

**THE ELECTRONIC BILL OF LADING:
A LEGAL PERSPECTIVE**

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By

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“I can do all things through Christ which strengthens me.”

LIST OF ABBREVIATIONS

| | |
|-------|--|
| JILT | Journal of Information Law and Technology |
| STDA | Sea Transport Documents Act |
| BBL | Bolero Bill of Lading |
| ECTA | Electronic Communications and Transactions Act |
| FIATA | International Federation of Freight Forwarders Association |

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1 Introduction

The bill of lading is traditionally the most important transport document and plays an unparalleled role in international sales.¹ The bill of lading was developed as a product of mercantile convenience and soon became the cornerstone of effective international trade, recognised by the courts as a document of dignity, the integrity of which demanded judicial protection.²

English law recognised that the bill of lading performs three main functions. These three functions are: a receipt for the shipment of cargo; evidence of the contract of carriage; and a document of title.³ These functions are applicable to this day. One of the principal purposes of the bill of lading is that it enables the owner of the goods to dispose thereof while such goods are in the custody of the carrier.⁴ This is referred to as the negotiability of the bill of lading.

The 'Hamburg Rules'⁵ defines a bill of lading, in Article 1 thereof, as follows:

"'Bill of lading' means a document which evidences a contract of carriage by sea and taking over or loading of the goods by the carrier, and by which the carrier undertakes to deliver the goods against surrender of the document. A provision in the document that the goods are to be delivered to the order of a named person, or to order, or to bearer, constitutes such an undertaking."⁶

Since the early 1950's the shipping industry has experienced a revolution in the international carriage of goods.⁷ Technological advances in the field of maritime commerce, including faster ships and containerized cargo processing, provided momentum for the revision of transport documentation procedures and the

1 Proctor C *The Legal Role of the Bill of Lading* x.
2 Hare J *Shipping Law and Admiralty Jurisdiction in South Africa* 540.
3 Hare (note 2) 541.
4 Schmitthoff C *Schmitthoff's Export Trade* 345.
5 *United Nations Conference on the Carriage of Goods by Sea* 1978.
6 Mitchelhill A *Bills of Lading Law and Practice* 4.
7 Proctor (note 1) xi.

adoption of electronic bills of lading.⁸ As a result of these technological advances, goods arrived at the port of destination much quicker while the traditional bill of lading still moved at a slow pace.⁹ The traditional bill of lading moved too slowly to be available at the port of destination to facilitate the lawful delivery of the goods to the party entitled to them. The reasons for the slow movement of the bill of lading are twofold being firstly that long and complicated banking procedures slowed the movement of the bill of lading while secondly the actual speed of transport of the goods increased due to containerization, multimodal transport and more effective working procedures.¹⁰ A further important consideration lies therein that the bill of lading is only issued once the cargo is loaded on board the vessel, thus making it the last document to be issued in the export transaction, while it is the first document required in the import transaction.¹¹ The practice of delivering the goods to a party, claiming that he will become the lawful holder of the bill of lading on its arrival, against a letter of indemnity or bank guarantee claiming to protect the carrier against liability, developed as a result of the slow movement of the traditional bill of lading.¹² This practice can however not be sustained as the transferability function of the bill of lading could be jeopardized leaving buyers and banks to face an insolvent seller's creditors.¹³

The development of electronic commerce and the electronic bill of lading has placed great challenges on lawyers and law makers.¹⁴ Electronic commerce can be defined as business conducted over the Internet or applications relying on the internet, such as e-mail, instant messaging, shopping carts, web services or EDI.¹⁵ The fact that not only data but the rights to goods being shipped are transferred electronically creates certain legal questions with regard to the

⁸ Girvin S *Carriage of Goods by Sea* 158.
⁹ Girvin (note 8) 158.
¹⁰ Gehrke F *New Attempts at Electronic Documentation in Transport* 4.
¹¹ Dubovec *Arizona Journal of International & Comparative Law* 445.
¹² Proctor (note 1) 145.
¹³ Proctor (note 1) 146.
¹⁴ Hare (note 2) 568.
¹⁵ Brint 2009 <http://www.portal.brint.com>.

transferability as well as the authenticity thereof. The shipping industry has met the challenge of using the electronic bill of lading by means of two different approaches: the first is to convert an existing 'visible' form bill of lading to an electronic format, and then provide storage and exchange facilities to those who chose to 'deposit' their bills of lading with an independent agency operating the depository. Examples of such systems are SeaDocs and BOLERO. The second approach is to look to the 'functional equivalent' of the existing written bill of lading, and provide an alternate electronic methodology to achieve the same purpose.¹⁶ The electronic bill of lading compiles a small part of electronic commerce as a mode of business practice.¹⁷ In the electronic sphere, different systems exist, such as data alignment systems, registry systems and making use of EDI, all of which would constitute an electronic bill of lading. This change from paper documentation to electronic documentation has been equated to a revolution in which the shipping industry currently finds itself.¹⁸

This study will first briefly consider the history and development of the bill of lading. Secondly, the three functions of the bill of lading will be researched. A criteria will be established, setting out the requirements an electronic bill of lading would have to meet to fulfill the functions of the original paper bill of lading and it will then be determined whether these functions are adequately addressed by different provisions and systems for electronic bills of lading. In this regard, this study will explore how the functions of the bill of lading are addressed by the UNCITRAL Model Law on Electronic Commerce, The CMI Rules for Electronic Bills of Lading, Bolero and Seadocs in the international realm. This focus will then shift to the relevant South African legislation with reference to the Sea

¹⁶ Hare (note 2) 569 - 570. The two different approaches are describes by Hare as follows: to convert existing bills of lading into electronic format, providing storage and exchange facilities, to 'deposit' a bill of lading, with an independent agency operating the depository or to look to the functional equivalent of the written bill of lading and provide an alternate electronic methodology to achieve the same purposes.

¹⁷ Hare (note 2) 467.

¹⁸ Gehrke (note 10) 1.

Transport Documents Act and the Electronic Communications and Transactions Act.

A comparison will further be made, comparing the different systems providing for electronic bills of lading as well as South African legislation, to the criteria that such systems or legislation would have to meet to adequately fulfill the functions of the traditional bill of lading.

Finally an evaluation and conclusion will be made.

2 The traditional bill of lading

2.1 The history and development of the bill of lading

The earliest laws of maritime jurisdiction are believed to be the Rhodian Sea Laws and it is thought that these laws date as far back as 900BC.¹⁹ During the 11th century, in the time of the great commercial cities of the Mediterranean, the law merchant gave rise to the pattern of modern commercial shipping.²⁰

According to Hare,²¹ the origins of the bill of lading are quite obscure but are presumed to have developed from the earliest practices of recording details of merchandise placed in the care of the master of a vessel as carrier bailee. As disputes arose between shippers and ship's masters, regarding the exact nature and quantity of goods delivered on board, the need for evidence of delivery increased.²² The master was therefore required to take on board a clerk who would enter into a register a record of the goods received for shipment. According to Du Toit²³ the clerk would be sworn to an oath of fidelity and was an essential member of the crew, in rank second only to the master of the ship. This register was to be evidence of the receipt of the goods.²⁴

The requirement that every master must take on board a clerk is mentioned in *The Ordonnance Maritime of Trani*²⁵ of 1063, referring to the ships book or register, being one of the earliest references to the keeping of records of goods loaded on board ships.²⁶ Another such early document was mentioned by the French writer Desjardins in his *Droit Commercial Maritime* stating that the *Le*

¹⁹ Proctor (note 1) 19.

²⁰ *Ibid.*

²¹ Hare (note 2) 540.

²² Proctor (note 1) 21.

²³ Du Toit *Fundamina University of Johannesburg* 16.

²⁴ *Ibid.*

²⁵ Hare (note 2) 7: *The Decisions of the Consuls of the Sea of the City of Trani*, on the Adriatic Gulf was the first significant collection of maritime precedents covering a wide range of maritime topics.

²⁶ Mitchelhill (note 6) 1.

Fuero Real of 1255 required owners of ships to 'cause to be enrolled in the register all the articles put on board ships, giving their nature and quantity'.²⁷ In 1397 the City of Ancona passed legislation, requiring every clerk to provide a copy of his register to those who had a right to demand it, marking the beginning of the bill of lading as a separate and independent document.²⁸ These details of cargo were prepared by an on – board scribe or clerk and this written certification became more significant when merchants abandoned sailing with their goods, especially when the scribe began to issue the merchants with copies of the register extract which recorded the loading of the goods on board the ship²⁹. This extract, known as the *apertum scriptum* is argued to be the earliest origin of the bill of lading.³⁰

In these early stages the bill of lading was already fulfilling two of its three functions found today. It was used as a receipt for the goods being shipped and thus served as evidence of the contract of carriage. According to Hare³¹ it is the third function that grants the bill of lading its mystique. The fact that the bill of lading is a document of title, enabling merchants to trade the goods whilst *en voyage*,³² make this document unique from all other transport documents.

The need to transfer the title in the goods before they arrived at their destination was brought about by the spread of commerce and the increasing complexity of business.³³ This function arose with the development of international trade when consignors no longer traveled with their goods to sell them at a distant port, but merely consigned goods, that were already sold, to the buyer at that port.³⁴ The bill of lading therefore served as a transferable document of title in cases where

27

Ibid.

28

Proctor (noe 1) 23.

29

Hare (note 2) 541.

30

Ibid.

31

Hare (note 2) 540.

32

Ibid.

33

Mitchelhill (note 6) 1.

34

Van Niekerk JP & Schulze *The South African Law of International Trade* 113.

the consignor required transfer of possession and ownership in the cargo while it was still in transit.³⁵ It therefore became imperative to endorse the bill of lading to a third party in order to affect transfer of the goods leading to the development of the bill of lading into a negotiable instrument.³⁶

The case of *The Thomas* in 1538 is regarded to contain the earliest copy of a bill of lading from which it is clear that property in the goods could be assigned before delivery thereof.³⁷ From the records of the Admiralty Court it is clear that, by the 16th century, the bill of lading was a document of title to goods at sea with which the right to demand the goods could be assigned to another.³⁸ The case of *Snee v Prescott*³⁹ was the first reported case which mentioned endorsement in connection with the assignment of a bill of lading showing that the practice was well established by the 18th century and that the negotiable bill of lading was in common use.⁴⁰ It is as a direct result of the custom, found in the case of *Lickbarrow v Mason*⁴¹, that the bill of lading is derived as being a negotiable and transferable document by endorsement and delivery therefore capable of transferring title to the goods.⁴² As a document of title, the bill of lading includes the right to claim delivery of the goods at the port of destination as well as the right to control the goods in transit or while in custody awaiting transit or delivery.⁴³

Substantiated by the above segment of history, it becomes clear that the 'modern' paper based bill of lading, did not appear suddenly but developed gradually⁴⁴ as a result of mercantile convenience and usage by trade merchants. The functions of the bill of lading also developed along with the bill over a

³⁵ Van Niekerk & Schulze (note 34) 114.
³⁶ Holtzhausen *Electronic Bills of Lading* 4.
³⁷ Proctor (note 1) 25.
³⁸ *Ibid.*
³⁹ *Snee v Prescott* [1743] 1 Atkyns 245.
⁴⁰ Mitchelhill (note 6) 1.
⁴¹ *Lickbarrow v Mason* (1787) 2 Term Rep 63 KB.
⁴² Proctor (note 1) 25.
⁴³ Proctor (note 1) 27.
⁴⁴ Du Toit (note 23)15.

number of centuries. It is these functions which provide the bill of lading with its essential character, resulting in a document of such magnitude in relation to international trade, that without it modern trade and commerce would surely not exist as we know it.

2.2 The primary functions of the traditional bill of lading

2.2.1 Receipt for the shipment of cargo

As mentioned above clerks, aboard ships, began to issue merchants with receipts for goods loaded on board when the merchants abandoned the custom of traveling with their goods. The original function of the bill of lading was therefore for it to be a receipt, given to and kept by a merchant, for the goods loaded on board a ship for shipment. This constituted an admission by the ship's master that the consignor's goods had been placed on board the ship for transport to the agreed destination.⁴⁵ Van Niekerk & Schulze⁴⁶ describe the bill of lading as a documentary receipt acknowledging the delivery of the goods as described therein, to the carrier.

According to Girvin⁴⁷ at common law the original function of the bill of lading was that it was a receipt for the goods and contained statements as to quantity, condition and often a description of the goods received for shipment. This benefited the shipper as the goods, delivered at the port of destination, had to exactly match the receipt issued therefore at the port of shipment. It further prevented the carrier from claiming previous damage, if the goods were in an inadequate condition when delivered to the consignee.⁴⁸ If goods were therefore received in a lesser condition or quantity the shipper could hold the carrier liable for such loss or damage. A carrier, unable to deliver the quantity of goods stated

⁴⁵ Proctor (note 1) 42.

⁴⁶ Van Niekerk & Schulze (note 34) 111.

⁴⁷ Girvin (note 8) 61.

⁴⁸ Holtzhausen (note 36) 8.

in the bill of lading or who delivered damaged goods, stated to have been shipped in good condition, would however not be liable to the shipper if he was able to prove that he only received a smaller quantity of goods or that the goods were already damaged at the time of shipment.⁴⁹ This was the case in *Plywoods Ltd v Thesen's Steamship Co Ltd*,⁵⁰ where the carrier was able to prove that 250 logs were in fact loaded on board the vessel and not 267 logs, as stated in the bill of lading.⁵¹

With regard to South African law, Article III Rule (4) of the Carriage of Goods by Sea Act⁵² states that "a bill of lading shall be *prima facie* evidence of the receipt by the carrier of the goods as therein described". The carrier is therefore bound to deliver the goods at the port of discharge "in a like good order and condition".⁵³

International conventions are based on the principle that the bill of lading is conclusive evidence if it has been transferred to a third party acting in good faith.⁵⁴ In terms of the Hague – Visby Rules⁵⁵ the statements in the bill of lading constitute *prima facie* evidence of the receipt by the carrier of the goods as described therein, while the Hamburg Rules⁵⁶ state that the bill of lading constitute *prima facie* evidence against the carrier of the taking over or the loading of the goods.⁵⁷

As a receipt, the bill of lading may attest to the quantity, condition and to some extent the quality of the goods shipped.⁵⁸ Where such documents are received in exchange for goods, such representations as to the nature of the goods received by the issuer of the document have important commercial effects and

⁴⁹ Proctor (note 1) 44.
⁵⁰ *Plywoods Ltd v Thesen's Steamship Co Ltd* 1955 (4) SA 491 (C).
⁵¹ Van Niekerk & Schulze (note 33) 112.
⁵² Carriage of Goods by Sea Act 1 of 1986.
⁵³ Hare (note 2) 543.
⁵⁴ Dubovec (note 11) 441.
⁵⁵ Hague Visby Rules 1968.
⁵⁶ The Hamburg Rules (note 5).
⁵⁷ Proctor (note 1) 44.
⁵⁸ *Ibid.*

will constitute the basis of the receiver's cargo claims where goods are delivered in a damaged condition.⁵⁹

2.2.2 Evidence of the contract of carriage

Dubovec⁶⁰ states that authorities and courts have expressed different opinions as to whether the bill of lading is the contract of carriage or mere evidence of the contract. In either capacity it does anchor the contractual liabilities and obligations of the parties.

The contract of carriage is concluded, between the consignor of the goods and the carrier, prior to the signing of the bill of lading. The bill of lading is ordinarily issued after the goods have been loaded, and such loading occurs in terms of the contract of carriage.⁶¹ According to Hare⁶² it is trite law that the bill of lading is good evidence of the contract of carriage. The bill of lading is therefore *prima facie* evidence of the contract of carriage concluded earlier.⁶³

It was stated by Lush LJ in the case of *Crooks v Allen* that⁶⁴:

"a shipper has a right to suppose that his goods are received on the usual terms, and to require a bill of lading which shall express those terms."⁶⁵

The back of most standard bills of lading show printed details of the contractual terms or contain a reference to the "long form" bill in which they appear in full.⁶⁶ Upon the premise that the bill of lading was a recordal of the actual contract of carriage, a shipper would be at liberty to complain when receiving a bill of lading

⁵⁹ Proctor (note 1) 42.
⁶⁰ Dubovec (note 11) 441.
⁶¹ Van Niekerk & Schulze (note 34) 113.
⁶² Hare (note 2) 549.
⁶³ Van Niekerk & Schulze (note 34) 113.
⁶⁴ Girvin (note 8) 75.
⁶⁵ *Crooks v Allen* 1879 5 QBD 38 (CA) 40.
⁶⁶ Proctor (note 1) 53.

which terms do not reflect the true agreement between the parties.⁶⁷ For the shipper however the bill of lading does not constitute the contract of carriage but only provides evidence thereof.⁶⁸ It can therefore be described that the bill of lading is technically a statement by the carrier of his view of the terms of the contract of carriage.⁶⁹

When the bill is transferred to a third party it becomes the complete contract⁷⁰ between such a third party and the carrier and its contents cannot be challenged as it becomes evidence of the terms of the contract of carriage.⁷¹

Because a computer printout, of an original agreement, would only constitute a copy of such original, legal issues arise which inevitably must be resolved before electronic bills of lading, and like documents, can be accepted in the shipping industry.⁷² In this regard, some of the primary legal issues include the formalities of contracts such as writing, signatures and the admissibility of computer records as evidence.⁷³

In order for a bill of lading to be utilized as evidence of the contract of carriage, it must therefore accurately reflect the agreement between the parties. The bill of lading would in effect, constitute a recordal of the actual contract of carriage.⁷⁴

2.2.3 Document of title

According to Hare⁷⁵ the mystique surrounding the bill of lading flows largely from its third, and main, function, namely the ability to serve as a means of passing title to the cargo which it describes.

⁶⁷ Hare (note 2) 549.
⁶⁸ Proctor (note 1) 53.
⁶⁹ Proctor (note 1) 54.
⁷⁰ Hare (note 2) 550.
⁷¹ Proctor (note 1) 54.
⁷² Holtzhausen (note 36) 55.
⁷³ *Ibid.*
⁷⁴ Hare (note 2) 549.

In South African law possession a prerequisite for the passing of ownership. The transfer of possession is therefore the key to the passing of ownership in the goods.⁷⁶ A further prerequisite for the passing of ownership is the intent of the parties.⁷⁷ Possession may be passed without passing ownership or *vice versa* depending on the intent of the parties.

As the passing of ownership in the goods is determined by the contract between the parties the bill of lading is regarded in law as the symbolic equivalent of the goods themselves so that transfer of the bill is the legal equivalent of the physical transfer or delivery of the goods.⁷⁸ In the case of *Garavelli and Figli v Gollach and Gomperts, Boshoff*⁷⁹ J stated that:

“During the period of transit and voyage the bill of lading is, by the law merchant, recognised as the symbol of the goods described in it, and the endorsement and delivery of the bill of lading operates as a symbolic delivery of the goods.”

The bill of lading as a document of title results in three uses for the bill: firstly a bill of lading may be used in the course of passing ownership of the goods; secondly it is confirmation of the right of possession and of physical control over the goods; and lastly a bill of lading may be used as security for lenders.⁸⁰

The transfer in the ownership of the goods is performed by endorsing the bill of lading to a third party who then becomes the legal holder of the bill of lading.⁸¹ In this regard reference must be made to the title being so transferred as Hare⁸² states that the endorsee of a bill of lading can get no better title than the transferor. As the same title in the goods are transferred by the bill of lading to the holder thereof, such a person would be entitled to present the bill for

⁷⁵ Hare (note 2) 550.

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*

⁷⁸ Van Niekerk & Schulze (note 34) 114.

⁷⁹ *Garavelli and Figli v Gollach and Gomperts* (Pty) Ltd 1959 (1) SA 816.

⁸⁰ Dubovec (note 11) 449.

⁸¹ Muthow E The Impact of Bills of Lading 19.

⁸² Hare (note 2) 552.

collection of the goods thereby obtaining possession of the goods and becoming the owner thereof.

In the case of *Lickbarrow v Mason* (hereafter referred to as the *Lickabarrow* – case) it was decided that the bill of lading has a proprietary function, but to reach this decision the court had to review the issue of negotiability to determine whether the bill of lading was a negotiable document of title.⁸³ The House of Lords suggested that the bill of lading was indeed considered a document of title and a negotiable instrument by virtue of the customs of merchants.⁸⁴ A document is considered negotiable when it is capable of transferring ownership in goods. Vieira⁸⁵ states that, to be considered as a negotiable instrument, a document must have three essential characteristics. These are firstly, any holder or bearer must be able to bring an action to enforce such a document; secondly, such a document must be transferable from one person to another and thirdly, a bona fide transferee who takes for value an instrument that is complete and regular on its face becomes a “holder in due course”.

The treatment granted to the bill of lading in the *Lickbarrow* - case⁸⁶ as a negotiable instrument was in fact related to its quality of “transferability”. In this regard a bill of lading is not a negotiable instrument in the real sense of the term and therefore its electronic equivalent can also not be a real negotiable instrument.⁸⁷ As the bill of lading was considered “negotiable”, due to the fact that it was accepted as a commercial custom, an electronic bill of lading should similarly be accepted as such to be considered “negotiable”.⁸⁸

⁸³ Vieira *Electronic Bills of Lading* 12.

⁸⁴ *Lickbarrow v Mason* (1787) 2 Term Rep 63 KB.

⁸⁵ Vieira (note 83) 12.

⁸⁶ (1787) 2 Term Rep 63 KB

⁸⁷ Vieira (note 83) 13.

⁸⁸ Following the action taken by the court in the *Lickabarrow* – case, an electronic bill of lading can therefore only be established as being negotiable by a competent court, declaring it as a commercial custom.

According to Holtzhausen⁸⁹ the fact that the bill of lading is a document of title presents the biggest obstacle in the implementation of the electronic bill of lading. Livermore⁹⁰ states further that the important function of the bill of lading as a document of title to the goods shipped is not easily incorporated in electronically generated documents.

2.3 The criteria for the electronic bill of lading

In order to be able to determine if an electronic bill of lading can fulfill the functions of the traditional bill of lading, and therefore be employed for operational use in international sales transactions, certain criteria must be established. Systems, such as the UNCITRAL Model Law, for example, could then be measured against this criteria to establish whether the necessary requirements, to operate as an effective, practical and usable bill of lading, have been fulfilled.

2.3.1 Receipt for the shipment of cargo

As described above the first function of the bill of lading is that it is a receipt, issued by the carrier to the shipper, for the goods received by the carrier. It is therefore an admission by the carrier that he has received the goods and further indicates the quantity and condition of the goods. It seems therefore that one can accurately conclude that in order to fulfill this function a receipt of some kind, whether in electronic form or otherwise, must be provided by the carrier to the shipper. The purpose of this receipt is to enable the receiver of the goods to obtain the same amount and quality goods from the carrier, as was delivered by the shipper thereof, thus acting as evidence of such facts.

⁸⁹

Holtzhausen (note 36) 15.

⁹⁰

Livermore 1998 http://elj.warwick.ac.uk/ilt/ecommm/98_2liv/.

The criteria in this instance would therefore be twofold:

1. A receipt of some kind must be issued by the carrier to the shipper; and
2. Such a receipt must enable the receiver of the goods to firstly obtain possession of the goods and secondly ascertain that the goods received are as they were delivered.

2.3.2. Evidence of the contract of carriage

The contract of carriage is concluded between the consignor of the goods and the carrier thereof. The bill of lading is usually issued after the loading of the goods has taken place. Again it is obvious that a receipt needs to be issued by the carrier but the further requirement in this regard is that the receipt must reflect the terms and conditions of the contract of carriage, therefore providing evidence of the contract. Such evidence is provided should any incongruity arise between the parties.

The traditional bill of lading contained, on the back thereof, the terms and conditions of the contract of carriage, or at least reference thereto. It can therefore be said that such terms and conditions or reference thereto must be visible on the actual receipt.

To meet the requirement of evidencing the contract of carriage, the criteria for the bill of lading holds the following conditions:

1. A receipt of some kind must be issued by the carrier to the shipper; and
2. Such a receipt must contain visible evidence of the contract of carriage or a reference thereto.

2.3.3 Document of title

The importance of the bill of lading lies therein that it enables the holder thereof to pass ownership in the goods to a third party. From the case of *Garavelli and Figli*⁹¹ above, it is clear that the bill of lading acts as a legal representation of the goods and therefore transfer of the bill equals a transfer of ownership of the goods.

For a shipper, however, to be able to transfer the bill of lading to a third party, he must endorse such a bill in some way to such third party. The endorsee will then obtain the same right to the goods as the transferring party had.

With regard to negotiability the House of Lords reasoned that the bill of lading is indeed a document of title. A bill of lading is however not a negotiable instrument in the real sense of the term but was afforded its status as a document of title by the House of Lords in the *Lickbarrow - case*⁹² due to the fact that negotiating a bill of lading in such a manner had become commercial practice and custom.

To measure up to this criterion, the bill of lading would need to comply with the following conditions:

1. A receipt of some kind must be issued by the carrier to the shipper;
2. The party wishing to transfer the bill must be able to endorse it to a third party; and
3. The bill of lading, in whatever form and especially the transferring process must be established as a commercial custom amongst merchants.⁹³

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Garavelli and Figli v Gollach and Gomperts (Pty) Ltd 1959 (1) SA 816.

⁹²

(1787) 2 Term Rep 63 KB.

⁹³

Because of the fact that goods could be transferred through the transfer of a bill of lading, and that this was established as a commercial custom, the court in *Lickbarrow v Masson* conferred the status of a document of title on bills of lading. For electronic documents to similarly be regarded as documents of title the same criteria must apply, and therefore the 'status' of a document of title must be conferred thereon by a competent court.

2.3.4 Conclusion

The criteria which any electronic bill of lading would need to comply with can be depicted as follows:

1. A receipt or document, of some kind and in whatever form, must be issued by the carrier to the shipper;
2. with the document, the receiver of the goods must be able to ascertain that the goods received are in the same condition and quantity as when the goods were loaded on board the carrier vessel;
3. the document must contain visible evidence of the contract of carriage or a reference thereto;
4. the party wishing to transfer the bill must be able to endorse it to a third party; and
5. The bill of lading, in whatever form, and the transferring process must be established as a commercial custom amongst merchants.

The attempts to establish or provide for electronic bills of lading will hereafter be viewed against this criteria to ascertain whether or not such systems or rules can fully accommodate the functions of the bill of lading in theory and in practice.

The final requirement, in this criteria, seems to be the most difficult to comply with as traditional bills of lading has been around for hundreds of years. This increases the intricacy of establishing the use of bills of lading as a commercial custom, while electronic bills of lading have not yet reached a stage where it can be regarded as having the same prestige. In this regard, it might seem to be unfair to expect an electronic bill of lading to measure up to these harsh criteria. If considering that it was the practice of transferring goods, by transferring a bill of lading, which was seen as commercial custom by the court, any such transfer by electronic means would in essence constitute a similar but different practice. Such practice would therefore have to establish itself as custom before it could

be regarded as a document of title. The functions of an electronic bill of lading must therefore fulfill the objectives of such a practice to be successful. The systems and rules evaluated below will be held against this assumption.

3 The electronic bill of lading

3.1 *The history and development of the electronic bill of lading*

The electronic bill of lading developed out of a need to remedy the problems experienced in modern trade whilst using the traditional paper – based bill of lading. As mentioned above problems were experienced in the slow movement of the paper based bill of lading. A further problem is the paper trail generated by the use of printed bills of lading which are both costly and slow.⁹⁴ Chandler⁹⁵ states that the real target, of the implementation of electronic documents, is the electronic transmission and negotiation of negotiable bills of lading in systems that will also handle all of the shipping documents, without generating any paper.

In the 1960's efforts were made to unify and simplify standard shipping documents such as bills of lading, invoices and packing lists so that all could be run from a common "master", rather than each having to be typed separately.⁹⁶ According to Proctor⁹⁷ the greatest impediment to the efficient transportation of goods between countries is the need to physically move the bill of lading from the exporting to the importing country. Solutions to the problem have been found in the simplification and standardisation of documents, localising documents at a central registry and speeding up the transmission of documents by the use of electronic data processing.⁹⁸

As mentioned above the business of buying and selling products and services through electronic means is described as electronic commerce. Different systems exist through which the exchange of documents may take place in facilitating such electronic business transactions. There is, for example, a system called SWIFT, which is in common use by the banking industry for the

⁹⁴ Hare (note 2) 568.

⁹⁵ Chandler *Journal of Maritime Law and Commerce* 571.

⁹⁶ Chandler (note 95) 572.

⁹⁷ Proctor (note 1) 146.

⁹⁸ *Ibid.*

communication of commercial letters of credit to and from banks worldwide.⁹⁹ A bill of lading, issued in electronic format, will comprise an electronic bill of lading regardless of the system under which the document was issued.

Different systems or rules have been developed to facilitate the use of electronic bills of lading. These are the SeaDocs Registry System, the CMI Rules for Electronic Bills of Lading, the UNCITRAL Model Law on Electronic Commerce and the Bolero project. In this regard EDI is of the utmost importance as it serves as the catalyst for the transfer of documents in electronic format.

For the purposes of this paper the functions of the bill of lading will be discussed in relation to the transmission of such documents by means of electronic data interchange (hereafter referred to as EDI) as provided for by the CMI Rules for Electronic Bills of Lading¹⁰⁰ and the UNCITRAL Model Law on Electronic Commerce¹⁰¹.

3.1.1 Electronic Data Interchange (EDI)

In the explanation of the working of electronic bills of lading it is necessary to briefly understand what EDI entails.

EDI has been defined by Eiselen¹⁰² as:

“The electronic interchange of machine processable, structured data, which has been formatted according to agreed standards and which can be transmitted directly between different computer systems with the aid of telecommunication interfaces.”

⁹⁹ Girvin (note 8) 157.

¹⁰⁰ Committee Maritime International Rules for Electronic Bills of Lading 1990.

¹⁰¹ United Nations Commission on International Trade Law Model Law on Electronic Commerce 1996.

¹⁰² Eiselen *South African Mercantile Law Journal* 1.

Gehrke¹⁰³ explains that in the working of EDI, a message is sent from one computer to another via a connection, usually a telephone line. In order for EDI to function a combination of technology and management recourses is necessary to ensure that the data is transmitted correctly and accurately between computers. The parties therefore need to ensure that the correct software is utilized to transmit the internal data format to an acceptable EDI format. In this regard parties sometimes make use of third party networks.¹⁰⁴ If both computers use the same standard no problems should occur and the message is available on the receiving computer in the same condition as it was sent. If the computers do not use the same standard a Value Added Network (VAN) Service Provider plays a role as a translator between the standards so that the usage of different standards has no influence on the message which has been transferred.¹⁰⁵

The ultimate goal of EDI is the creation of a multi-user system which links carriers, shippers, banks and forwarders in a single network and the achievement of a fully integrated electronic process to move an international cargo without generating paper documents.¹⁰⁶

When EDI is used in the shipping industry a bill of lading can be transferred electronically by means of EDI as explained above. An electronic bill of lading is created by a carrier by way of a transmission to the shipper containing the information traditionally contained in the bill of lading. This transmission further provides the shipper with a so called 'private key' to be used in subsequent transmissions which is an agreed code for securing the authenticity and integrity of a transmission.¹⁰⁷

EDI is therefore the method whereby data can be transferred electronically but to function effectively in an international trading environment it has to be

¹⁰³ Gehrke (note 10) 9.
¹⁰⁴ Muthow *The Impact of EDI on Bills of Lading* 6.
¹⁰⁵ Gehrke (note 10) Transport 9.
¹⁰⁶ Proctor (note 1) 150.
¹⁰⁷ Van Niekerk & Schulze (note 34)124.

incorporated into an acceptable legal framework.¹⁰⁸ With reference to the above system¹⁰⁹, the primary functions of the bill of lading will be discussed below and how each is provided for by means of electronic bills of lading.

3.2 Legal issues: Authenticity and signature

The traditional bill of lading functions as proof of the contract of carriage and proof that the holder thereof is entitled to the goods. The question that arises is how will this function be fulfilled if the document is in an electronic format when the normal formalities required by a contract begs fulfillment?¹¹⁰ Issues to be considered in this regard is the determination of the authenticity of the document and analogous to this the signature thereof.

3.2.1 Authenticity and signature

Any system providing for the use of electronic bills of lading can only be successful if the users thereof have confidence therein.¹¹¹ Such confidence will only be satisfied if the users have faith in the authenticity of the document and therefore the system.

The most common form of authentication is a signature on the document concerned indicating the parties' intention to be legally bound. Concerns in this regard are addressed by the use of 'electronic signatures'.¹¹²

A move toward electronic signature and authentication was made by the Hamburg rules¹¹³ stating that:

108 Holtzhausen (note 36) 41.
109 The system referred to is EDI.
110 Holtzhausen (note 36) 55.
111 Holtzhausen (note 36) 58.
112 *Ibid.*
113 Hamburg Rules (note 5).

"Signature on the bill of lading may be in handwriting, printed in facsimile, perforated, stamped, in symbols, or made by any other mechanical or electronic means, if not inconsistent with the law of the country where the bill of lading is issued"

When using EDI, a message is usually accompanied by a name and an access code or other means of identification, documenting the source's intent to authenticate the transmission.¹¹⁴ Digital signatures involve the use of cryptography which is defined as:

"The science of converting data into apparent nonsense and later translating it back again into its original form, all in a controlled way"¹¹⁵

Digital signature, by means of cryptography, enables the identity of the sender as well as the authenticity of the electronic document to be confirmed as they are unique to the sender and the message sent.¹¹⁶

Several different methods exist whereby digital signatures can be utilized which vary from quite simple to very complicated methods. The process of obtaining a digital signature involves an application for the issue of a digital signature while the use thereof involves the use of both 'public' and 'private' keys. It is clear that authenticity and the use of electronic signatures are very important to the functioning of electronic bills of lading. This study will, however not delve further into this aspect as the focus is to remain on the principal functions of the bill of lading and their possible duplication in electronic formats or systems.

¹¹⁴ Holtzhausen (note 36) 60.

¹¹⁵ *Ibid.*

¹¹⁶ *Ibid.*

4 International instruments: The functions of the bill of lading as provided for by the UNCITRAL Model Law on Electronic Commerce, the CMI Rules for Electronic Bills of Lading, Bolero and Seadocs.

4.1 The UNCITRAL Model Law on Electronic Commerce

UNCITRAL is the United Nations Commission on International Trade Law established to harmonise and promote international trade. The United Nations established the Model Law on Electronic Commerce in 1996 to enhance the use of paperless communication.¹¹⁷ The Model Law is not a source of law but a set of regulations to consider for states intending to create such law on electronic commerce.¹¹⁸

UNCITRAL identified several legal aspects important to electronic communications such as: the legal value of computer records as evidence; the requirement of writing and the electronic transmission of bills of lading.¹¹⁹

Article 1 of the Model Law determines the scope of application thereof. In this regard, the above article concludes that the Model Law applies to "any kind of information in the form of a data message used in the context of commercial activities".¹²⁰ The term 'commercial' was suggested to be given a wide interpretation that would therefore include ocean bills of lading.¹²¹

4.1.1 Receipt for the shipment of cargo

The Model Law, in Article 2 thereof, defines a data message as:

¹¹⁷ Holtzhausen (note 36) 42.
¹¹⁸ Gehrke (note 10) 54.
¹¹⁹ Holtzhausen (note 36) 43.
¹²⁰ UNCITRAL Model Law 1996.
¹²¹ Muthow (note 104) 32.

"Data message" means information generated, sent, received or stored by electronic, optical or similar means including, but no limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy."¹²²

Article 5 of the Model Law provides for the legal recognition of data messages and reads as follows:

"Information shall not be denied legal effect, validity or enforceability solely on the grounds that it is in the form of a data message."¹²³

A bill of lading, sent in electronic format, should therefore enjoy full legal effect and recognition. Similarly, a receipt in electronic format should have the same effect as a paper receipt, being *prima facie* proof that the carrier received the goods while in the same instance attesting to the quality and quantity thereof.

Article 16 of the Model Law¹²⁴ specifically deals with actions related to contracts of carriage of goods and includes the issuing of a receipt for goods. The holder of an electronic bill of lading can therefore claim delivery of the goods as the provisions of Article 17¹²⁵ provide that any requirement of writing or the use of a paper document will be met if such action is carried out by using data messages. Article 17 of the Model Law provides for data messages in that it states that:

"...where the law requires that any action referred to in Article 16 be carried out in writing or by using paper document, that requirement is met if the action is carried out by using one or more data message."

Muthow¹²⁶ states that the above article is however subject to paragraph 3, which provides that the legal requirement for the transfer of a right or obligation is met if this right is conveyed by a data message.

¹²² Art 2.
¹²³ Art 5.
¹²⁴ Art 16.
¹²⁵ Art 17.
¹²⁶ Muthow (note 104) 32.

In conclusion, the UNCITRAL Model Law on Electronic commerce appropriately fulfills the function of a receipt, with regard to the use of electronic bills of lading.

4.1.2 *Evidence of the contract of carriage*

An analysis conducted by UNCITRAL in 1985 reported that EDI transmissions have the same legal effect as documents in writing.¹²⁷ As mentioned above, Article 17 of the UNCITRAL Model Law¹²⁸ determines that a requirement of writing is met by the use of data messages.

A written document, accurately reflecting the contents of the agreement of the contract of carriage, is accepted as proof of such contract. By virtue of Articles 5 and 17 of the UNCITRAL Model Law¹²⁹, the same would be applicable to data messages.

4.1.3 *Document of title*

With regard to the negotiability or transferability of an electronic bill of lading Article 17(3) of the UNCITRAL Model Law¹³⁰ states as follows:

"If a right is to be granted to, or an obligation is to be acquired by, one person and no other person, and if the law requires that, in order to effect this, the right or obligation must be conveyed to that person by the transfer, or use of, a paper document, that requirement is met if the right or obligation is conveyed by using one or more data messages, provided that a reliable method is used to render such data message or messages unique."

This Article therefore provides two requirements for the transfer of a right or obligation namely, that such transfer should be effected by means of a data

¹²⁷ Ash 2009 <http://www.deneysreitz.co.za>.
¹²⁸ Art 17.
¹²⁹ Art 5 & 17.
¹³⁰ Art 17(3).

message, and that in doing so a reliable method is used. No further mention is made of what would constitute a 'reliable method' but one may assume that such method would be one that has been tested and proved to be reliable.

A transfer of a right or obligation can therefore be conveyed by means of a data message therefore satisfying the requirements of negotiability.¹³¹

It is further important to bear in mind that only statute or mercantile usage can establish the negotiability of an instrument.¹³² Although the Model Law does approve a data message as a means by which to transfer a right or obligation, it is however not yet clear if such a transfer has been accepted as mercantile usage.

According to Vieira¹³³ the broad acceptance of the CMI method as well as the BOLERO project may suggest that the electronic bill of lading is steadily becoming a commercial custom and may in future be upheld by the courts.

4.1.4 Conclusion: UNCITRAL Model Law viewed against the criteria for the electronic bill of lading

As mentioned above the Model Law is not a source of law but a proposed set of regulations¹³⁴ providing for electronic documents such as electronic bills of lading. The Model Law does therefore not specifically provide a system for the use of electronic bills of lading but does present a set of regulations for states to follow which can include bills of lading.

¹³¹ Kelly *Tulane Maritime Law Journal* 354.
¹³² Vieira (note 83) 13.
¹³³ *Ibid.*
¹³⁴ Gehrke (note 10) 54.

With regard to the first and second criteria, 'the issuing of a receipt or document and obtaining the goods', Article 5¹³⁵ does afford full legal effect to electronic documents while Article 16¹³⁶ provides for the issuing of a receipt for goods. The UNCITRAL Model Law therefore provides for the first and second functions of a bill of lading.

The third criteria requires a document to contain a reference to the contract of carriage. Because Article 5 affords legal effect to electronic documents and Article 17¹³⁷ provides that any requirement of writing is met by messages in electronic format, a document referring to the contract of carriage, in whatever format, will fulfill this third criteria.

The fourth and fifth criteria's require endorsement of a document and the establishment of a commercial custom through the transferring process. As mentioned above Article 17(3)¹³⁸ provides that a transfer may be effected by a data message if a reliable method is used. The Model Law however only provides for the transfer of a data message but does not specify a process for such a transfer. In this instance, the process should be an established commercial custom for the fifth requirement to be met. As the UNCITRAL Model Law does not provide or mention a process that could establish such a custom it can not meet the fifth and final requirement.

4.2 The CMI Rules for Electronic Bills of Lading

In 1990 the CMI Rules for Electronic Bills of Lading was published by the Committee Maritime International.¹³⁹ The Rules were issued to govern transactions involving electronic bills of lading.¹⁴⁰ The CMI Rules only apply

135

Art 5.

136

Art 16.

137

Art 17.

138

Art 17(3).

139

Committee Maritime International Rules for Electronic Bills of Lading 1990.

140

Vieira (note 83) 15.

when incorporated into the contract and do not aim to substitute national law provisions on bills of lading.¹⁴¹ To make use of these rules, shippers and carriers do not need to 'be members of a club' or pay registration fees but only require the necessary technology to transmit messages to each other.¹⁴²

This system proposes a direct communication between carrier and shipper providing a private registry system. This is distinct from a central registry system such as that set up by the Bolero project.¹⁴³

The CMI Rules are based on a system of "Private Keys" which, in effect, replace bills of lading.¹⁴⁴ The right of control is passed to other interests, after notification by the shipper to the carrier who cancels the original private key and issues a new key to the new person, entitled to the goods, who would therefore have the same rights as the holder of the bill of lading.¹⁴⁵ It is, however, doubtful whether the Private Key qualifies as a legitimate substitute for the traditional bill of lading under the different laws of many jurisdictions.¹⁴⁶

The primary feature distinguishing the CMI model from the paper bill of lading is the fact that the conventional bill of lading passes from trader to trader, retaining its identity as a single document, and not returning to the carrier until the goods are discharged. By contrast, the CMI electronic bill of lading returns to the carrier every time it is negotiated, and effectively each successive trader is issued a new document transmitted from the ship.¹⁴⁷

141

Ibid.

142

Dubovec (note 11) 451.

143

Livermore (note 90) 6.

144

Dubovec (note 11) 451.

145

Livermore (note 90) 6.

146

Ibid.

147

Todd 2010

<http://ourworld.compuserve.com/homepages/pntodd/intr/publins/demat.htm>.

According to Zekos¹⁴⁸ the CMI Rules are the most complete attempt to regulate open ended, computerized issuance and negotiation of bills of lading.

4.2.1 Receipt for the shipment of cargo

Article 4 of the CMI Rules¹⁴⁹ provides that the carrier must give notice of the receipt of the goods to the shipper which notice must contain a description of the goods “in the same tenor as would be required if a paper bill of lading were issued”. Such notice must further include the name of the shipper, the date and place of receipt of the goods, a reference to the carrier’s terms and conditions of carriage as well as the private key.¹⁵⁰ Article 4(d)¹⁵¹ further states that the above information shall have the same force and effect as if the receipt message were contained in a paper bill of lading. In this way the CMI Rules also provide for electronic bills of lading to fulfill the function of a receipt for the goods shipped.

In recent times, the practice has developed wherein shippers send information regarding the cargo to the carrier through EDI enabling the carrier to prepare an electronic bill of lading.¹⁵² When such information, as the description, quantity and conditions of the cargo is inserted into the electronic bill of lading, the bill thus acknowledges the receipt of the goods and so satisfies the ‘receipt’ function of a bill of lading.¹⁵³

4.2.2 Evidence of the contract of carriage

In this regard mention must be again given to Article 4(a), (b) and (d)¹⁵⁴ of the Rules. Article 4(a) requires that the carrier shall give notice to the shipper of the

148 Zekos *Managerial Law* 21.
149 Art 4.
150 *Ibid.*
151 Art 4(d).
152 Vieira (note 83) 6.
153 *Ibid.*
154 Art 4(a),(b) & (d).

receipt of the goods.¹⁵⁵ Article 4(b)¹⁵⁶ states specifically that such notice shall contain a “reference to the carrier’s terms and conditions of carriage”, being, in essence, a reference to the contract of carriage. Read together with Article 4(d)¹⁵⁷ it seems that an electronic bill of lading can indeed provide evidence of the contract of carriage.

Dubovec¹⁵⁸ states that the CMI Rules make no provision for contractual rights and liabilities to be transferred along with the documentation. One may however assume that such contractual rights are transferred by agreement between the shipper and the new holder of the Private Key.

According to Vieira, the common law rule states that once the bill of lading is in the hands of the shipper, it is *prima facie* evidence of the weight or quantity of the cargo shipped. An electronic version of this rule would be that once the shipper receives the electronic message, along with its corresponding code key, such electronic message is *prima facie* evidence of the contract of carriage and the burden of proving otherwise would rest on the carrier.¹⁵⁹

4.2.3 Document of title

In order to explain whether the CMI Rules provide for the transfer of rights or obligations, it is necessary to consider the working of the rules.

Upon receipt of the goods from the shipper, the carrier, using EDI, will send a message to the shipper’s electronic address, which will include the shipper’s name, a description of the goods, the date and place of receipt of the goods and the private key to be used in subsequent transmissions.¹⁶⁰

¹⁵⁵ Art 4(a).
¹⁵⁶ Art 4(b).
¹⁵⁷ Art 4(d).
¹⁵⁸ Dubovec (note 11) 451.
¹⁵⁹ Vieira (note 83) 9.
¹⁶⁰ Vieira (note 83) 14.

When the shipper decides to transfer the right of control in the goods he must notify the carrier of such intention and provide the carrier with the name and electronic address of the new holder where after the carrier will confirm the notification and transmit the necessary contract information to the new holder. A new private key is issued to the new holder as soon as he confirms his acceptance to the carrier.¹⁶¹

Although it has been said that the CMI Rules place an excessive responsibility on the carrier¹⁶² it does provide an effective method for the transfer of the right in the goods by means of electronic messages. Whether this method can be viewed as a commercial custom however remains to be seen.

4.2.4 Conclusion: CMI Rules viewed against the criteria for the electronic bill of lading

The CMI Rules provides a system whereby electronic bills of lading can be issued and transferred using “private keys”.

The first and second criteria are dealt with by Article 4.¹⁶³ Article 4¹⁶⁴ provides that the carrier must give notice to the shipper of the receipt of the goods containing a description of the goods which the shipper may use to obtain possession of the goods. Article 4(d)¹⁶⁵ provides that such information shall have the same force and effect as if the message was in paper form, therefore fulfilling the receipt function.

¹⁶¹

Ibid.

¹⁶²

Vieira (note 82) 15.

¹⁶³

Art 4.

¹⁶⁴

Ibid.

¹⁶⁵

Art 4(d)

Article 4(b)¹⁶⁶ further provides that the notice by the shipper should contain a reference to the carrier's terms and conditions of shipment, fulfilling the third criteria required to fulfill the functions of a bill of lading.

When the holder of an electronic bill of lading intends to transfer the bill, notice is given to the carrier, who is in possession of the bill. The carrier is provided with the necessary details of the new holder where after the carrier will provide him with a new private key. The fourth function, the endorsement of the bill of lading, is fulfilled when the carrier confirms the transfer by providing the new holder with a private key, thus endorsing the bill of lading.

The question whether the CMI Rules fulfills the fifth and final criteria is, as seen above, more difficult as a commercial custom must be established. According to the authors Zekos¹⁶⁷ and Vieira¹⁶⁸ the CMI Rules is the most complete attempt to regulate electronic bills of lading and has been broadly accepted. The test as to whether the CMI Rules have established a commercial custom would therefore be a test of time and endurance. If proven, in a court, that the use of this system has become widely accepted amongst shippers and traders, it could indeed be regarded as a commercial custom, bestowing on it the rank of a document of title.

4.3 The Bolero System¹⁶⁹

SWIFT and Through Transport Club created the Bolero (Bill of Lading Electronic Registry Organization) System in 1998 with the objective of achieving interoperability between businesses and industries in international commerce.¹⁷⁰

¹⁶⁶ Art 4(b).

¹⁶⁷ Zekos (note 148) 21.

¹⁶⁸ Vieira (note 83) 16.

¹⁶⁹ Bolero is the most recent project on electronic bills of lading which started in 1994 and lasted until September 1995 and was considered a great success.

¹⁷⁰ Dubovec (note 11) 452.

The project attempted to address special legal issues, which arise when paper negotiable documents are converted into electronic format.¹⁷¹

The system operated a Title Registry, which was an application that allowed for the creation and transfer of obligations related to an electronic bill of lading and was set up to be the only system that would enable the use of negotiable electronic bills of lading, performing all the functions of the paper bill of lading.¹⁷²

The Bolero services are based on the exchange of EDI messages between a central service known as a 'registry', and users. This central registry will contain details of shipping documents contained in a 'consignment record' and access to these details will validate messages it receives, and automatically generate messages to other users in response thereto.¹⁷³ In doing so the registry keeps record of all transactions.

The Bolero registry was operated on a members – only basis and therefore could not be accessed by the public, nor was it interconnected with existing personal property registries.¹⁷⁴

The creators of Bolero called their electronic document a 'Bolero Bill of Lading', and not an 'electronic bill of lading' because the Bolero Bill of Lading does not fall within the classic definition of a 'bill of lading' according to the maritime conventions and other relevant legislations.¹⁷⁵

An example of the working of the Bolero system can be described as follows:¹⁷⁶

171 Livermore (note 90) 7.

172 *Ibid.*

173 *Ibid.*

174 Dubovec (note 53) 457.

175 Schaal 2010 <http://www.inter-lawyer.com/lex-e-scripta/articles/electronic-bill-of-lading-4.htm>.

176 Anon 2010 <http://www.bolero.net/decision/legal>.

A seller sells goods to a buyer and thereafter delivers such goods to the carrier. The shipping instructions are sent to the carrier electronically, who in turn, provides the seller with a Bolero Bill of Lading (BBL). The BBL is then digitally signed by the carrier and sent to the registry, which automatically authenticates the message. This registry further sets up a record of the BBL providing it with a unique reference number. The registry thereafter sends the BBL to the seller or shipper who is declared as the holder of the BBL and the buyer or importer is declared as the 'to – order – party'. Once the importer has paid the seller, the importer will obtain the necessary documents and is declared the holder of the BBL. The importer may now transfer the BBL. The importer will be notified by Bolero International that the carrier holds the goods to its order as he is still registered as the 'to – order – party'. If the importer sells the goods, he will designate the buyer thereof as the holder and the new 'to – order – party' of the BBL. Bolero International will then notify the new holder, and 'to – order – party' that the carrier holds the goods to its order. When the goods arrive at the port of destination the buyer surrenders the BBL, which is confirmed by Bolero International. Bolero International will also give notice of the surrender to the carrier. The buyer can thereafter obtain possession of the goods after identification is proven to the carrier.

Although a Bolero Bill of Lading (BBL) is the functional equivalent of a conventional bill of lading, its legal underpinnings may be significantly different and as such the BBL may not fit all the legal definitions of a traditional paper bill of lading.¹⁷⁷

4.3.1 Receipt for the shipment of cargo

As mentioned above a receipt is merely a declaration that the goods have been received for shipment thereof. In a BBL the documentary component lists the

¹⁷⁷

Anon 2010.
<http://bolero.codecircus.co.uk/assets/31/legal%20aspects%20of%20a%20bill%20of%20lading1092161487.pdf>.

goods shipped in the same manner a paper bill of lading does and thereby serves as a receipt.¹⁷⁸ The BBL that is sent to the shipper or any subsequent holder will therefore serve as the receipt for the cargo shipped.

4.3.2 Evidence of the contract of carriage

The bill of lading functions as proof of the contract of carriage and therefore proof that the holder is entitled to receive the goods.¹⁷⁹ If the BBL is to achieve the same status and effect as the traditional bill of lading one can assume that the bill issued by the carrier would resemble a traditional bill in every way.

Part 2 of the Bolero rulebook states that “each user agrees that a Signed Message or a portion drawn from a Signed Message will be admissible before any court or tribunal as evidence of the message or portion thereof”.¹⁸⁰ For that reason the Bolero rulebook provides that a digitally signed electronic document can also evidence a contract of carriage.¹⁸¹

4.3.3 Document of title

Gehrke¹⁸² states that attempts have been made, by means of legislation, to solve the problems resulting from the sale of the goods in transit and enabling the consignee to become a party to the contract. This legislative solution was however not applicable to the Bolero system as not all acts covered electronic contracts and contractual solutions inside the Bolero framework were sought.¹⁸³ To create such a ‘succession’ the concept of novation was chosen to be incorporated into the Bolero Rulebook.¹⁸⁴

178 Anon 2010 (note 176).
179 Holtzhausen (note 36) 55.
180 Anon 2010 <http://www.boleroassociation.org/downloads/rulebook1.pdf>.
181 Anon 2010 (note 176).
182 Gehrke (note 10) 31.
183 *Ibid.*
184 *Ibid.*

Novation is the concept whereby one contract between two parties is extinguished to conclude an identical contract between one of these parties and a third party.¹⁸⁵ The transfer of a contract in a BBL is achieved through novation, re – making the contract with a different party.¹⁸⁶ As each carrier in the Bolero System appoints Bolero International to act as its agent, Bolero re – makes each contract of carriage on behalf of the carrier with each new transferee.¹⁸⁷

In this way, a solution was found to the ever – existing problem of an equivalent to the bill of lading's function as a document of title in the Bolero 'Title Registry'.¹⁸⁸ This 'Title Registry' operated as a trusted third party that each user can rely on when rights and obligations in the goods are transferred.¹⁸⁹

According to Dubovec¹⁹⁰ transferability of the Bolero Bill of Lading could not be achieved under this system since the transfer of the bill was paperless and it was not governed by national or international legal rules that regulate the transfer of paper bills of lading. As most national laws ascribe the character of 'document of title' to written documents the Bolero Bill of Lading could not be regarded as a document of title.¹⁹¹

Gehrke¹⁹² states that although many important companies have signed as customers to become Bolero users, only one transaction or practical application of the Bolero system has been reported. Although other companies have also since joined the Bolero system it is not clear whether a commercial custom has been established.

185 *Ibid.*
186 Anon 2010 (note 176).
187 *Ibid.*
188 Schaal 2010 (note 174).
189 *Ibid.*
190 Dubovec (note 11) 453.
191 *bid.*
192 Gehrke (note 10) 13.

4.3.4 Conclusion: *The Bolero system viewed against the criteria for the electronic bill of lading*

The Bolero system was a 'title registry' based system, making use of Bolero bills of lading stored in a central registry.

The first criteria are fulfilled by the carrier who provides the shipper with a BBL, after the shipping instructions have been sent to the carrier. The second functions also provides no troubles as the BBL is merely produced to the carrier and confirmed by Bolero International, enabling the holder to obtain possession of the goods.

As seen from the legal aspects of a BBL¹⁹³ an electronic document does provide evidence of the contract of carriage, thus fulfilling the third criteria.

To transfer the BBL the holder informs Bolero International of such intention. As the transfer of a BBL is conducted by means of novation, the Bolero system re – makes the contract of carriage with the new transferee. The 'endorsement' function is therefore concluded by the system itself, as the original document is not necessarily endorsed by the holder thereof but a new document is concluded, between the carrier and the new holder thereof.

With regard to the final question, whether a commercial custom had been established it seems that only one successful transaction, using this system, has ever been concluded. To be regarded as a commercial custom, the process of transferring BBL's would have to become so widespread and commonplace in international trade that it is viewed as an everyday occurrence, something that the Bolero system has not yet achieved. The Bolero system can therefore not be regarded as a document of title.

¹⁹³

Anon 2010 (note 176).

4.4 The SeaDocs System

In 1986 SeaDocs Registry Limited (SeaDocs¹⁹⁴), a London – based Delaware Corporation, was formed.¹⁹⁵ SeaDocs¹⁹⁶ was the precedent of all electronic bills of lading and the first system to administer an electronic bill of lading using a central registry where original paper bills of lading were deposited.¹⁹⁷

The objective of the project was to protect the parties involved from fraudulent alterations of tanker bills of lading.¹⁹⁸ The system was operated by Chase Manhattan Bank, through which all parties to the transaction communicated but it was not a fully automated system since the bank communicated with users via telex after receiving the original paper bill of lading.¹⁹⁹

SeaDocs worked as follows:²⁰⁰

Once the shipper delivered the goods to the carrier, the carrier would issue the shipper with a paper bill of lading. This bill was then deposited with the bank (Chase Manhattan Bank). The bank would issue the shipper with a code, similar to a commonly known personal identification number (PIN). When the shipper negotiated the bill, he would have to notify SeaDocs of the buyer's name. The shipper would further provide the buyer with a portion of the code issued to him where after the buyer would notify SeaDocs thereof. After the message was tested by SeaDocs, communication would be established with the buyer. If the buyer's message contained the portion of the shipper's test key his message would be accepted and he would be registered as the new owner of the bill of lading. Before arrival of the goods at the port of discharge, SeaDocs would

¹⁹⁴ Seaborne Trade Documentation System.

¹⁹⁵ Gehrke(note 10) 10.

¹⁹⁶ SeaDocs was a joint project of the Chase Manhattan Bank and Intertanko (the International Association of Independent Tanker Owners).

¹⁹⁷ Dubovec (note 11) 449.

¹⁹⁸ Chandler (note 95) 574.

¹⁹⁹ Chandler (note 95) 468.

²⁰⁰ Gehrke (note 10) 10.

transmit the identifying code number to the carrier as well as to the new holder of the bill. By using this code number, the last recorded owner of the bill could claim delivery of the goods from the carrier.

4.4.1 *Receipt for the shipment of cargo*

The function of the bill of lading as a receipt is of particular importance to the shipper of the goods. According to Art. III (3) of the Hague/Visby Rules the shipper is entitled to demand the issue of a bill by the carrier, the master, or the carrier's agent showing among other things the leading marks for the identification of the goods, the number, quantity or weight of the goods delivered and their apparent order and condition.²⁰¹

When making use of the Seadocs system, the carrier issues a receipt to the shipper, as per the usual practice. The carrier therefore fulfills the first function of the bill of lading in the normal fashion. The Seadocs system only comes into play once the receipt is deposited, acting as a depository – custodian of the original paper bill of lading.²⁰²

Seadocs will thereafter deliver the paper bill of lading to the consignee or party who would claim delivery of the cargo. The bill of lading can then be used to verify the quality and quantity of the goods.

4.4.2 *Evidence of the contract of carriage*

As mentioned above, an original paper bill of lading is issued by the carrier. Hare²⁰³ states that it is trite law that the bill of lading is good evidence of the contract of carriage and is therefore *prima facie* evidence of the contract of carriage.

²⁰¹ Schaal 2010 (note 174).
²⁰² Muthow (note 81) 33.
²⁰³ Hare (note 2) 549.

The bill of lading issued by the carrier, although deposited with Seadocs, would therefore constitute evidence of the contract of carriage.

4.4.3 Document of title

With regard to the transfer of ownership in the goods it is important to note that when the bill of lading is deposited with Seadocs, it becomes the agent of all the parties involved in the shipping transaction.²⁰⁴ Being the agent of the parties, Seadocs has the authority to endorse the bill of lading and deliver the paper bill of lading to the consignee or party who would eventually claim delivery of the cargo.²⁰⁵

According to the above working of the Seadocs system, a test key or code is delivered to the shipper when the original bill of lading is delivered to Seadocs. In order to transfer the bill the shipper has to notify Seadocs of his intention and provide the endorsee with a portion of the test key. The endorsee would also notify Seadocs of his acceptance where after the system would test the message by verifying the message against the portion of the test key. The system thereafter recorded the name of the endorsee in the registry as the new owner of the bill.²⁰⁶

As the agent Seadocs endorses the back of the bill of lading to the new owner thereof, thus transferring ownership in the goods. In essence the transfer is completed in the original manner except that the system, instead of the owner, effects the transfer by endorsement.

²⁰⁴ Muthow (note 81) 33.

²⁰⁵ *Ibid.*

²⁰⁶ *Ibid.*

4.4.4 Conclusion: The SeaDocs system viewed against the criteria for the electronic bill of lading

The Seadocs system also made use of a central registry system where the original paper bills of lading were deposited.

The first criteria were fulfilled in the traditional way as the carrier issued a paper bill to the shipper. Only after receipt was the paper bill deposited in the central registry. Once the bill had been deposited, the shipper would receive a code. This code was also transmitted to the carrier and as such the shipper was able to receive the goods from the carrier, thus fulfilling the second criteria.

With regard to the third criteria, a paper bill of lading issued by a carrier would, under normal circumstances contain a reference to the contract of carriage, thus fulfilling this function. It should also be kept in mind that a bill of lading is in itself *prima facie* evidence of the contract of carriage.

In order to negotiate the bill, the shipper would notify Seadocs of the buyer's name as well as provide him with a portion of the code he received from Seadocs. Seadocs would then test the message and, if found to be authentic, the buyer's name would be inserted, as the new holder of the bill of lading, thus discharging the fourth function.

With regard to the fifth criteria, Seadocs did not establish itself as a commercial custom. The system lasted for about one year and, although no operational difficulties were reported, failed due to various reasons.²⁰⁷

²⁰⁷

Gehrke (note 10) 11.

5 South African Law

According to Hare,²⁰⁸ there are two questions which a court should always ask itself when hearing a maritime matter. Firstly, does it have jurisdiction to hear the matter in Admiralty in terms of the Admiralty Jurisdiction Regulation Act,²⁰⁹ and secondly which law is the court to apply? In this regard section 6 of the Admiralty Act²¹⁰ provides that South African statute law will prevail²¹¹ after which any choice of law terms will be upheld.²¹² In the absence of applicable statute, where a matter invokes old jurisdiction that predated November 1983, English law as it was in November 1983 will be applicable.²¹³ Finally where the jurisdiction is new, created by the Act, the present – day South African Roman – Dutch law applies.²¹⁴

5.1 *Sea Transport Documents Act 65 of 2002*²¹⁵

As mentioned above, prior to the commencement²¹⁶ of the Sea Transport Documents Act (hereafter referred to as the STDA), the Admiralty Jurisdiction Regulation Act²¹⁷ made English law applicable in certain circumstances within South Africa.²¹⁸ This meant that with regard to any matter in which a court of admiralty had jurisdiction before the commencement of the Admiralty Act²¹⁹, such a court had to apply the law, which a High Court of Justice of the United Kingdom would have applied.²²⁰ If this situation was still applicable, the English Bills of Lading Act of 1899 would have been the appropriate legislation.

²⁰⁸ Hare (note 2) 17.

²⁰⁹ 105 of 1983.

²¹⁰ *Ibid.*

²¹¹ S 6(2).

²¹² S 6(5).

²¹³ Hare (note 2) 18; S 6(1)(a).

²¹⁴ Hare (note 2) 18; S 6(1)(b).

²¹⁵ Sea Transport Documents Act 65 of 2002.

²¹⁶ The Sea Transport Documents Act came into force on 20 June 2003.
²¹⁷ Act 105 of 1983.

²¹⁸ Holtzhausen (note 35) 31.

²¹⁹ 105 of 1983.

²²⁰ S 6(1)(a).

Section 2²²¹ of the Sea Transport Documents Act (hereafter referred to as the STDA) determines that the act applies to:

"any sea transport documents issued in the Republic, irrespective of whether it was issued before or is issued after the commencement of this Act"

Sea transport documents are defined in section 1²²² of the act which includes a bill of lading but does not specifically refer to electronic form of documents.²²³ According to Holtzhausen²²⁴ the act was designed to regulate the traditional "to order" bills of lading, as well as other similar documents including electronic bills of lading.

5.1.1 Receipt for the shipment of cargo

Section 6²²⁵ of the Act deals with the receipt as well as the evidence functions of a bill of lading.

With regard to the receipt function, this section determines that a sea transport document is a receipt and therefore evidence, in favour of the holder thereof, of the shipment of the goods and of their receipt.²²⁶

The question however remains whether this receipt includes bills of lading in electronic format. If one assumes the act was indeed designed to also regulate electronic bills of lading, this 'receipt' should then also include any receipt in electronic format.

221 S 2.
222 S 1.
223 Holtzhausen (note 36) 32.
224 Ibid.
225 S 6.
226 Ibid.

5.1.2 Evidence of the contract of carriage

Section 6²²⁷ further determines that any sea transport document, representing goods, shipped or received for shipment on board a vessel, which has been duly signed, constitutes *prima facie* evidence of the shipment of the goods.

This section of the act does however not refer to any evidence of the contract of carriage. In practice, the terms of the contract of carriage or a reference thereto, would be indicated on the back of the bill of lading. If a bill of lading was therefore issued it should, according to Hare,²²⁸ be evidence of the contract of carriage.

5.1.3 Document of title

According to Holtzhausen²²⁹ the influence of the STDA on the situation of electronic transfer of documents is limited. It is clear from section 3²³⁰ however that the Act is intended to accomodate electronic documents.

Section 3(1)²³¹ of the STDA states that sea transport documents may be transferred, by the holder, through delivery of the document or "through the use of a telecommunication system or an electronic or other information technology system". This section therefore determines that delivery may be effected by the physical delivery or handing over of the document or by doing so through electronic means. Although the STDA does not refer to specific types of electronic forms of documents, the Minister of Transport may extend the definition in the act to include certain electronic forms of documents.²³²

227

Ibid.

228

Hare (note 2) 549.

229

Holtzhausen (note 36) 32.

230

S 3.

231

S 3(1).

232

S 9(1)(a).

5.1.4 Conclusion: The Sea Transport Documents Act viewed against the criteria for the electronic bill of lading

The STDA applies to all transport documents issued in South Africa and specifically refers to bills of lading and electronic bills of lading. The act provides a guideline in the same manner as the UNCITRAL Model Law and does not provide a system whereby electronic documents are issued and transferred.

Section 6²³³ of the Act determines that a sea transport document is a receipt and therefore evidence of the shipment of the goods. This section therefore deals with the first and second criteria. As the act includes electronic bills of lading, such a bill is also regarded as a receipt and the goods can successfully be obtained therewith.

As seen above section 6²³⁴ determines that a transport document, therefore an electronic bill of lading, is prima facie evidence of the shipment of the goods. If such a document is indeed issued it should, according to Hare²³⁵, constitute evidence of the contract of carriage.

As mentioned above, the influence of the STDA on the transfer of documents is limited. The act does reveal that transfer may be carried out by the physical delivery of the document or through electronic means. This physical delivery would normally involve the endorsement of the document but the Act does not make any mention thereof. As the act does not provide for a system whereby documents may be transferred, it can also not be claimed to be a commercial custom. The Act does however make provision that such a 'system' could be legally used under the provisions of this act.

233

S 6.

234

Ibid.

235

Hare (note 2) 549.

5.2 *Electronic Communications and Transactions Act 25 of 2002*²³⁶

Previously the absence of legislation regarding e-commerce and the regulation of electronic transactions in South Africa led to much confusion and speculation regarding the legal implications thereof.²³⁷

The Electronic Communications and Transactions Act (hereafter referred to as the ECTA) came into effect on 30 August 2002.²³⁸ This act has been hailed as a very welcome piece of legislation as it addresses the issues of e-commerce as well as the validity of electronic concluded agreements and electronic data.²³⁹

The primary objective of the act is to "enable and facilitate electronic communications and transactions in the public interest."²⁴⁰ The impact of the act is wider and in relation to facilitating electronic transactions, the impact upon traditional approaches to contract law is far reaching.²⁴¹

Although the act does not refer to bills of lading, section 4 of the Act²⁴² provides that it applies in respect of any electronic transaction or data message. Schedule 2 of the Act²⁴³ contains a list of documents to which the act does not apply.²⁴⁴ This list does not refer to bills of lading in any form and therefore an electronic bill of lading would squarely fall under the sphere of application of the act.

²³⁶ Electronic Communications and Transactions Act 25 of 2002.
²³⁷ Holtzhausen (note 36) 34.
²³⁸ Anon 2010
<http://www.cliffedekkerhofmeyer.com/news/commentary/index.htm>.
²³⁹ Holtzhausen (note 36)34.
²⁴⁰ Anon 2010 (note 237).
²⁴¹ *Ibid.*
²⁴² S 4.
²⁴³ Schedule 2.
²⁴⁴ Anon 2010 (note 237).

5.2.1 *Receipt for the shipment of cargo*

Chapter III part 1 of the Act²⁴⁵ provides for the recognition of electronic documents and signatures and facilitates the use of electronic communications in the business environment.²⁴⁶

Section 11 of the Act²⁴⁷ provides for the legal recognition of data messages and states as follows:

"(1). Information is not without legal force and effect merely on the grounds that it is wholly or partly in the form of a data message."

Section 12 of the Act²⁴⁸ determines that a legal requirement for a document to be in writing is met if such a document is in the form of a data message.

Unlike the Sea Transport Documents Act²⁴⁹ the ECTA does not refer expressly to bills of lading. If a bill were however in the form of a data message, the ECTA will become applicable. In this regard, the above sections become applicable as they would provide a bill of lading, in electronic format, with legal recognition and further provides that such information or document need not be in writing as it is traditionally known.

5.2.2 *Evidence of the contract of carriage*

As seen above, it is trite law that a bill of lading is evidence of the contract of carriage.²⁵⁰ A bill of lading in electronic form would fulfill this requirement if it contained the terms of the contract of carriage thereon or a reference thereto.

²⁴⁵ 25 of 2002
²⁴⁶ Anon 2010 (note 237).
²⁴⁷ S 11.
²⁴⁸ S 12.
²⁴⁹ Act 65 of 2000.
²⁵⁰ Hare (note 2) 549.

The ECTA provides in section 15²⁵¹ that:

"in any legal proceedings, the rules of evidence must not be applied so as to deny the admissibility of a data message, in evidence –

(a) on the grounds that it is constituted by a data message"

The act further provides that an electronic document may be regarded as an original where its integrity is assured²⁵² and that a data message will be admissible in court proceedings if it is regarded as the best available evidence.²⁵³

5.2.3 Document of title

One of the key challenges arising from the Act is the provision of a system that engenders confidence in e-commerce.²⁵⁴ On an international level, legislatures seeking to regulate e-commerce have looked to the use of public key cryptography and the regulation of an authentication infrastructure as the best means to ensure such confidence.²⁵⁵

The ECTA does not specifically deal with the issue of transferring a bill of lading. As seen above some systems make use of electronic signatures such as private keys or codes. In this regard the ECTA provides in section 13(2)²⁵⁶ that an "electronic signature is not without legal force and effect merely on the grounds that it is in electronic format". Section 22(1)²⁵⁷ further provides that "an agreement is not without legal force and effect merely because it was concluded partly or in whole by means of data messages". The Act goes further in this

251 Act 25 of 2002 S 15.
252 S 14.
253 Anon 2010 (note 237).
254 *Ibid.*
255 *Ibid.*
256 S 13(2).
257 S 22(1).

regard making provision for cryptography ensuring that only specific persons can access messages.

A transfer of an electronic bill of lading, by means of a form of electronic signature, is therefore supported by the act. The act does therefore give legal force and effect to electronic bills of lading.

5.2.4 Conclusion: The Electronic Communications and Transactions Act viewed against the criteria for the electronic bill of lading

This Act has addresses the issues of e-commerce as well as the validity of electronic concluded agreements and electronic data.²⁵⁸ The objective of the act is to "enable and facilitate electronic communications and transactions in the public interest."²⁵⁹ The Act applies in respect of any electronic transaction or data message. This act is similar to the UNCITRAL Model Law and the STDA in that it only affords a guideline and not a detailed system whereby documents are issued and transferred.

The Act provides an electronic bill of lading with legal recognition and provides further that such a document need not be in writing. The Act thus provides that a receipt issued by a carrier, in whatever form, would have full legal recognition, and could therefore be used to obtain possession of the goods. The Act further provides that electronic documents or documents contained in the form of data messages shall not be denied admissibility as evidence in a court.

With regard to the transfer of documents, the Act only affords legal force to electronic signatures and does not directly deal with the transfer of documents. If a bill of lading is transferred in electronic format, by means of an electronic signature, such a transfer would be endorsed by the Act.

²⁵⁸ Holtzhausen (note 36) 34.
²⁵⁹ Anon 2010 (note 237).

The Act, not being a precise system, therefore only declares the validity of transport documents and electronic signatures but does not fulfill the criteria for the functions of a bill of lading.

Thus when an electronic bill of lading is transferred, under the ECTA, such a bill will have legal recognition. Whether parties choose to make use of such electronic documents is another question altogether.

6 Conclusion

Documents of title, like bills of lading, play an integral role in modern commerce²⁶⁰ and international trade, in which bills of lading is regarded as the most important of all transport documents. Although a revolution in the international carriage of goods has been an ongoing phenomenon since the 1950's, the law, however, is slow to change.

It has been hailed as a necessity that a suitable electronic bill of lading is created as the advances in the electronic transfer of documents are made ever more swiftly.²⁶¹ To accommodate the ongoing revolution and provide for the functions of the bill of lading various legislation and systems have been developed such as the models laws, systems and statutes discussed above.

The development of electronic bills of lading may hold countless advantages for the shipping industry only if such bills can successfully retain the functions, originally laid down by paper based bills of lading, when it is transferred electronically. The different systems discussed above show that the use of electronic bills of lading can become a reality although not all of these have been successful in providing for the functions of a bill of lading.

Three regulatory, legislative forums were considered above. These are the UNCITRAL Model Law²⁶², the Sea Transport Document Act²⁶³ and the Electronic Communications and Transactions Act²⁶⁴. These Laws and Acts do not provide specifically for electronic bills of lading, or a system for the use thereof, but provides guidelines and legislative authority to the content and use of electronic documents. All three these legislative authorities provide, to a lesser extent, for

²⁶⁰ Holtzhausen (note 36) 70.

²⁶¹ *Ibid.*

²⁶² Model Law 1996.

²⁶³ Act 65 of 2000.

²⁶⁴ Act 25 of 2002.

the functions of a bill of lading as set out in the criteria thereof. There are however some difficulties with regard to the transfer of documents.

The UNCITRAL Model Law would only support a transfer if a 'reliable method' is used. The meaning of 'reliable method' is however not further discussed in the Act. The Sea Transport Documents Act is rather vague with regard to the transfer of documents, stating merely that delivery could be conducted "through electronic means". The Electronic Communications and Transactions Act only provide for electronic signatures and lacks clarity regarding the position when documents are transferred. Although these Acts provide a good legislative framework they would only be truly successful if used in conjunction with a fully automated system clearly providing for the transfer of documents as provided for example by the CMI Rules.

Along with the three legislative forums discussed above, these systems, which specifically deal with electronic bills of lading, has furthermore been considered. These are the CMI Rules for Electronic Bills of Lading, the Bolero System and the Seadocs System.

Again the first four criteria do not present much difficulty and all three systems adequately provide therefore. It seems again that when attempting to replicate the last and most important function of the bill of lading that problems arise.

The CMI Rules employs a registry system in which the carrier acts as the central registry to all the parties involved. The transfer of documents using this framework would indeed be possible. The Bolero system also made use of a central registry system, operated by Bolero International. Documents were transferred by means of novation, with new agreements concluded between different parties. In theory this system could be useful if the central registry is secure and trusted. The Seadocs system is another system making use of a

central registry, the only difference was that the registry was operated by a bank, which should ensure better security and transparency.

The fundamental question is whether this system, and the process whereby documents are transferred, may be regarded as a commercial custom amongst merchants. In other words, has the process, provided by such a system, become so everyday and commonplace, in the realm of international trade, that it may be regarded as an everyday occurrence? As seen above, both the Bolero and Seadocs systems have failed in this regard. It is only the CMI Rules that has prevailed and has been broadly accepted. Whether these rules may be considered as a commercial custom remains a question which would have to be answered by a competent court with the necessary admiralty jurisdiction.

The hope for the future use of electronic bills of lading has been further strengthened by the recent signing of the Rotterdam rules.²⁶⁵ The fundamental purpose of the rules is held in Article 2²⁶⁶ thereof which reads:

"In the interpretation of this Convention, regard is to be had to its international character and to the need to promote uniformity in its application and the observance of good faith in international trade".

In relation to electronic commerce, the convention recognizes all electronic communications that enjoy the consent of the shipper and the carrier as to form, and allows negotiable transport documents to be replaced by a negotiable electronic record.²⁶⁷ The rules are essentially 'technologically neutral' to allow for

²⁶⁵ At the 63rd session of the UN General Assembly on 17 November 2008 The Rotterdam Rules were duly adopted by Resolution A/63/A38. The Rules were signed by a number of countries, including the United States on 23 September 2009.

²⁶⁶ Rotterdam Rules 2008 Art 2.

²⁶⁷ Negotiable electronic record is defined in the Convention as "an electronic record that records the negotiability of the record in a manner similar to the hard – copy bill of lading – i.e. by stating that the record is 'to order' or 'negotiable'.

future developments in e – commerce.²⁶⁸ Article 60²⁶⁹ allows for the negotiation of a transport document and has the effect of transferring the rights incorporated in the transport document to ‘another person’.²⁷⁰

The Rotterdam rules seems set to replace the commonly used Hamburg and Hague – Visby Rules but has the added advantage of applying to all forms of transport and is not limited to bills of lading.²⁷¹ The rules, however, require enough ratification to be of success both in the international community.

The manager for the Customs and Facilitation Institute of the International Federation of Freight Forwarders Associations (FIATA), Sandro Consoli, stated:

"The issue is whether customers (shippers) will accept electronic documents. If the customer wants a piece of paper, I will do that, because otherwise I will lose my customer. This system was built in the developed countries and is more likely to happen there. If it works, that's great. But they have to prove it."²⁷²

As the manager of FIATA noted, the acceptance of electronic documents is not a matter of changing transportation law to enable electronic documentation, but is a matter of gaining the trust and security of the customers who use shipping documents in their trade relations.²⁷³ Only if the latter is accomplished, can a commercial custom be established. As seen above, it is only the CMI Rules that could fulfill this criteria, although, as stated by the FIATA manager, is has to be proven.

As the bill of lading is an abstract representation of the material goods it describes; just as paper money is the abstract representation of the monetary

²⁶⁸ Hare Shipping Law 2009 635.
²⁶⁹ Art 60.
²⁷⁰ Hare (note 267) 637.
²⁷¹ Art 11 & 14.
²⁷² Dubovec (note 11) 465.
²⁷³ *Ibid.*

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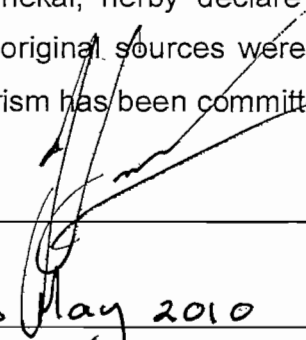
Addendum

Declaration of Original Work

I, Jan – h endrik Senekal, hereby declare that this assignment is my own original work. Only original sources were consulted and to the best of my knowledge no plagiarism has been committed in the writing of this thesis.

Signature: _____

Date: _____


3 May 2010