DYNAMIC CONCEPT OF SEAWORTHINESS IN INTERNATIONAL MARITIME LAW- A SYSTEMATIC ANALYSIS

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ABSTRACT:
Seaworthiness is a determining factor in maritime transport, but given the scope and importance of this concept, there is no precise definition in the treaties and international conventions and regulations and only the seaworthiness of the ships is referenced as the obligation of the ship owner and carrier to provide seaworthy vessel for peaceful voyage facilitating commercial maritime relations. Seaworthiness covers a broad meaning in terms of vessel's technical field issues, crew and documents as well as the vessel's cargo. Many of the international maritime claims relates to the sea transport by ships which caused accidents which many of them are due to the lack of the ship's seaworthiness and defect in the ship. There are some shortcomings in the international laws and customs as well as in domestic laws in respect to the seaworthiness concept and its diagnostic and losing criteria during the voyage are accurately described in this article. This study aims to reach to a precise and legal definition of the seaworthiness concept and its diagnostic criteria as well as to determine the real and legal responsible body of failure in seaworthiness. Seaworthiness plays an essential role in fast and problem-free transport of the goods by the sea, but technical and legal tools are needed to provide that. In the context of a charter party, seaworthiness is a standard to which the condition of a ship has to be measured, particularly, before the beginning of a voyage in a voyage charter in case of incorporation of the Hague/Hague Visby Rules through a paramount clause and at the time of delivery of the vessel to a time charterer. In this respect, it is essential to mention two important features that characterize the concept of seaworthiness. Firstly, it is not absolute, as it depends on the nature of the ship, the voyage undertaken and the particular cargo carried. Secondly, the duty of the owner to provide a seaworthy vessel may vary from an absolute implied or express obligation to solely a due diligence to ensure the seaworthiness of the ship. This article profoundly analyses the shift in the concept of seaworthiness in the Hamburg rules which provides for the obligation of the carrier to provide the vessel seaworthy not only in the beginning of the voyage but also during the voyage. The concept of seaworthiness as provided in various international legal documents and arenas of international maritime law is analysed in this article to provide maximum clarity on the subject. This article also analyses the two-fold concepts of vessel seaworthiness and cargo-worthiness which are of prime importance to secure healthy commercial maritime relations. The last part of this article tries to reflect the opinion of the author that lists a set of factors to be considered in determining the seaworthiness of the vessel on the basis of various documents referred to.

INTRODUCTION:
"Shipping in the 21st century underpins international commerce and the world economy as the most efficient, safe and environmentally friendly method of transporting goods around the globe. We live in a global society which is supported by a global economy – and that economy simply..."
could not function if it were not for ships and the shipping industry”.

This comment highlights the significance of the maritime and shipping industry in the global trade and economy considering the fact that 90% of the global commerce and trade happens through carriage by seas. With such vitality, the maritime and commercial laws shall ensure the safety and security of trade throughout the voyage. Hence, the concept of seaworthiness which involves the obligation of carrier to provide the vessel seaworthy- fit in every sense to meet and encounter ordinary perils of sea. The obligation is not only limited to ensure safety and security of trade and commerce but also ensure the environmental protection and friendliness. In its broadest sense seaworthiness means the fitness of the vessel to encounter the ordinary perils contemplated for the voyage. The term is mainly used in the legal context and is often found in contracts entered into by the Company, e.g. charter-parties and bills of lading. It is generally interpreted to mean that, to be seaworthy, the vessel “must have that degree of fitness which an ordinary, careful and prudent owner would require his vessel to have, having regard to all the probable circumstances of the voyage”. Fitness covers not only the physical condition of the vessel, e.g. stability and construction, and its equipment, but also the competence of the crew and adequacy of her stores and fuel. It also extends to having the proper documents required for the vessel to be able to complete the voyage. Seaworthiness being an integrally vital concept is not just limited to maritime shipping laws but extends to maritime insurance laws, environmental protection laws, liability laws etc. This article aims to analyse in detail, the concept of seaworthiness in various aspects of laws and a critical analysis of the same. An analysis of the two fold concepts of vessel seaworthiness and cargo-worthiness is a part this article which is of supreme relevance when it comes to the maritime liabilities, rights and obligations of the charter parties and the carrier is also provided for a clearer understanding.

RESEARCH PROBLEMS:
1. Whether the definition and legal implications of the concept of seaworthiness as provided in various international conventions, rules and conferences the same?
   If not, critically analyse the same.
2. Whether the concepts of seaworthiness and cargo-worthiness one and the same?

SCOPE:
This article aims at providing a detailed study of the integral concepts of seaworthiness, explaining the concept in a dynamic sphere and compares the concept of seaworthiness with the concept of cargo-worthiness. The scope to limited to the concept in international maritime law regime. This article analyses various explanations and details and legal implications provided by various international conventions and rules in the international forum.

The scope is limited to comparison and critical analysis of the dynamics of the concept. The legal technicalities and practical procedures are excluded from the scope to narrow the systematisation. The scope of this article is not extended to maritime personal injuries and marine pollution aspects.

OBJECTIVE:
The primary objective of this article is to provide a clarity and detailed analysis and critical overview of how the concept of seaworthiness which is an integral element in the subject of international maritime law changes with changing times and in various international fora. By analysing various international conventions, rules, documents, conferences and case laws, it would be concluded that there’s a need to fix the ambit for this concept to prevent ambiguity and secure ends of justice in the sphere of international law. The article ultimately aims at providing a detailed study about the concept of seaworthiness and its implications on charter parties and also the concept of cargo-worthiness. This article is written understanding the practical necessity of the clarity of the concept.

HYPOTHESIS:
1. Seaworthiness is considered to be a dynamic concept in the sphere of international maritime law which changes with emergence of new trends in the contractual law evolution and globalisation mechanisms.
2. The definition, scope and legal implications of the concept of seaworthiness is not defined and fixed and hence needs to be clarified to avoid ambiguity.
3. The concepts of seaworthiness and cargo-worthiness have a deceptive similarity but are non-identical and have a different ambit.
4. Different conventions have dealt with this concept differently on the basis of the scope and objective of the convention however, there is a need to critical and comparatively evaluate and analyse the concepts and ambit to ensure clarity of concept and application.

RESEARCH METHODOLOGY:
A combined and integrated descriptive-analytic approach is taken to provide a detailed article on the dynamic concept of seaworthiness. A comparative approach is resorted to answer the first research question on the analysis of the concepts of seaworthiness and cargo-worthiness.

For the second question, a combination of various research tools like legal documents such as rules, conferences, conventions and case laws and literature are used to deeply analyse how dynamically the concept of seaworthiness changes in the sphere of international maritime law.

In general, various approaches are combined to make the article extensively useful such as:
- Comparative study
- Analytical study
- Case analysis
- Descriptive approach
- Critical analysis

LITERATURE REVIEW

This book discusses the problem of sea carriers’ liability, with a particular focus on role of the technologies that have been employed to support maritime transport in recent decades. It examines the Hague Rules, providing an overview of the precedent standard of liability, its historical development up until its application, and its construction at the current time. The book offers not only an unique overview of the applications of technologies in making ships both seaworthy and cargo-worthy, but also a practice-oriented guide to understanding and making decisions about sea carriers’ liability.
It is intended for law practitioners as well as advanced graduate students and researchers in the field of maritime shipping, transport and insurance law.

2. Ilian Djadjev, The obligations of the carrier regarding the cargo: The Hague-Visby rules (springer, 2017). This book addresses the legal and contractual obligations of sea carriers regarding due care for the cargo under a contract of carriage. While the general framework employed is the leading international liability regime, the Hague-Visby Rules, the discussions in each chapter also account for the possible future adoption of a new regime, the Rotterdam Rules. The subject matter concerns the standard for the duty of care for goods as codified in the Hague-Visby Rules, but the work also touches upon a wide range of related topics found both in law and in practice, providing valuable commercial, technical and historical links as well as various solutions that have been found at the national and international level to address challenges arising in this specialised area of law.


Rotterdam Rules of 2008 considered to be the modern successor of the Hague rules, Hague-Visby rules and Hamburg rules has incorporated article 14- extended liability of the carrier to ensure seaworthiness of the vessel not only in the beginning of loading and the start of the voyage but also during the voyage. This article is unique in the sense that it analyses the article 14 of Rotterdam rules in comparison to its legal forerunners.

EXISTING LEGAL SITUATION:
Till the early nineteenth century Maritime Law was governed by the domestic laws of various countries, e.g. the Common law in UK and US Harter Act etc. Ascertaining the global nature of the Carriage of Goods by Sea there was an urgent need to unify the rules governing maritime activities in General, and Carriage of Goods by Sea in particular. This was felt to ensure that the parties to any maritime activity are aware of the of the breach of agreements by either party. This resulted in the introduction of different maritime conventions to govern different aspects of maritime transactions, e.g. pollution, carriage of goods, safety and security, collision, liability, Maritime Liens and Mortgage etc. The first convention was the Unification of Certain Rules of Law relating to Bills of Lading, Brussels, 1924 (The Hague Rules). This convention was the first International instrument to change the nature of the carrier’s obligation to provide a seaworthy vessel. The duty changed from being an absolute duty to become a duty to exercise due diligence to make the vessel. The convention also provided detailed articles to deal with the issue of seaworthiness and basis of liability of the carrier. This convention was amended by Visby Amendments in 1968. Most countries now give effect to the Hague or the Hague-Visby Rules making them the widely accepted and applied Rules in the Carriage of Goods by sea area. This convention was followed by the United Nations Convention on the Carriage of Goods by Sea (Hamburg Rules) in 1978, which came into force in 1992. Rotterdam Rules of 2008 is considered as the modern successor to the Hague Rules,
Hague- Visby rules and the Hamburg rules
With regard to Seaworthiness this convention differed in the following ways:

1. It did not explain seaworthiness in a separate elaborate provision.
2. The duty of the carriers to exercise due diligence was extended to the whole period when the carriers have custody of the cargo.
3. It made the carrier responsible for the loss of or damage to the cargo unless he was able to prove his innocence.
4. It did not provide the carrier with a list of exceptions to limit his liability.

The above differences and others might have been the reason why not many countries signed this convention; to date only about 30 countries have signed and adopted this convention. Another Convention which has important impact on the issue of Seaworthiness is the International Convention on Safety of Life at Sea (SOLAS) 1974, especially Chapter IX which adapted the International Safety Management Code (ISM) and came into force in two stages July 1998 and July 2002, and Chapter XI which incorporates the International Ship and Port Facility Security Code (ISPS) Code which came into force in July 2005. These two Codes affect the safety and security aspects of the shipping industry and impose certain obligations on shipping companies to comply with their requirements. The shipping industry having found to be moving and enhancing to meet the needs of the trade, hence, the laws governing it should be updated to meet the changes in the industry. That is why the Committee Maritime International (CMI) and the United Nation Commission on International Trade Law (UNCITRAL) are working together on new Draft Instrument on Transport Law. This Instrument affects the carrier’s obligation of seaworthiness in different ways: 1. time at which the Carrier should exercise his duty. 2. the Carrier’s Basis of Liability and Burden of Proof. 3. the protections the carrier has to limit his liability. This article profoundly analyses the carrier’s obligation of seaworthiness due to its importance in the shipping industry. Its impact is not only limited to the Carriage of Goods by Sea but extends to several areas in the Maritime Law.

CHAPTER 1: CONCEPT OF SEAWORTHINESS

The definition of seaworthiness has not changed despite the changes in the laws governing Carriage of Goods by Sea in the few decades. As far as the concept of seaworthiness is concerned, the nature of the duty and extent of liability arising out of the damages caused by the unseaworthiness of the vessel has seen a drastic change in the few decades. It shall be observed that the concept of seaworthiness shall not be defined in specific limited terms as it does not only concern the physical state of the vessel but also various other factors and parameters. Marine Insurance law and the law governing Carriage of Goods by Sea define seaworthiness in various spheres. Hence, this chapter profoundly analyses the concept of seaworthiness as portrayed by these laws.

1.1 SEAWORTHINESS UNDER MARITIME INSURANCE LAW:

According to the maritime insurance law, the carrier of the vessel shall be bound by a duty to provide for the proof that the vessel is sea-worthy i.e, capable of performing the voyage without any disturbances internally. This is stated with the ascertainment that if the carrier fails to
provide the same, the carrier shall lose his right to claim compensation for the loss he might suffer.\(^1\)

The Maritime Insurance Act 1906 of the UK states that “A ship shall be deemed to be seaworthy when she is reasonably fit in all respects to encounter the ordinary perils of the seas of the adventure insured”\(^2\). However, the words in this section are considered vague and arbitrary, as many interpretations are possible for the words “all respects”. According to Sir Mackenzie Chalmers, the words “all respects” in section 39(4) shall include “manning, equipment and stowage”. The judges of the UK courts in many cases tried to interpret the meaning and scope of seaworthiness through various facts and circumstances. In the landmark case of Dixon v. Sadler\(^3\), seaworthy ships are those vessels that shall be proven to be in fit condition pertaining to the fitness of the equipment, crew and repairs and in all other relative respects so as to meet the ordinary perils of the voyage. In the context of maritime insurance laws, seaworthiness shall be used as a warranty which shall serve as a defence mechanism for the insurer rather than a liability imposing doctrine.

### 1.2 SEAWORTHINESS AS UNDER CARRIAGE OF GOODS BY SEA:

The laws concerning carriage of goods by sea has undergone a plethora of changes from the common law and Harter Act to the Hague rules 1924, Hague-Visby rules 1968 and the Hamburg Rules 1978, the concept of seaworthiness has remained unchanged and preserved in all these laws.

#### 1.2.1: COMMON LAW ASPECTS:

Under common law, the owner of the ship is under absolute obligation to provide the vessel seaworthy, the undertaking of the carrier in pursuance of the bill of lading is replaced by an obligation to exercise due diligence to ensure the seaworthiness of the ship. According to Field J, the carrier shall have an obligation to provide the vessel seaworthy by ensuring that the vessel is fit to meet and go through the ordinary perils of the sea and other incidental occurrences or risks which are likely to be exposed to the vessel during the voyage. The landmark case of McFadden v. Blue Star Line\(^4\), Channel J, observed the facts and circumstances of the case and defined seaworthiness of a vessel as that degree of fitness which an ordinary careful and prudent owner would require his vessel to have at the commencement of the voyage having ascertainment to all the probable circumstances therein. Under common law, the duty of seaworthiness refers to the obligation of the carrier to provide the vessel fit in every way, to receive the cargo and encounter ordinary perils of the sea which a ship of that kind shall be expected to do at that period of time\(^5\). The test applied to find whether the carrier or the ship owner exercised his duty to provide the vessel seaworthy or not is called the Carver test. According to the test, the vessel is considered unseaworthy if the prudent carrier/ship owner had known that the vessel

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\(^2\) Section 39(4) of the Maritime Insurance Act

\(^3\) (1839) 5 M&W 405

\(^4\) (1905) KB 697

has to undergo repairs before sending in the sea, but had sent it in the same condition before repairing. The relevant associated conditions shall be considered in determining the seaworthiness of the vessel like the type of the vessel, the route undertaken and the nature of the cargo etc. The degree and relevance of knowledge available at the time of sending the vessel is considered to be a crucial factor.

1.2.2: US HARTER ACT 1893:

The definition and scope of the concept of seaworthiness remained unchanged except for the nature of the obligation to provide the vessel seaworthy. According to section 2 of the act,

“That it shall not be lawful for any vessel transporting merchandise or property from or between the ports of the United States of America and foreign ports, her owner, master, agent, or manager, to insert in any bill of lading or shipping document any covenant or agreement whereby the obligations of the owner or owners of the said vessel to exercise due diligence to properly equip, man, provision, and outfit said vessel, and to make said vessel seaworthy and capable of performing her intended voyage... shall in anywise be lessened, weakened, or avoided”.

Section 3, entitled limitation of liability for errors of navigation, dangers of the sea and acts of God, provided:

“If the owner of any vessel transporting merchandise or property to or from any port in the United State of America shall exercise due diligence to make the said vessel in all respects seaworthy and properly manned, equipped, and supplied, neither the vessel, her owner or owners, agent, or charterers, shall become or be held responsible for damage or loss resulting from faults or errors in navigation or in the management of said vessel...”

Thus, Harter Act is an example and a forerunner in the subject of maritime law that provides for a shift towards making the vessel seaworthy an obligation to the carrier by exercising due diligence. This prevented the carriers from including exceptions in the bill of lading to get away with liability for the damages created not only in case of traditional exceptions like act of god, act of war or perils of sea but also by their negligence or own faults etc.

The main object of this Act is to create an obligation for the carriers to provide their vessel seaworthy and to exercise due care on the cargo.6

This approach of the Harter Act was then adopted by the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, Brussels, 1924 (Hague Rules) and its Visby Amendments in 1968 (Hague-Visby Rules) and the United Nations Convention on the Carriage of Goods by Sea (Hamburg Rules) in 1978 and the duty to exercise due diligence became a positive obligation on the part of the carrier.

1.2.3: HAGUE RULES AND VISBY AMENDMENTS:

The Hague/Hague-Visby Rules took a further step in defining seaworthiness, by providing detailed articles about what factors constitute seaworthiness in Art III rule 1:

“1 The carrier shall be bound before and at the beginning of the voyage to exercise due diligence to:

a. Make the ship seaworthy;

b. Properly man, equip and supply the ship;

c. Make the holds, refrigeration and cool chambers, and all other parts of the ship in which goods are carried, fit and safe for their reception, carriage and preservation”.

From Art III rule 1 it shall be ascertained that the Hague/Hague-Visby Rules replaced the absolute duty to provide a seaworthy vessel by the duty to exercise due diligence to make the vessel seaworthy. The article specified the elements of seaworthiness also.

It shall be noted that this provision extends the obligation of the carrier to provide the vessel seaworthy only before and at the beginning of the voyage and not during the voyage or at the end of the voyage. This obligation starts from the beginning of loading until the vessel starts the voyage. Also, due diligence is similar to the duty of care concept.

1.2.4: HAMBURG RULES:

Hamburg Rules, contrary to other legal documents adopted a general provision to deal with the concept of seaworthiness instead of a specific provision.

Article 5 of the Hamburg Rules provides that:

“1 The carrier is liable for loss resulting from loss of or damage to the goods, as well as from delay in delivery, if the occurrence which caused the loss, or damage or delay took place while the goods were in his charge as defined in article 4, unless the carrier proves that he, his servants or agents took all measures that could reasonably be required to avoid the occurrence and its consequences.

4 (a) The carrier is liable:

i. for loss of or damage to the goods or delay in delivery caused by fire, if the claimant proves that the fire arose from fault or neglect on the part of the carrier, his servants or agents;

ii. for such loss, damage or delay in delivery which is proved by the claimant to have resulted from the fault or negligence of the carrier, his servants or agents, in taking all measures that could reasonably be required to put out the fire and avoid or mitigate its consequences”.

It shall be observed that the liability of the carrier increased in terms of intensity in the Hamburg Rules considering the same in the Hague-Visby rules. It shall also be observed from the article 5 that the carrier is liable for the damages caused due to unseaworthiness, which implies that the carrier shall be bound to a duty to ensure that the vessel is seaworthy during the whole voyage, which is in contradiction to the Hague/Hague-Visby rules.

1.2.5: ROTTERDAM RULES 2008:

Rotterdam rules considered to be the modern successor of the Hague rules, Hague Visby Rules and Hamburg Rules applied to multimodal transport dealing with wide range of issues not currently subject to mandatory international law and applies to international sea-leg also. According to the Article 14 of the rules, the delivery of cargo is an integral obligation of the carrier and this responsibility starts from the time of loading and terminates only after successful delivery to the consignee. Thus, the obligation to
protect the cargo by ensuring seaworthiness of the vessel extends from the period of loading to the delivery of the cargo\(^7\). The obligation to keep the vessel seaworthy during the voyage as under article 14 of the rules is a non-delegable duty.

**1.3: CRITICAL ANALYSIS:**

From various definitions of seaworthiness of vessels in various legal documents and aspects, it shall be observed that the concept of seaworthiness is dynamic and changes according to the nature of the subject of maritime law.

It shall be observed that the concept of seaworthiness and its interpretation as contained in insurance policies or bills of lading depends profoundly on the conflict of law rules prevalent in various nations\(^8\).

It shall also be observed that the concept of seaworthiness and due diligence doctrine extends only at the loading stage and in the beginning of voyage in Hague-Visby Rules but extends to the whole of the voyage according to the provisions contained in the Hamburg Rules. This clash of ideologies in various international documents creates a confusion, nevertheless, a confusion and conflict still exist as far as domestic laws are concerned (principles of private international laws).

The concept of seaworthiness from the context of the charter-parties requires standard format for the express clauses to avoid ambiguity and uncertainty.

Obligation to keep the vessel seaworthy throughout the voyage is considered as an over-riding obligation as no exemptions are prone to be claimed by the carrier\(^9\). This shall be ascertained in situations where the carrier might not be aware of the location of the vessel!

As far as Rotterdam rules are concerned, it shall be noted and suggested that the following changes shall be brought to facilitate peaceful commercial maritime relations:

1. The obligation of the carrier to keep the vessel seaworthy shall be non-delegable at the beginning stages- loading and starting of the voyage.
2. The obligation of the carrier to provide the vessel seaworthy shall be delegable to the crew during the voyage provided that exercise of due diligence is undertaken in the processes of selection, training and appointing the crew.

**CHAPTER II: CARGO-WORTHINESS AND SEAWORTHINESS:**

Seaworthiness is an idea of fundamental significance to each one of those agreements and contracts related vessels, for example: charter parties, Towing, transportation of merchandise. Under the Italian Doctrine created by Crisafulli Buscemi, the idea of seaworthiness may shift

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\(^8\) Prof. Steven Girvin, “The obligation of seaworthiness: shipowner and the charterer”, (2017)

contingent upon climate it is viewed as absolute, "In abstracto", or relative "In concreto". The term “seaworthiness” denotes the capacity of a vessel to securely explore the proposed waters achieving a specialized transportation. The "In concreto" concept is associated with the capacity of the ship to effectively accomplish the agreed carriage. For instance, we can say that a specific ship might be in ideal stable conditions to securely explore between American ports, however a similar vessel wouldn't securely work in Arctic waters.

2.1 SEAWORTHINESS AND CARGO-WORTHINESS:

The first is the capacity of the vessel to securely explore the expected waters, implying that its body, motors and general instruments are in safe condition preceding and during the beginning of the planned voyage. Cargo-worthiness implies the reasonableness of the vessel to securely do the transportation of the expected freight for a specific voyage. From the specialized viewpoint, to decide cargo-worthiness, it is critical to consider load appropriation, payload verifying, sort of freight, hardware, machinery and equipment and great seamanship.

Seaworthiness is a relative term, and the ship just should be fit for sailing with the end goal of the specific voyage. The vessel must be adequately secure to meet the dangers liable to be experienced on the expected voyage. Seaworthiness concentrates not only on the state of the ship but also on the appropriateness and amleness of her equipment, machinery, and so on., the adequacy and competency of her masters, officials and crew, and what has been depicted as cargo-worthiness.

Texaco Inc. vs. Universal Marine, the Court expressed that "Since the term seaworthiness of a vessel is a relative one, the meaning for the same rests upon the vessel in question and the purpose for which it is to be utilized. By and large, a ship must be adequately solid and staunch and outfitted with the suitable appurtenances to enable it to securely participate in the trade for which it was expected. Put in another manner, the ship must be fit for the utilization expected." A vessel can be tight, staunch, solid and inside and out arranged for safe route, and yet it might in any case be unseaworthy in connection to certain cargoes with the goal that the ship-proprietor would be at risk for the loss of or harm to payload coming about because of the absence of the ascribe of cargo-worthiness important to the proper carriage of that specific freight.

The carriage of Goods by Sea laws modified the legal provisions with respect to the obligation of the ship-proprietor to provide a fit sailing vessel to the carriage of cargo via ocean. Substituting the absolute warranty of seaworthiness, an undertaking that the ship-proprietor should exercise due diligence to make the ship fit for sailing, performed it. These laws administer the legally binding relationship of the ship-proprietor and freight proprietor under the agreement of affreightment, and the concession to ship-proprietors implies that it is feasible for the

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11 (1975) 400 F. Supp 311
cargo-proprietor to fall between two stools in case of the unseaworthiness of the vessel.

Due to the absolute warranty in Marine Insurance, the underwriters could void their arrangement if the ship was found to have been unseaworthy towards the start of the voyage, and his claim for loss or damage to the freight would be against the ship-proprietor. With the usage of the Carriage of Goods by Sea laws, however the ship may as a matter of fact be unseaworthy, the ship-proprietor may potentially build up that it was not discoverable by the activity of due diligence and have the option to refuse liability. The significance of due diligence is of key significance in case of unseaworthiness. It implies that reasonable conduct under time and place conditions was worked out. The Brussels Conference 1967 called attention to that point that due diligence shouldn't be comprehended as the activity of making all the best to make the vessel seaworthy, however only what is exclusive to the specific case. Such diligence must be practiced before and at the initiation of the voyage.

2.2 INSTANCES OF CARGO-WORTHINESS:

In Stanton v Richardson\(^\text{12}\): It is found that the cargo offered was a reasonable cargo, and that the ship was not fit to carry a reasonable cargo … It seems to me that the obligation of the shipowner is to supply a ship that is seaworthy in relation to the cargo which he has undertaken to carry\(^\text{13}\). In this case, a vessel was engaged to carry a cargo of sugar in bags but when wet sugar was loaded this gave off such a quantity of molasses that the vessel was rendered unseaworthy. In the case of cargo which needs to be refrigerated, the equipment must be adequate\(^\text{14}\), as in the case of Maori King v. Hughes and, where a vessel is contracted to carry live animals, the vessel must be free of disease, in the case of Tattersall v. National Steamship Co Ltd\(^\text{15}\). Likewise, a cargo which cannot be offloaded because of an infestation of insects, would also render the vessel unseaworthy\(^\text{16}\). A vessel contracted to carry wool is unseaworthy if the holds are insulated for use as refrigerating chambers and unable to provide proper ventilation\(^\text{17}\). A vessel chartered for the carriage of refined, bleached, and deodorised palm is unseaworthy where the tank coating had failed by as much as 40 per cent when inspected on delivery by the charterer’s surveyor\(^\text{18}\). It has also been held that a vessel is unseaworthy where proper loading instructions were not given, leading to the capsize of a barge during loading\(^\text{19}\). Thus, in order to be cargo-worthy, the vessel must be capable of loading, discharging, and delivering the cargo safely at its destination\(^\text{20}\). It is also necessary that the cargo is stowed in such a way that it is safe for the vessel to proceed on her journey:

*It is the duty of the owner of a ship, and of the master as representing the owner, to take care that the ship is not loaded*

\(^\text{12}\) (1872) LR 7 CP 421  
\(^\text{13}\) (1874) LR 9 CP 390,392  
\(^\text{14}\) (1895) 2 QB 550  
\(^\text{15}\) (1884) 12 QBD 297  
\(^\text{16}\) BHP trading Asia Ltd v. Oceaname shipping ltd (1996) 67 FCR 211  
\(^\text{17}\) Queensland National Bank Limited v Peninsular & Oriental Steam Navigation Co [1898] 1 QB 567  
\(^\text{18}\) The Asia Star [2007] SGCA 17  
\(^\text{19}\) Tahsis Co v Vancouver Tug Boat Co [1969] SCR 12  
A vessel may, therefore, be rendered unseaworthy if there is no system in operation to deal with the need for the cargo to be stowed in a way that does not endanger the ship, bad stowage endangering the safety of the ship being unseaworthiness. If, on the other hand, a vessel is badly stowed, but this does not endanger the ship but only other cargo, the vessel will not be rendered unseaworthy. The carriage of sophisticated cargoes by sea has necessitated the taking of measures to protect the crew and prevent marine pollution; these measures include the International Maritime Dangerous Goods (IMDG) Code, the International Maritime Solid Bulk Cargoes Code (IMSBC Code), and the International Bulk Chemical Code (IBC Code), adherence to which is mandatory under SOLAS 1974 and MARPOL 73/78. The obligation to take care to make the vessel seaworthy does not, however, mean that the ship must be immune from the negligence of her crew. In The Kapitan Sakharov, the court held that under deck stowage of tank containers of isopentane, a flammable liquid, clearly contravened the IMDG Code and rendered the Kapitan Sakharov unseaworthy but that the shipowner, even exercising reasonable skill and care, could not have detected the presence of that cargo and had, therefore, exercised due diligence.

2.3: ANALYSIS:

The carrier is under an obligation to exercise due diligence or an absolute obligation in case of common law, where he ought to ensure the vessel is seaworthy and cargo-worthy so as to facilitate peaceful and safe voyage and transfer of goods. Seaworthiness involves the concept of ensuring that the vessel is physically fit for the purposes of navigation and to encounter the perils of ordinary nature during the sailing. Seaworthiness shall also ensure the safety of life on board including the passengers, captain and crew. This concept also brings an obligation to the carrier to ensure that the navigation documents and other relevant legal and technical documents are up to date and present to facilitate non-turbulent voyage. Cargo-worthiness is a concept through which the carrier is under an obligation to ensure the capacity of the vessel to receive and ensure stowage of the cargo in such way so as to ensure non-endangerment of the safety of the vessel and the cargo.

These two concepts are of prime importance as far as commercial maritime law is considered as they are concerned with rights.

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21 Denyssen (Muter’s Executor) v McFie (1860) 3 S 334 (Cape SC)
22 Kopitoff v Wilson (1876) 1 QBD 377
23 Connolly & Co v Federal Steam Navigation Co Ltd (1906) 22 TLR 685
24 Compania Sud Americana de Vapores SA v Sinochem Tianjin Ltd (The Aconcagua) [2009] EWHC 1880 (Comm)
25 Northern Shipping Co v Deutsche Seereederei GmbH (The Kapitan Sakharov) [2000] 2 Lloyd’s Rep 255
26 [2000] 2 Lloyd’s Rep 255, 266
27 [2000] 2 Lloyd’s Rep 255, 266
28 At 273 (for the purposes of Art III, r 1 of the Hague Rules, incorporated in the contracts of carriage: see below, text to n 307)
duties and liabilities of the carriers, freight-owners and other charter parties.

CHAPTER III: ARE THERE ANY TESTS TO DETERMINE THE SEAWORTHINESS OF A VESSEL?

It shall be observed that there are no explicit tests or doctrines to test the seaworthiness of a vessel. However, from the international legal documents and conferences and various domestic laws of various countries, it shall be observed that there are plethora of factors that shall be considered in determining whether a vessel is seaworthy or not. From the literature reviewed, the author tries to postulate few conditions in determining the seaworthiness of a vessel.

From the definition and concept of seaworthiness it shall be understood that the concept of seaworthiness is two-fold:

1. Vessel seaworthiness where the carrier is obligated to ensure that the vessel is seaworthy so as to undergo the ordinary perils of the sea before and during the voyage.
2. Cargo-worthiness of the vessel, where the vessel shall be proven to be fit to carry and deliver the cargo intended to be carried. This is a contingent concept as it depends on the nature of the cargo.

I. VESSEL SEAWORTHINESS:

1. PHYSICAL SEAWORTHINESS:
   a. Time of voyage
   b. Type of navigational water
   c. Type of vessel
   d. Existing state of knowledge
   e. Equipment and machinery
   f. ISM code
2. HUMAN SEAWORTHINESS:
   a. Competence of the crew
   b. Sufficient quantum of crew members
   c. Mismanagement
   d. Negligence or ignorance
3. DOCUMENTARY FACTOR
   a. Navigational documents
   b. Ship plan
   c. Safety documents
   d. Licenses and insurance policies (up to date)

II. CARGO-WORTHINESS OF A VESSEL:

   a. General cargo-worthiness
   b. Specific cargo-worthiness
   c. Bad stowage

CONCLUSION:

Seaworthiness as a vital concept shall be observed that the shipping law and commercial maritime laws impose a unique duty on the carrier to provide the vessel seaworthy which does not exist in the other modes of carriage. However, it shall be observed that the nature of its obligation has undergone a series of changes from being an absolute duty to fault liability and exercise of due diligence. This article thus analysed the scope of the concept of seaworthiness as provided and explained in various legislations and internationally agreed documents. The concept of vessel seaworthiness and cargo-worthiness are two integral concepts that are equally important as they impose an obligation on the carrier to ensure that the vessel is not only seaworthy to ensure and encounter the ordinary perils of sea during the voyage but also to ensure that the vessel is cargo-worthy to as to ensure safe and secured delivery of the goods. Thus, although the concept is dynamic depending on the nature of laws, there is always a need to specify certain definite factors that shall be taken into consideration in determining the seaworthiness of the vessel.
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