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WORLD MARITIME UNIVERSITY

Dalian, China

**Research on the Carrier's Seaworthiness
Obligation in *Rotterdam Rules* and the Influence on
the *China Maritime Code***

**By
Huang Qiong**

China

A research paper submitted to the World Maritime University in partial
Fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE

(MARITIME SAFETY AND ENVIRONMENTAL MANAGEMENT)

2015

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Declaration

I certify that all the material in this research paper that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this research paper reflect my own personal views, and are not necessarily endorsed by the University.

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the *China Maritime Code***

Degree: **MSc**

Abstract

The United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, which is also known as the *Rotterdam Rules* as the signing ceremony in Rotterdam, was approved by the Session of the UN General Assembly on December 11th, 2008. The Convention makes some new rules for the carrier's obligation of seaworthiness. For example, in article 14 of *Rotterdam Rules*, it is the first time to make the carrier's seaworthiness obligation as a persistent and integrated obligation. These changes reflect the development tendency that the obligations and responsibilities of the carriers has been gradually increased and also reflect the objective requirements of balancing the benefit of both ship and cargo, which will make great impacts on international maritime transport of goods.

As an important shipping and trading country in the world, China should also pay adequate attention to these changes and the result in the legislation and practice in domestic maritime transport of goods.

In this paper, the carrier's seaworthy obligation's content, newest development and its

influences are discussed in details, and the concrete suggestion and strategy about China's application for this newest regulation is proposed.

KEYWORDS: Carrier; Seaworthy Obligation; Rotterdam Rules; China Maritime Code.

Table of Contents

Declaration	2
Acknowledgement	3
Abstract	5
Chapter I Introduction	9
Chapter II The Carrier's Seaworthiness Obligation in International Convention and Development Tendency	11
2.1 The Carrier's Seaworthiness Obligation before <i>The Rotterdam Rules</i>	11
2.2 The Rotterdam Rules redefined the carrier's seaworthiness obligation	14
2.3 The development tendency of the carrier's seaworthiness obligation	15
Chapter III Specification of the carrier's seaworthiness obligation in the Rotterdam Rules	17
3.1 The period of seaworthiness obligation in the Rotterdam Rules	17
3.2 Objective requirements on the seaworthiness obligation under the Rotterdam Rules	19
3.3 Subjective requirements on the seaworthiness obligation under <i>the Rotterdam Rules</i>	22
3.4 Distribution of burden of proof and seaworthiness obligation status changes of breaking seaworthiness obligation under <i>the Rotterdam Rules</i>	24
Chapter IV The influence of the carrier's whole seaworthiness obligation in the Rotterdam Rules on the China Maritime Code	28
4.1 The carrier's seaworthiness obligation in <i>China Maritime Code</i>	28
4.2 Advanced requirements on the obligation of seaworthiness by research and absorption of <i>the Rotterdam Rules</i>	29
Chapter V The influence of the carrier's whole seaworthiness obligation in the Rotterdam Rules on other maritime systems	33

5.1 Influence of the whole seaworthiness obligation on nautical fault exemption....	33
5.2 Influence of the whole seaworthiness obligation on contribution to general average	34
5.3 Influence of the whole seaworthiness obligation on marine insurance system ...	35
5.4 Influence of the whole seaworthiness obligation on the carrier's charging freight	36
Chapter VI Conclusion.....	38
References	40

Chapter I Introduction

In the field of international carriage of goods by sea, the carrier should exercise due diligence to ensure her ships have all kinds of abilities to complete transportation mission, according to the contract of carriage of goods by sea. That is also called seaworthiness obligation. These abilities mainly include the ship's ability to resist against perils of the sea, the ability of cargo worthiness as well as navigation ability.

Provision of the carrier's seaworthiness obligation has a long history. In the early 20th century, *International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading, 1924 (also called the Hague Rules)*, that adjusted the carriage of goods by sea, acknowledged it as the overriding obligation of carriers. And it has been in use till now. Whether this obligation is performed or not is closely related to the safety of the carriage of goods by sea. Besides, it relates to the interests of the ship owner and the cargo owner. Therefore, global society has been paying special attention to this obligation. However, with the continuous development of times and the rapid progress of science and technology, navigation technology also made a significant improvement. That greatly reduces the risk of the carriage of goods by sea. (Ongom, R. 2008. pp.12-13) Traditional seaworthiness obligation concentrates more on protecting the carrier's interests. As a consequence, cargo owners, especially large international traders gradually doubt it. Thus, global society widely calls for the provision of a new international convention that places emphasis on balancing cargo interests of two sides.

Then *the Rotterdam Rules* came into force on December 11th, 2008. Article 14 of the convention made new rules about the carrier's seaworthiness obligation, which met

this requirement. *The Rotterdam Rules* classified the carrier's seaworthiness obligation as an absolute and continuing obligation for the first time. It increased the obligations and responsibilities of the carrier and affected many relevant aspects of carriage of goods by sea, so it had certain era significance and advancement. Therefore, apparently, *China Maritime Code*, which has used the carrier's seaworthiness obligation in *Hague Rules*, lagged behind the development requirements of the times. (Si, Y. 2002. pp.156.) Based on such condition, this paper will analyze the content and development of traditional carrier's seaworthiness obligation in detail. Besides, it will analyze the influence and significance of the change, and come up with specific suggestions on China's appliance of the newest regulation, as well as the influence on other maritime systems.

Chapter II The Carrier's Seaworthiness Obligation in International Conventions and Development Tendency

The shipping industry is full of risk, so safety operation is fundamental in developing shipping industry. Its purposes are to ensure the security of the cargo, decrease the loss in the process of shipping and guarantee the development of shipping industry and trade industry. This is related closely to the carrier's seaworthiness obligation. Apart from that, the performance of the carrier's seaworthiness obligation directly connects with whether the carrier and ship-owners can enjoy liability exemption. As a result, seaworthiness obligation has long been called the overriding obligation of the carrier of carriage of goods by sea.

2.1 The Carrier's Seaworthiness Obligation before *The Rotterdam Rules*

At the beginning of the shipping industry, there were some simplest requirements on the carrier's seaworthiness obligation, including the number of the ship's crew and so on. The seaworthiness standard of modern sense was established in a case in England in 1804. And at that time seaworthiness made absolute requirements on the ship owner (Yue, Y. 1997. pp.61). There were seaworthiness regulations, but the ship owner was so powerful that many disclaimers appeared. In this way, seaworthiness obligation had little influence on the ship owner. After that, the rapid development of science and technology as well as the international trade forced a change in the situation. The United States formulated and passed the *Harter Act* in 1893. In the aspect of seaworthiness, *Harter Act* complied with the historical condition at that time. It split the difference between absolute seaworthiness and freely formulating unlimited exemption clause. Finally, it made fair and sustainable standard-relative seaworthiness. (Yue, Y. 1997. pp.62) According to this standard, ship-owners shall

make the ship seaworthy before and during sailing. But meanwhile, it stipulated in Article 2 that the carrier mustn't exempt due diligence to make the ship seaworthy in the form of contract terms. That made seaworthiness obligation transitioned from absolute seaworthiness to relative seaworthiness. Even up to now, relative seaworthiness obligation is still in use.

Harter Act was rational and pragmatic, so other countries began to follow the suit, promoting *Hague Rules* was signed and came into effect in 1924. (Li, H. 2010. pp.23) Paragraph 1 in Article 3 of *Hague Rules* made further requirements on the ship's seaworthiness. The carrier shall be responsible before and during sailing to equip the ship with crew and goods properly. Additionally, the carrier shall make sure that cargo hold, refrigeration hold, cooler room and other cargo places on that ship can adapt and safely receive, deliver and take care of goods.

Some countries gradually recognized and accepted the *Hague Rules*, which played a positive role in integrating and unifying complex laws of international carriage of goods by sea. As *Hague Rules* was used widely, many representative disputed cases were solved. Also, some principles on how to deal with maritime disputes were formed, which was of great significance for the maritime judicial practice. So to speak, under the adjustment and regulation of *Hague Rules*, the cargo interests achieved basic balance, promoting the revitalization of international carriage of goods by sea.

However, at the late 1950s, both international political situation and the international economic situation changed a lot. Also, international navigation and shipbuilding technology made quick improvements. The carrier held a small risk. Marine navigation became safer and more reliable. Obviously, according to the former

regulation, it would be harmful to the cargo interests if the risk were transferred to the cargo owner. It was difficult to maintain the balance already established. More disputes appeared. Under that circumstance, *Hague Rules* had to make innovation so as to seek for the new balance in the shipping market. Some problems in *Hague Rules* didn't fit actual condition in the shipping market. Although in 1968, *International Convention for the Unification of Certain Rules of Law relating to Bills of Lading (1924)/ First Protocol (1968)*, also called *Hague-Visby Rules*, involved these problems to some extent, its basic frame didn't get rid of *Hague Rules* completely, nor did it change the carrier's seaworthiness obligation in nature. (Li, H. 2010. pp.29-30)

To adapt to the development of carriage of goods by sea and improve the carrier's liability rules, United Nations Convention on the Carriage of Goods by Sea (also called *Hamburg Rules*) came into force in 1978. Many contents in this convention reflected the tendency of increasing the carrier's responsibility and risk. The *Hamburg Rules* didn't carry out the provisions on the carrier's legal obligation or regulate the seaworthiness obligation. It didn't carry out provisions on the carrier's statutory exemption. As to the responsibility of the carrier, it adopted the complete fault liability system. Meanwhile, it abolished exemption of nautical fault. Both the carrier's seaworthiness obligation and the carrier's burden of proof were emphasized in the *Hamburg Rules*. As a matter of fact, the carrier had to confront new requirements. The carrier should take every reasonable measure to guarantee the ship's seaworthiness, not only before and during sailing but also during the whole voyage. Besides, the carrier should make every endeavor to make the ship return to seaworthiness condition after suffering from risk. On the other hand, the *Hamburg Rules* exerted doctrine of presumption to determine the carrier's liability responsibility. Therefore, the carrier had to undertake the ship's seaworthiness and

the burden of proof of causality. It was of great difficulty for many shipping countries to accept such “one-sided” mode in the allocation of the burden of proof. At present, the three conventions exist simultaneously, and they are in use respectively within acceding states and ratifying states. Along with the further internationalization of shipping market, none of the three conventions fits the operation of shipping market completely. (Si, Y. 2002. pp.187)

2.2 The Rotterdam Rules redefined the carrier’s seaworthiness obligation

Under the above background, in the field of international carriage of goods by sea, international communities need badly a unified rule. The rule can adapt and regulate contract relationship of carriage of goods by sea according to the reality of developing international goods transportation. *The Rotterdam Rules* adapted and regulated the successful operation of international goods transportation. Meanwhile, it found a new fulcrum for the balance of the interests of the carrier and the cargo interests, promoting the further development of shipping practice. During the formulation of the *Rotterdam Rules*, the main shipping countries actively expressed their views, advocated the modification and perfection of the draft Convention and accelerated the process of making convention into a formal international convention. At the same time, the main shipping countries took their shipping reality into consideration and hoped the *Rotterdam Rules* could bring them more interests.

Article 14 in the *Rotterdam Rules* made regulations on the carrier’s seaworthiness obligation. According to it, the carrier shall cautiously deal with the following conditions before and at the beginning of the voyage as well as during the whole voyage. Firstly, the carrier shall make the ship in the state of seaworthiness and keep

it. Secondly, the carrier shall properly equip the ship with crew, equipment and supplies and keep these conditions in good. Thirdly, the carrier shall make cargo bay, all the other cargo space on the ship, and the cargo container that the carrier provides fit for receiving and transporting safely. Compared with the *Hague Rules*, the *Rotterdam Rules* didn't make big changes in expression except for adding "during the whole voyage" and "keep." However, although only some words were added, it made a breakthrough in the carrier's seaworthiness obligation. The carrier shall not only cautiously deal with the ship's seaworthiness obligation before and at the beginning of the voyage, but also during the whole voyage. It is a continuous obligation, that is, before and at the beginning of the voyage at the port of shipment, then at the port of call, even during the whole voyage on the sea. The Convention explicitly defined the whole process of the carrier's seaworthiness obligation. That change apparently increased the weight of the carrier's seaworthiness obligation and the carrier's risk and responsibility. That change will surely have a large influence on many relevant aspects in international carriage of the goods by sea.

At present, the majority of countries, including China, haven't signed on the Convention. However, although some countries haven't decided to sign the Convention, they still have made official statement that they affirm and praise the prospect that the *Rotterdam Rules* will unite international transportation relationship of the carriage of goods by sea. Besides, they will make every endeavor to make it earlier for the Convention to come into effect (Chan, W. 2009.pp23-25).

2.3 The development tendency of the carrier's seaworthiness obligation

To sum up, we can see that legislation on the carriage of the goods by sea in the

Hague Rules era mainly represented the interests of the ship-owners. (Sturley, M. 1991. pp.155) The main reason was that it was risky to transport goods by sea. To encourage the carrier to transport goods by sea, they made such an obligation that the carrier should take seaworthiness obligation only before and at the beginning of the voyage. With the development of marine technology and international goods trade, ships become more powerful to resist risks. Additionally, the cargo interests hold a higher and higher international status. So shipping countries gradually doubted the carrier's seaworthiness obligation in the *Hague Rules*, which couldn't meet the development needs of international carriage of goods by sea. The *Hamburg Act* canceled nautical fault exemption while the *Rotterdam Rules* defined the carrier's seaworthiness obligation in the whole process. Therefore, the carrier's seaworthiness obligation developed towards a tendency that was stricter and stricter with the carrier.

Chapter III Specification of the carrier's seaworthiness obligation in the Rotterdam Rules

What is the ship's seaworthiness? Generally speaking, if a ship can overcome predicted risk and satisfy safety requirements to make the carriage of goods by sea successful, that ship has seaworthiness. To ensure the ship's seaworthiness, the hull's seaworthiness must be guaranteed in physics. Also, other aspects must have seaworthiness, including fueling, crew and so on.

3.1 The period of seaworthiness obligation in the *Rotterdam Rules*

The *Rotterdam Rules* made a higher standard for the carrier's seaworthiness obligation. The carrier shall not only deal with the ship cautiously before and at the beginning of the voyage to make the ship fit for sailing, but also keep the state during the whole voyage. That was distinctly different from the *Hague Rules*. The new standard increased both the carrier's obligation and responsibility. In the process of making the draft Convention, representatives held different opinions about whether the seaworthiness obligation should be kept during the whole voyage. Some believed that it would make the carrier's burden heavier and force the carrier to raise the freight. On the contrary, most delegations, including the United States and Japan, supported to extend the ship's seaworthiness to the whole voyage.

To some extent, the canceled nautical fault exemption and the fault liability system in the *Rotterdam Rules* would surely cause the carrier's seaworthiness obligation extending to the whole voyage. After canceling the nautical fault exemption, although seaworthiness obligation was limited to before and at the beginning of the

voyage, there were still many potential risks during the whole voyage. For example, the ship itself might lose seaworthiness if the crew made mistakes when changing equipment or supplies. Or the cargo might lose cargo worthiness because of the crew's negligence or fault. In these circumstances, the carrier couldn't rely on nautical fault exemption to defend for the damage compensation. (Si, Y. 2007. pp.301-302) Therefore, in fact, the carrier must carry out the seaworthiness obligation during the whole voyage. In the aspect of international shipping practice, marine technology keeps improving, and marine level makes continual progress. Therefore, the carrier can use advanced technology to watch the sailing reality of sailing ships. Besides, the carrier can take every practical technology to repair unseaworthiness and keep the ship seaworthy. As a consequence, it's reasonable for the *Rotterdam Rules* to order the carrier carry out the persistent seaworthiness obligation during the whole voyage.

After the *Rotterdam Rules* had extended the carrier's seaworthiness obligation to the whole voyage, it became less important for the cargo interests to tell before sailing from at the beginning of the voyage. The cargo interests need to determine when to begin and end seaworthiness obligation during the whole voyage. According to the *Rotterdam Rules*, the carrier shall carry out the seaworthiness obligation before and at the beginning of the voyage. It is not just repeating words when jointly stating before, at the beginning and during the whole voyage. Instead, it emphasizes the importance of keeping the seaworthiness obligation during the whole voyage. And it gives a definite answer to the dispute on whether seaworthiness obligation should be extended to the whole voyage. The *Rotterdam Rules* ordered that the carrier should carry out the whole seaworthiness obligation, so the cargo during the whole voyage include the cargo before sailing from the port of loading and the port of call. The carrier must handle the cargo and cautiously deal with the seaworthiness obligation.

Constant changes had taken place before the *Rotterdam Rules* which ordered that the carrier should carry out the whole seaworthiness obligation. The carrier should not only cautiously perform to make the ship seaworthy at the port of loading, but also at the port of call. The *Rotterdam Rules* made changes according to the development reality of international shipping and adapted marine technology and level. It didn't refer to former Convention but offered improved legislation technology for balancing interests of the carrier and the cargo interests.

3.2 Objective requirements on the seaworthiness obligation under the Rotterdam Rules

The *Rotterdam Rules* redefined the carrier's seaworthiness obligation, whose objective requirements are reflected in Article 14. Below are statements from three aspects: hull seaworthiness, crew seaworthiness and cargo loading places seaworthiness.

3.2.1 Analysis on hull seaworthiness

The first item in Article 14 of the *Rotterdam Rules* made demarcation to the hull seaworthiness. During the voyage, different loaded cargo, hydrological and meteorological conditions have different influences on the perils of the sea on the particular voyage. According to sailing reality, the carrier need provide suitable ships to ensure structure design and combat strength. In this way, some risks can be avoided. Besides, the voyage can be safe and successful.

Perils of the sea in specific season and voyage change with reality. Such uncertainty calls for the seaworthiness of the hardware on the hull. First, the carrier should choose suitable ships in accordance with potential risks. Besides, all the equipment on the ship must be checked and be able to resist perils of the sea to ensure the security and success of the voyage. That is to say, the ships fit for coastal and inland waterway transport aren't necessarily fit for an ocean-going voyage. The success of voyage is closely related to supplies. The fuel, material, fresh water and food must satisfy the needs of the voyage, which is a must in seaworthiness and a successful voyage.

3.2.2 Analysis of the content of crew seaworthiness

The second item in Article 14 of the *Rotterdam Rules* made a request on how to make crew seaworthy. To ensure the ship seaworthiness and a safe voyage, the ship must be equipped with the certain qualified crew, which is an essential factor in affecting ship seaworthiness. The quantity of the crew must meet not only the requirement of the total crew, but also the number of crews who hold job certificate. Both the quantity and the quality of crew are indispensable for the equipping crew. There isn't a united standard on the ship personnel problem. International Maritime Organization once made an endeavor to unite international crew personnel standard. However, no further progress was made because of different types of ships, different technical requirements and different economic and social systems. Presently, every country determines the crew personnel mainly by depending on the reality and maintaining safe voyage. At present, international main evidence on measuring whether the carrier equips the ship with proper crew is *International Convention on Standards of Training, Certification and Watchkeeping of Seafarers (1978)* and the attached *Regulations of Training, Certification and Watchkeeping for Seafarers*. Main

evidence on measuring whether the equipment on a ship is proper is *SOLAS* (1974) and its amendment. And its standard keeps changing with the development of science and technology.

For ensuring the crew seaworthiness, the crew personnel must meet the requirements of a safe voyage. What's more, regulations and management of crew must be strengthened to make crew seaworthiness in both quality and quantity. On one hand, the number of the crew must not only satisfy the requirements of the normal ship on duty or at work but also the minimum safe manning certificate of the ship. On the other hand, from the aspect of quality, the crew must have usual knowledge and skills with skills certificate (Si, Y. 2007. pp.271-273). They should also have a good physical condition to be competent for the job. The Stranding Accident of "Boshiji 038" is a typical case in which crew unseaworthiness resulted in ship unseaworthiness. In that case, the majority of the crew didn't have a certificate of competence. The captain didn't have one, either. He disobeyed the shipping administrative regulations and arbitrarily docked the ship at the quay without safe anchorage conditions. Therefore, the ship sank aground because of the impact of rising tide. From the actual case of unseaworthiness of the crew, the court judged that crew unseaworthiness led to the ship unseaworthiness, and the carrier should compensate for the cargo damage.

3.2.3 Analysis of the content of cargo loading places seaworthiness

The third item in Article 14 of the *Rotterdam Rules* made regulations on the cargo loading places seaworthiness. It clearly points out the seaworthiness of loaded container. That is closely related to increasing development of modern container transportation. In modern container liner transportation, disputes on the damage of

cargo often appear because containers aren't fit for loading cargo. The carrier always provides containers. Because cargo interests lack experience and relevant knowledge, they usually can't strictly check containers to guarantee the seaworthiness of containers. So the *Rotterdam Rules* made specification on containers. Although that raises the standard of the carrier's seaworthiness obligation, it meets the development requirements of container transportation. Besides, it perfects the content of cargo loading places seaworthiness, and it is good for carrying out the carrier's seaworthiness obligation as well as ensuring a safe carriage of goods by sea.

Compared with the carrier's hull seaworthiness obligation and crew seaworthiness obligation, the concrete difference of the cargo loading places is even greater. Concrete requirements of the cargo loading place seaworthiness change with the different transport of goods in each specific voyage. The carrier must cautiously deal with the concrete requirements of the cargo loading places seaworthiness in different ways when the voyage transports petroleum, chemicals, bulk cargo. Measuring whether a ship is seaworthy must rely on analyzing real cases to achieve the impartiality of the verdict.

3.3 Subjective requirements on the seaworthiness obligation under *the Rotterdam Rules*

Due diligence is an abstract concept. Even up to now, academic and practical circles haven't reached an agreement on how to define it in detail. Such regulations like "the carrier shall cautiously deal with..." remain in Article 14 in the *Rotterdam Rules*. Therefore, it is a necessity to understand further due diligence.

The carrier should take imaginable measures to maintain the performance of the ship itself and resist potential risks in the voyage. It is acknowledged that as long as the carrier does so and achieves the level of average recognition, he has due diligence. However, it is difficult to define the specific standard of this abstract and subjective concept. There are different opinions. According to scholars in Taiwan, the carrier should fully and reasonably deal with the ship to make the ship seaworthy on the basis of habits, convention and practical experience of the carriage of goods by sea. Others think that the carrier should make every endeavor to make the ship seaworthy. The carrier should have due diligence. That means the carrier should hold a rational, prudent and positive attitude towards shipping reality at a particular moment. After analyzing the two ideas above, people draw the conclusion that it's better to strengthen the analysis and summary in the maritime judicial practice to provide a reference for the following maritime court. (Xie, L. 2009. pp.29)

In maritime judicial practice, if a ship is not seaworthy or the cargo damage results from defects, the shipping industry can evaluate due diligence from some aspects. They are: whether the carrier obeys laws and regulations of safe navigation at sea, whether that defect objectively causes cargo damage and whether the carrier subjectively deals with the ship. If a carrier meets the standard of prudence both subjectively and objectively, the shipping industry can decide the carrier has due diligence. If a carrier neglects one or some aspects and makes the ship unseaworthy and the cargo damage, the shipping industry can decide the carrier doesn't have due diligence. There isn't a certain and objective standard of due diligence. Instead, the judge must rely on the facts of a case and discretion to determine whether a ship is seaworthy or not.

3.4 Distribution of burden of proof and seaworthiness obligation status changes of breaking seaworthiness obligation under *the Rotterdam Rules*

3.4.1 Distribution of burden of proof of breaking seaworthiness obligation

The ship's unseaworthiness results in damage to cargo, the fifth item in Article 17 makes special regulations on the distribution of the burden of proof of it and the causation. Article 17 establishes the burden of proof system. Studying this regulation carefully is the basis of studying the sequence arrangement of burden of proof. The claimant needs to prove the ship is unseaworthy and the real or potential causation between the unseaworthiness and cargo damage, shortage of goods and delay in delivery. This is the preliminary claimant of the burden of proof. The carrier needs to prove further there is no causation between the unseaworthiness and cargo damage, shortage of goods and delay in delivery. The carrier also needs to prove that he has due diligence although the ship is unseaworthy. Otherwise, the carrier is presumed to be the negligence and bear all or part of the liability for compensation. Besides, the carrier's compulsory exemption has a premise. That is, there is causation between the unseaworthiness and cargo damage, shortage of goods and delay in delivery.

It can be seen from the arrangement of the burden of proof that there are two presumptions of that carrier's liability base. Firstly, if the carrier can't prove he or the one mentioned in Article 18 has no fault, it is presumed that he made mistakes, and he should take liability for compensation. Secondly, if the claimant can't prove the ship is unseaworthy, it is presumed that the carrier isn't wrong, and he needn't take liability for compensation. Besides exception from liability and the ship seaworthiness, the liability of the carrier for the goods shall implement the

presumption of negligence (the first presumption). In the scope of the carrier's exemption and the ship seaworthiness, the liability of the carrier for the goods shall implement the presumption of non-negligence (the second presumption).

Therefore, the relationship between the liability of the burden of proof and the exemption of the burden of proof performs in the following way. In the carrier's claim exemption, the *Rotterdam Rules* presumed that the carrier has due diligence, and he has no fault. The claimant should prove the ship is unseaworthy and the causation of the unseaworthiness and cargo damage, shortage of goods and delay in delivery. However, as stated above, the claimant's proof of causation can't lead to the carrier's liability exemption. If the carrier wants to exempt liability for compensation, he must also undertake the burden of proof of no causation and due diligence. That is to say, the claimant's proof of causation is not the final proof, and it won't lead to the corollary. Also, the *Rotterdam Rules* requires that the proof of the ship seaworthiness is not the premise of the carrier's invoking statutory exemptions. But if the claimant shows evidence to carry on the preliminary burden of proof of the ship unseaworthiness, and proves certainly or possibly the ship unseaworthiness results in loss, damage or delay in delivery, the carrier has responsibility to further prove the ship is seaworthy.

To adapt to the real development of the ocean shipping, the *Rotterdam Rules* is attached to higher seaworthiness obligation requirements to the carrier. Although it increases the liability of the carrier, it balances and protects the carrier's profits from other aspects. (Si, Y. 2002. pp.159-160) That is mainly reflected in the burden of proof. Under the *Rotterdam Rules*, the carrier shall not bear the substantial burden of proof of the ship seaworthiness, which is undertaken by the claimant. According to the *Hague-Visby Rules*, the carrier shall bear the substantial burden of proof of the

ship seaworthiness. After fully weighing the interests of the carrier and the cargo owner, the *Rotterdam Rules* made re-adjustment specification on the burden of proof of the carrier's obligations and seaworthiness. That not only makes the carrier's seaworthiness obligation and burden of proof reach a new equilibrium, but also is beneficial to the long-term development of the international transport of goods.

3.4.2 Changes of *the principle of overriding obligation*

The second item in the Article 4 of the *Hague Rules* presents seventeen reasons for the carrier's liability exemption. The first one is the carrier's liability for the voyage. The concrete description of the law is: "For the loss or damage resulted from the following reasons, neither the carrier nor the ship shall be responsible. First, the captain, crew, pilot or the carrier's behavior, negligence or defaulting..." Although the twelve liability exemptions in Article 51 of *China Maritime Code* are different from the *Hague Rules* in expression, they share the same meaning. There is an internationally recognized logical relationship between the carrier's seaworthiness obligation and invoking nautical fault exemption. If the carrier invokes this exemption, he must prove he has done the seaworthiness obligation. Seaworthiness obligation is the prerequisite of nautical fault exemption. That also reflects the seaworthiness obligation as the *overriding obligation*.

Maxine Footwear v. Canada Government Merchant Marine Case (Baughen, S. 2001. pp.231-233) played an essential role in determining the status of the carrier's seaworthiness obligation. The verdict of the case made by Lord Somervell made the status of the carrier's seaworthiness obligation clear. The status of the seaworthiness obligation is prior to the obligation of Care for Cargo, and the carrier's seaworthiness obligation is the overriding obligation. Ensuring the overriding status of the carrier's

seaworthiness obligation is the premise of the carrier's carrying out other obligations and liability exemption. Case law countries can directly invoke this principle to judge the value of the case.

Through the burden of proof allocation, the *Rotterdam Rules* made it clear that the carrier's seaworthiness and goods obligations are prior to liability exemptions. The fifth item in Article 17 of the *Rotterdam Rules* lightens the claimant's burden of proof. The claimant only needs to prove there is certain causation between the unseaworthiness of the ship and cargo damage. It is not impossible for the carrier to exempt from the liability for compensation. The carrier can do so by proving there is causation between the unseaworthiness of the ship and cargo damage, or he can prove he has carried out due diligence to make the ship seaworthy. Therefore, in the burden of proof, the carrier can plead against the opinion that the ship is unseaworthy by proving his due diligence. Overall, in the initial burden of proof, compared with the obligation of goods, seaworthiness obligation has a certain priority. But in the carrier's burden of proof, seaworthiness obligation and obligation of goods are equally important.

Thus, it can be concluded that the *Rotterdam Rules* changed the overriding obligation principle under the *Hague Rules* according to the international maritime practice. Compared with liability exemption, seaworthiness obligation and obligation of goods have the same important status, they both belong to the coordinate relationship and are prior to the liability exemption.

Chapter IV The influence of the carrier's whole seaworthiness obligation in the Rotterdam Rules on the China Maritime Code

The *Rotterdam Rules* defines the carrier's seaworthiness obligation as a full and persistent obligation. That complies with the actual development of international shipping and international trade. Also, it makes a new balance between the interests of the shipowner and the cargo owner. Also, it will bring about new prosperity to the international cargo transportation field. (Chan, W. 2009. pp.32-33) We must realize the progress of this international legislation and realize the necessity to modify the related content of the carrier's seaworthiness obligation in Chapter IV of *China Maritime Code*. Moreover, we must carry out relevant research and study in an active way to be well prepared for modifying and perfecting *China Maritime Code*.

4.1 The carrier's seaworthiness obligation in *China Maritime Code*

The seaworthiness obligation in *China Maritime Code* mostly refers to the carrier's due diligence. This is different from the overriding obligation guaranteed by British and American common law in nature. Article 47 of *China Maritime Code* makes such regulations on seaworthiness obligation. Before sailing and at the beginning of the voyage, the carrier should handle cautiously to make the ship seaworthy properly equipped with crew, ship equipment and supplies, and to make the holds, refrigerated cabin, cabin air-conditioning and other cargo spaces fit and safe for their reception, carriage and storage of goods. The seaworthiness obligation in *China Maritime Code* is only one of the carrier's obligations. If the carrier is in violation of the obligation of seaworthy, the consequences and responsibility and another breach of contract he should bear are measured according to the specific provisions of *China Maritime Code*. Also, he should deal with the resulting loss of or damage to the goods. In the

carrier's obligation, liability and exemption items, the fourth chapter of *China Maritime Code* is consistent with the *Hague Rules*. (He, Z. 2011. pp.36-27).

4.2 Advanced requirements on the obligation of seaworthiness by research and absorption of the *Rotterdam Rules*

From the Article 47 of *China Maritime Code*, it can be seen that the carrier shall make the ship seaworthy before sailing and at the beginning of the voyage. But the *Rotterdam Rules* extends the carrier's obligation of due diligence to the whole voyage. That will have an effect on the risk sharing between the carrier and the cargo owner. More accurately speaking, it will affect the risk sharing between the carrier and the insurer. It brings greater risk to the carrier, and thus increases the total transportation cost ratio of the cargo. Besides, it is thought that the provisions on the carrier's obligation of carrying the cargoes have fully embodied the continuous responsibility. (Chan, W. 2009. pp.15-17) Through the comparison between the two, we can see it's quite necessary to amend the obligation of seaworthiness in *China Maritime Code*.

4.2.1 From the aspect of international legislation

According to the trend of international legislation, the obligation of seaworthiness in *China Maritime Code* has been unable to connect with the international advanced legislation. International shipping technology has been developing, and the level of shipping keeps improving. These all have promoted international legislation to adjust so that it can adapt to and promote the progress of shipping practice. The *Hamburg Rules* abolished the exemption of nautical negligence and made an important step in

the balance of interests between the carrier and the cargo owner. Afterward, according to the development situation of shipping, the *Rotterdam Rules* abolished the nautical fault exemption. The *Rotterdam Rules* made explicit provisions that the carrier's seaworthiness obligation should be a whole and continuous obligation for the first time. These all show that international legislation has been adjusting on the basis of the development situation of international shipping. This is also consistent with the requirements of the continuous development of international legislation.

If any law wants to keep its advanced nature, it must continuously adjust according to the changes in material, social conditions. *China Maritime Code* is of no exception. Some provisions of *China Maritime Code* still focus on the protection of the carrier's interests. That undoubtedly doesn't meet the trend of international legislation. It is also not suitable for international shipping practice. Also, it is not instructive to the balance of the interests between the carrier and the cargo owner. China sets the position of shipping and trade country in a body, so *China Maritime Code* should align with the trend of international legislation and update the relevant provisions on the seaworthiness obligation. In these ways, the interests of the carrier and the cargo owner can reach a new balance. They can also promote the development of China's international goods transport industry and trade in goods and enhance the comprehensive national strength of our country.

4.2.2 From the aspect of international shipping practice

According to the practical perspective of international shipping, the shipping environment to which the seaworthiness obligation in *China Maritime Code* can adapt has changed. Navigation technology development, especially the perfection of ship positioning and tracking system make it possible for the carrier to bear the

whole seaworthiness obligation. On the premise that the carrier has performed due diligence when the ship meets risks and obstacles in the navigation process, it is possible to make the ship seaworthy again by timely and quickly eliminating dangers. It can be said that the progress of the maritime technology has promoted the full course of the obligation of the voyage. *China Maritime Code* could maximize its positive role in the era and environment of the *Hague Rules*. But it doesn't adapt to the development situation of international shipping in the 21st century. (Xie, L. 2009. pp.32) Under the background of globalization, none of the laws of any country can be spared. The world should pay attention to fully inclusive and equitable laws and regulations. The provisions of the seaworthiness obligation of *China Maritime Code* should also change with the development of international shipping practice. *China Maritime Code* should pay attention to absorbing advanced provisions of the whole seaworthiness obligation, which can make the interests of the carrier and the shipper reach a new equilibrium. That can promote the development of China's shipping industry. At the same time, it can establish China's right of speech in the international shipping market.

4.2.3 From the trend of the exemption of nautical fault liability

Under the circumstance that the exemption of the nautical fault liability has become the trend, the full course of the seaworthiness obligation will be the inevitable result. The *Rotterdam Rules* abolished the nautical fault exemption, which is the trend of the times. Not only is it in line with the international shipping practice and legislative trend, but also it makes the interests of the carrier and the cargo owner reach a new equilibrium to some extent. The carrier's due diligence obligation is a continuous obligation during the whole voyage, and it is suitable for all of the transport of goods. From the current state of international shipping, there are differences between the

marine equipment of the subject of international shipping and marine technology. The shipping management level is also uneven. Besides, the development of overall shipping body is in an unbalanced state. The condition that requires all the carriers carry out seaworthiness obligation during the whole voyage is not mature, and it's a bit harsh (Xie, L. 2009. pp.39). But in the long run of the development of the international shipping, the carrier's seaworthiness obligation during the whole voyage should be defined as a statutory and mandatory obligation to promote an equilibrium state between the shipowner and the cargo owner. This also promotes the shipping subjects that are relatively backward in the ship equipment and shipping management to improve shipping capacity and shipping management level actively. This is instructive to the overall development of the international shipping industry. *China Maritime Code* should also refer to the reasonable provisions in the whole course of the carrier's seaworthiness obligation to improve the overall level of the development of the carrier in China.

In summary, comprehensively considering the overall interests of China and legal maneuverability and unification and the prospect of international legislation, the author thinks China should take a positive attitude towards the latest provisions on the carrier's seaworthiness obligation. *China Maritime Code* should perfect provisions on seaworthiness obligation with a positive attitude. *China Maritime Code* should refer to the latest provisions of the *Rotterdam Rules* to amend and improve relevant provisions of Chapter IV. In this way, the seaworthiness obligation can be extended to the entire voyage.

Chapter V The influence of the carrier's whole seaworthiness obligation in the Rotterdam Rules on other maritime systems

In international maritime legislation, the *Rotterdam Rules* gives a new definition to the carrier's seaworthiness obligation. The carrier's seaworthiness obligation is clearly increased for the first time. That meets the development requirements of international carriage of goods by sea and has some influences on other maritime systems.

5.1 Influence of the whole seaworthiness obligation on nautical fault exemption

According to the *Hague Rules*, before sailing at the loading port and the beginning of the voyage, the carrier needs to deal cautiously with the ship to make it seaworthy. If the ship is unseaworthy and causes damage to goods during the voyage or at the dock port, the carrier won't be thought to disobey seaworthiness obligation in international shipping practice as long as he has no fault.

According to the requirements of the whole seaworthiness obligation, once the ship is unseaworthy during the voyage, the carrier has the responsibility to take measures to make the ship seaworthy again during the whole voyage. So, when unseaworthiness of the ship causes damage to goods, it is difficult for the carrier to invoke liability exemption. The cargo owner probably pleads for the following reasons. The carrier takes unreasonable procedures and causes loss and damage of goods. That means the ship is unseaworthy. In that case, the carrier can't invoke liability exemption. Because of the requirements of the whole seaworthiness obligation, the carrier can't invoke nautical fault exemption to avoid liability. (Jiang, Y. 2010. pp.331).

The *Rotterdam Rules* canceled terms of nautical fault exemption. This is the result of the whole seaworthiness obligation of the carrier. After that, during the whole voyage, the carrier must perform due diligence to make the ship seaworthy. That increases the risk and responsibility of the carrier. In maritime transport practice, modern shipbuilding and marine technology have made apparent progress. Besides, maritime transport legislation perfects itself according to actual situation. The chances of nautical fault of the captain and crew also decrease during the voyage. These all make the necessity of nautical fault exemption questioned for justice. The *Hamburg Rules* canceled relevant clauses of nautical fault exemption on the basis of actual international maritime practice.

5.2 Influence of the whole seaworthiness obligation on contribution to general average

A general average system emerged to encourage shipowner and cargo owner to take positive and active measures to eliminate mutual risk and reduce loss. Special expenses caused by special sacrifice and payment shall be reasonably assessed by a certain proportion by the beneficiary. In maritime practice, the marine negligence is often the cause of the general average.

The whole seaworthiness obligation may bring about the certain influence on the adjustment and development of the general average. When nautical fault causes common danger, it's a key factor of general average that shipowner and cargo owner should take positive and active measures to avoid danger. However, the cargo owner reserves the right to refuse to contribute the payment of a general average loss of the carrier. After the carrier's seaworthiness obligation is extended to a full course, in general, average accidents, it is difficult for the carrier to require the cargo owner to

contribute the general average loss. The role of general average is reduced on the whole, and this has a significant influence on the calculation and development of the general average.

Such a case may appear in maritime practice. If it is difficult for the carrier to require the cargo owner share most general average loss, this will have particular impact on the adjustment of the general average. The carrier spends a lot of manpower and material resources to calculate a general average statement. But except for claiming compensation from the insurance indemnity association, the general average statement is of little significance in other aspects. Therefore, it is necessary to change the rule of the general average to reduce the unnecessary adjustment and to save cost. In the long run, it's likely that the need for adjustment of the case will be significantly reduced, and the carrier may no longer ask for a general average adjustment.

5.3 Influence of the whole seaworthiness obligation on marine insurance system

After the carrier's seaworthiness obligation covers an entire course, the carrier has to bear the majority of the compensation liability for damage and loss of goods. The carrier has to undertake heavier obligations and greater risks. On one hand, to reduce the risks and responsibilities of the goods transportation, the contact between the carrier and the insurance indemnity association will become closer. Insurance for goods transport will also rise. The insurance indemnity association should make full preparations for this prediction and take various measures to improve the compensation ability to pay high compensation for major marine accidents. On the other hand, the carrier increases the responsibility of goods transport while the cargo

owner bears a reduced risk. The cargo owner may spend less on insurance to ensure the goods transport smooth. The marine insurance system under the *Hague Rules* will be affected. This is not only related to by whom and to whom the insurance is, but also related to who will bear the risk and responsibility for the problem. Also, the balance between the three will also be broken. (Kozolchky, B. 1999.)

The whole seaworthiness obligation of the carrier will also lead to the reduction of the payment rate of the goods insurer. For marine cargo insurance, the cargo owner can directly claim compensation from the carrier for most of the damage or loss during the voyage. The cargo insurer compensates for the part more than the limitation of liability. The whole seaworthiness obligation makes it difficult for the carrier to invoke liability exemption. (Kozolchky, B. 1999.) After the cargo insurer compensates for damage to goods, the cargo insurer will ask the carrier for more subrogation compensation. Therefore, the insurance rate of the cargo insurer will be reduced. On the other hand, as the risk of marine goods transportation is reduced, the investment of the goods insurance will also be reduced accordingly. In the long run, the insurance rate of goods insurance will also be cut down.

The *Rotterdam Rules* makes the latest adjustment, which will have a certain influence on the marine insurance system. That will have impact on the established balance of insurance market. The marine cargo insurance compensation rules and deductible provisions should adapt to the latest regulations of the *Rotterdam Rules* to solve cases of maritime damage dispute fairly and reasonably.

5.4 Influence of the whole seaworthiness obligation on the carrier's charging freight

The amount of freight charged by the carrier relies on many factors. But from an economic point of view, people should also see, in addition to considering the supply and demand relations in international shipping market, how much cost the carrier has to pay directly determines the amount of freight. After the carrier's seaworthiness obligation covers a full course, the carrier has to bear an increased risk and responsibility. For reducing the risk of the carriage of goods by sea and reducing the liability for damage of goods, the carrier will increase the insurance share of damage to the goods. The increase in insurance share may be added to the freight charged by the carrier to pursue the best interests of the carrier. (Wilson, J. 1998. pp.192)

Chapter VI Conclusion

The carrier's seaworthiness obligation is an important obligation of the carrier for the carriage of goods by sea. Whether it is performed or not, and the degree of performance not only relates to the safety of the carriage of goods by sea, but also it relates to the interests of the shipowner and the cargo owner. So, since the carrier's seaworthiness obligation was incorporated into the *Hague rules* for the first time, it has been fully affirmed and valued internationally. But with the development of science and technology, marine technology also has made a significant improvement. Traditional seaworthiness obligation laid too much emphasis on protecting the interests of the carrier. Gradually, the cargo owner, especially international trading powers questioned it. Under this premise, it is imperative to increase the requirement of the carrier's seaworthiness obligation. The *Hamburg Rules* abolished the exemption of nautical negligence, which reflected this trend of development. The *Rotterdam Rules*, adopted by The United Nations recently, clearly defined the carrier's seaworthiness obligation as a continuous obligation. The *Rotterdam Rules* extended the carrier's seaworthiness obligation to the whole voyage.

This paper discusses the carrier's seaworthiness obligation under the *Rotterdam Rules* in detail. After the carrier's seaworthiness obligation is extended to the whole voyage, the carrier's responsibilities, and obligations increase. It caused a certain effect on the carriage of goods by sea but also played a certain positive significance in balancing the interests of the shipowner and the cargo owner. In the allocation of the burden of proof, relevant provisions in the *Rotterdam Rules* tend to protect the interests of the carrier for balancing interests of both sides. Facing these changes and impacts, China should also actively think about how to respond and take its position.

Therefore, through the analysis of the influence of the applicable new requirements of China and overall consideration of various factors, the author thinks that, as a big shipping country and trade power, China should correspond with the trend of other states and international shipping industry on the carrier's seaworthiness obligation. And it should also adapt to this change and continuously perfect relevant systems, revise and improve relevant provisions in the *China Maritime Code* as soon as possible. That can create a suitable environment for the carrier's applicable seaworthiness obligation and make China's shipping industry and trade industry more international, advanced and scientific.

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