("[W]here both the unsuitable product and the buyer's negligence are found to be proximate causes of the damage, an additional determination must be made by the trier of fact: that being the respective percentages (totaling 100 percent) by which the concurring causes contributed to the consequential damages."); *Indust-Ri-Chem Lab., Inc. v. Par-Pak Co., Inc.*, 602 S.W.2d 282, 290 (Tex. Civ. App.—Dallas 1980, no writ); *see also Exxon Co., U.S.A. v. Sofec, Inc.*, 517 U.S. 830, 832 (1996) (holding that the Supreme Court "abandoned the 'divided damages' rule previously applied to claims in admiralty for property damages, and adopted the comparative fault (continued . . .)

2. Lost Capacity Damages

Berge also seeks \$23,649,185 in damages for the purchase, transportation, and installation of a supplemental compressor.¹²⁵ According to Berge, the current compressors cannot safely produce more than 54 mmscfd of compression in total, and Plaintiff thus is entitled to the replacement cost of obtaining another compressor to supplement the existing compression module to supply the full bargained-for capacity of 70 mmscfd, as well as the reasonable and foreseeable costs associated with transporting and installing the replacement equipment to the FPSO. The Court disagrees. The evidence demonstrates that by November 2006, Woodside had requested that the suction pressure for the compressors be set very low, around 7.5 bara, to facilitate greater oil flow and production.¹²⁶ This suction

principle for allocating damages among parties responsible for an injury” (citation omitted); *United States v. Reliable Transfer Co., Inc.*, 421 U.S. 397, 411 (1975) (“[W]hen two or more parties have contributed by their fault to cause property damage in a maritime collision or stranding, liability for such damage is to be allocated among the parties proportionately to the comparative degree of their fault, and that liability for such damages is to be allocated equally only when the parties are equally at fault or when it is not possible fairly to measure the comparative degree of their fault.”). If superseding cause can break the causal chain in this case, we note that the Supreme Court has held that when a plaintiff in admiralty is the superseding and sole proximate cause of its own injury, the plaintiff cannot recover “part of its damages from tortfeasors or contracting partners whose blameworthy acts or breaches were cases in fact of the plaintiff’s injury.” *Exxon Co.*, 517 U.S. at 839-40.

Furthermore, the Court takes issue with other aspects of Berge’s calculations of damages. Given the above, however, there is no need to address these matters in any detail.

¹²⁵ See Pl. Mem. Law [Doc. # 293], at 27.

¹²⁶ Approximately 10.2 barg, or 11.2 bara, are required to reach a suction pressure of 148 psig.

pressure is below any putative GE express or implied fitness warranties conditions.¹²⁷

There is also no evidence that Berge in fact currently requires 70 mmscfd of gas compression to satisfy its contractual obligations to Woodside or any future contracts proven at trial to exist. Berge was able to renegotiate the Woodside contract compression volume requirements.¹²⁸

Further, there is no evidence that \$23,649,185 is the difference, at the time and place of Berge's acceptance in 2004 or 2006, between the value of the compressors as accepted and the value they would have had if they had been as warranted. *See* TEX. BUS. & COM. CODE § 2.714(b) (providing the general measure of damages for breach of warranty). Nor is there evidence of the value of any reduction in the FPSO's resale value. *See* TEX. BUS. & COM. CODE § 2.715.

3. Conclusion

Berge has not proven by a preponderance of the evidence its claim against GE for recovery of the lost BDR due to GE's compressor design and manufacturing flaws and to GE's faulty instruction manual.

IV. FRAUD BY OMISSION

Berge also seeks recovery on a fraud by omission theory. Berge alleges two omissions. The first focuses on April 30, 2004, when GE Houston engineers allegedly became aware of the falsity of the representations about the compressors having a gas rod load tolerance of 72,752 lbs. in both tension and compression and failed to advise Plaintiff of the falsity of that representation.¹²⁹ The second alleged omission focuses on June 9, 2004, when GE's Italian engineers informed GE

¹²⁷ *See, e.g.*, DX 302; DX 676; DX 731.

¹²⁸ *See, e.g.*, PX 894.

¹²⁹ PX 112A.

American sales personnel that the SHMB604 was “NOT suitable” for service due to issues of “overload.” PX 140. Berge alleges that although GE assigned new “maximum ‘gas-plus-inertia’ load figures for the model of roughly 50,000 in tension and 60,000 in compression,” GE failed to change the gas rod load figures for the Chinguetti project, which remained at 72,752 lbs. in tension and compression.

Plaintiff asserts its fraud by omission claims under the Court’s maritime, diversity, and supplemental jurisdiction. Regardless which jurisdiction is invoked, maritime law generally applies if the alleged tort is a maritime tort. *See Pope & Talbot v. Hawn*, 346 U.S. 406, 411 (1953) (citing *Seas Shipping Co. v. Sieracki*, 328 U.S. 85, 88-89 (1946)), *superseded by statute*, Longshore and Harbor Workers’ Compensation Act of 1972, Pub. L. 92-576, 86 Stat. 1263; *Keefe v. Bahama Cruise Line, Inc.*, 867 F.2d 1318, 1320-21 (11th Cir. 1989); *Ali v. Offshore Co.*, 753 F.2d 1327, 1332 (5th Cir. 1985), *overruled on other grounds by In re Air Crash Disaster Near New Orleans, La.*, 821 F.2d 1147 (5th Cir. 1987); *Cont’l Cas. Co. v. Canadian Universal Ins. Co.*, 605 F.2d 1340, 1344 (5th Cir. 1979) (citing *Fitzgerald v. U.S. Lines Co.*, 374 U.S. 16, 83 (1963); *Romero v. Int’l Terminal Operating Co.*, 358 U.S. 354 (1959)). The Court does not need to decide whether the case involves a maritime tort or whether maritime, U.C.C., or Texas law applies. Even if Texas law is applied, as Berge requests, Berge has not proved by a preponderance of the evidence that GE is liable for fraud by omission.

To recover for fraud by omission under Texas law, the plaintiff must prove: (1) the defendant failed to disclose facts to the plaintiff when the defendant had a duty to disclose such facts; (2) the facts were material; (3) the defendant knew of the facts; (4) the defendant knew that the plaintiff was ignorant of the facts and did not have an equal opportunity to discover the truth; (5) the defendant was deliberately silent and failed to disclose the facts with the intent to induce the

plaintiff to take some action; (6) the plaintiff relied on the omission or concealment; and (7) the plaintiff suffered injury as a result of acting without knowledge of the undisclosed facts. *United Teacher Assocs. Ins. Co. v. Union Labor Life Ins. Co.*, 414 F.3d 558, 566-68 (5th Cir. 2005); *Omni USA, Inc. v. Parker-Hanifin Corp.*, No. H-10-4728, 2012 U.S. Dist. LEXIS 41694, at *10 (S.D. Tex. Mar. 27, 2012) (citation omitted); *Bittick v. JP Morgan Chase Bank, NA*, No. 4:11-CV-812-A, 2012 U.S. Dist. LEXIS 55057, at *19-20 n.9 (N.D. Tex. Apr. 18, 2012) (citation omitted); *Johnson & Higgins of Tex., Inc. v. Kenneco Energy, Inc.*, 962 S.W.2d 507, 524 (Tex. 1998) (citations omitted); *Horizon Shipbuilding, Inc. v. Blyn II Holding, LLC*, 324 S.W.3d 840, 849-50 (Tex. App.—Houston [14th Dist.] 2010, no pet.) (citation omitted); *BP Am. Prod. Co. v. Marshall*, 288 S.W.3d 430, 441 (Tex. App.—Houston [14th Dist.] 2008), *rev'd on other grounds by* 342 S.W.3d 59 (Tex. 2011). “Fraud by omission is a subcategory of fraud because the omission or non-disclosure may be as misleading as a positive misrepresentation of fact where a party has a duty to disclose.” *See, e.g., Four Bros. Boat Works, Inc. v. Tesoro Petroleum Cos., Inc.*, 217 S.W.3d 653, 670 (Tex. App.—Houston [14th Dist.] 2006, pet. denied) (citation omitted).

A. Falsity and GE’s Knowledge of Falsity

Preliminarily, the Court is not persuaded that the wrong or false “gas rod load” limit was given to Berge on the August 2004 Data Sheet. Because the SHMB604 was an API 11 model, the evidence does not convince the Court that it was improper or an omission by GE to disclose loads on maximum stationary parts only.¹³⁰ The evidence demonstrates there are significant discrepancies on how the term “rod load” is used by manufacturers and what the term means to compressor

¹³⁰ See PX 3; Section III.C.3, *supra*.

users.¹³¹ Even if the maximum rod load figures were understood by Berge to include loads on running gear, the statements have not been proven false. There were no tests performed nor other empirical evidence presented, showing what loads were actually experienced by the compressors in operation.

Berge points out that in subsequent promotional materials for the SHMB604, GE states the maximum rod load as 50,000/60,000 lbs. This evidence, however, is insufficient to prove the falsity or GE's knowledge of any falsity of the 72,752 lb. maximum gas rod load figure on the February and August 2004 Data Sheets. While it may have been better practice for GE to advertise lower, more conservative limits, as GE ultimately did, the Court is persuaded by testimony of GE engineers Simone Pratesi and Simone Bassani that the compressors' frames and running gear could operate under predicted conditions at the disclosed pressures of 72,752 lbs. in tension and compression.

The April 30, 2004 email from Eric Keifer,¹³² the document at the heart of Berge's first alleged omission, fails to prove that the GE engineers in either Houston or Italy knew or believed that the compressors were overloaded or unsuitable for use in the Chinguetti field. The testimony of several GE engineers established that Keifer, while a well-regarded engineer, did not have a full understanding of the approved "application" or "hard" limits for the SHMB604 compressors. Rather, it was GE's Italian engineers, such as Pratesi, Bassani, and Franco Graziani, who were most familiar with the capabilities of the equipment in

¹³¹ For instance, the fact that the maximum rod loads were equal in compression and tension indicates that they were to refer to the loads on stationary parts only. *See, e.g.*, DX 76; McKee Test. – Day 8, at 137-39.

¹³² PX 112A.

this respect and set those limits.¹³³ The Court is also persuaded by Pratesi, Bassani, and McDonald's testimony at trial that the compressors could in fact operate under the predicted conditions at the 72,752 lb. application limit that had been approved by Graziani, a senior engineer with GE in Italy, for the Berge application.¹³⁴

The June 9, 2004 email from Paolo Battagli,¹³⁵ the centerpiece of Berge's second claimed omission, also fails to prove that GE believed the SHMB604 compressors were overloaded or unsuitable. The email states plainly that Battagli's assessment was a "preliminary estimation." Subsequent GE emails confirming the rod load limits and comparing the results of the American EZ Size software and the Italian sizing program, Calc-26, demonstrate that GE's engineers came to understand the differences between the American and Italian software programs and the engineers resolved their concerns. The Court credits the testimony of various GE engineers that they concluded ultimately that the SHMB604 compressors were not overloaded in ordinary operation. The give-and-take by engineers, especially ones from different countries using different sizing programs, during the design of complex equipment is not sufficient evidence of GE's knowing deception, as contended by Berge.

Finally, the evidence does not establish by a preponderance that the 72,752 lb. maximum rod load figure was incorrect. As explained above, there is no direct evidence of the actual operating loads of the compressors on the BERGE

¹³³ See, e.g., PX 113.

¹³⁴ Even if Keifer's concerns were justified, his concerns were resolved when GE adopted his proposal to add "supernuts" and he approved the design for the addition of the supernuts in two locations. See, e.g., PX 170B; PX 172A; PX 174A; PX 174B; PX 712A; DX 23.

¹³⁵ See PX 140.

HELENE. The frequent breakdowns do not, in and of themselves, prove there was overloading caused by GE's design or assembly of the compressors. The many participants in the Chinguetti project had numerous hypotheses for the different stops. The causes, most likely, were various and multifaceted. None of the explanations were definitive. While GE's compressors may not have been problem-free, the many other likely contributing causes of the failures, including the unexpectedly complex field conditions that were dramatically different from the basis of design, problematic module components supplied and installed by Flotech and Aibel, the module's questionable design, the M60 module's questionable assembly, problems with aspects of the module's installation, and the questionable on-site module maintenance, lead the Court to conclude that the stops do not prove that the compressors in fact were overloaded and that GE's design was a significant cause of the stops.

Evidence also shows that GE acted in good faith during the design phase. When it knew it had a problem meeting a requirement—*e.g.*, when Flotech and Aibel requested that the compressors compress 70 mmscfd at suction pressures of 133 or 144 psig—GE engineers refused to agree. Furthermore, once the M60 module was installed, GE made extensive efforts, when requested, to assist in diagnosing the issues with the module's and compressors' performance under the difficult conditions presented.

B. Duty to Disclose

The Court notes that Texas law is unsettled on whether a duty to disclose can exist absent a fiduciary or confidential relationship. *See United Teacher Assocs.*, 414 F.3d at 566-67; *NuVasive, Inc. v. Renaissance Surgical Ctr. N., L.P.*, No. 4:11-CV-2897, 2012 WL 531129, at *6-8 (S.D. Tex. Feb. 17, 2012) (Ellison,

J.); *Citizens Nat'l Bank v. Allen Rae Invs., Inc.*, 142 S.W.3d 459, 476-77 (Tex. App.—Fort Worth 2003, no pet.).¹³⁶ Assuming that Texas law does impose such a duty in a non-fiduciary or confidential relationship, that is, that Texas law imposes under some circumstances a duty to disclose new information when that new information makes an earlier representation by a non-fiduciary or non-confidant misleading or untrue, Berge nevertheless has not established that GE had such a duty to Berge here.

Independent of the factual weaknesses in the claim that the compressors actually were overloaded, GE's only duty was to inform Flotech, GE's customer, if GE knew of an overloading problem. GE's only contract was with Flotech. After the February 2004 sales meeting in Oslo, GE's communications about the BERGE HELENE compressors and their capabilities were with Flotech until the M60 module demonstrated repeated performance issues. All witnesses confirmed that

¹³⁶ In *Bradford v. Vento*, the Texas Supreme Court reversed several intermediate appellate courts' holdings that a "duty to disclose information may arise in an arm's-length business transaction when one makes a partial disclosure and conveys a false impression." 48 S.W.3d 749, 755 (Tex. 2001) (citation omitted). The Supreme Court noted that Texas has never adopted Section 551 of the Restatement (Second) of Torts, recognizing a general duty to disclose facts in a commercial setting. *Id.* Ultimately, the Court based its ruling, however, on the fact that there was no evidence to support liability even if a general duty did exist. *Id.* As a result, some courts interpret *Bradford* as foreclosing the existence of a duty to disclose based upon a partial disclosure conveying a false impression, while others conclude that a duty to disclose may exist in the three following situations: "(1) when one voluntarily discloses information, he has a duty to disclose the whole truth; (2) when one makes a representation, he has a duty to disclose new information when he is aware the new information makes the earlier representation misleading or untrue; and (3) when one makes a partial disclosure and conveys a false impression, he has a duty to speak." *Four Bros. Boat*, 217 S.W.3d at 670-71 (quoting *Anderson, Greenwood & Co. v. Martin*, 44 S.W.3d 200, 212 (Tex. App.—Houston [14th Dist.] 2001, pet. denied)); see also *NuVasive*, 2012 WL 531129, at *8; *Sulzon Wind Energy Corp. v. Shippers Stevedoring Co.*, 662 F. Supp. 2d 623, 648, 651 (S.D. Tex. 2009) (Rosenthal, J.).

there was a strict protocol that permitted communications only with a participant's contract partner, not outside the formal contract chain. Berge has not met its burden to show that GE had a duty to make disclosures to Berge.¹³⁷

C. Conclusion

For the foregoing reasons, Berge has not shown by preponderance of the evidence that earlier statements in fact were false, that GE knew of any falsity, or that GE had a duty to make disclosures to Berge, an entity with which GE had no contract or direct relationship.

V. CONCLUSION

For all the foregoing reasons, the warranty claims against Defendant GE are not legally viable under maritime law and have not been proven by a preponderance of evidence. Further, Berge has not proven by a preponderance that GE committed fraud by omission. It is therefore

ORDERED that Plaintiff Berge shall **TAKE NOTHING** on its claims against Defendant GE. It is further

ORDERED that to the extent this opinion differs from Part III of the Court's Memorandum and Order [Doc. # 230] denying GE summary judgment regarding the requirement of privity in the maritime breach of warranty claims


¹³⁷ To recover on a claim of fraud by omission, a plaintiff must also prove that the undisclosed facts were material, that the defendant had intent to induce the plaintiff to take some action, and that plaintiff suffered injury as a result of acting without knowledge of the undisclosed facts. *E.g.*, *Omni USA*, 2012 U.S. Dist. LEXIS 41694, at *10 (citation omitted); *Bittick*, 2012 U.S. Dist. LEXIS 55057, at *19-20 n.9 (citation omitted); *Horizon Shipbuilding*, 288 S.W.3d at 441 (citation omitted). The Chinguetti project was essentially fast-tracked and all operated under tight deadlines. Woodside was eager to start and maximize oil production.¹³⁷ It is unclear what Berge could have done and what penalties it would have suffered if, in the Spring or Summer of 2004 when the lower suction pressures were under discussion, GE had made the disclosures Berge now says were required. Substantial delay not attributable to GE likely would have been occasioned by Berge changing course at that time.

asserted by Berge, the Court supersedes that Memorandum and Order with the analysis and conclusions herein. It is further

ORDERED that GE's Motion to Seal [Doc. # 379] is **DENIED**. All transcripts and any filings by parties on and after May 21, 2012 are to be **UNSEALED**. It is further

ORDERED that Berge's requests for attorney's fees and punitive damages are **DENIED as moot**.

SIGNED at Houston, Texas, this **30th** day of **September, 2012**.



Nancy F. Atlas
United States District Judge