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Using Electronic Bill of Lading as a Solution for Delivering Cargo without Presentation of the Original Bill of Lading

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ABSTRACT

Many instruments have helped traders to effectively communicate, establish contracts, manage risk and protect their benefits while collaborating with people who have diverse cultural background. The bill of lading (B/L) has been one of the most significant documents in the shipping industry since it was invented in the 13th century in Italy. Itis evidence of an existing contract between the shipper and the carrier, in which both of them agreed to deliver the goods safely from the port of loading to the port of discharging. However, many problems are triggered by triggered by requiring the presentation of the original paper B/L at the discharging port so that the buyer get the cargo in time. As of today, many attempts carried out to develop an electronic equivalent to the paper B/L. Additionally, many practices formed in order these electronic equivalents to be legally reinforced and enhanced. This article presents the main transitional stages of these efforts and the current status of this progress. Moreover, it analyses the legal background which has been established so far, to validate these ventures and it investigates the option of using an electronic B/L in order the ships to be able to deliver the goods without the presentation of the original document.

Keywords: *Electronic Bill of Lading; Carrier; Shipper; Goods; Technology*

INTRODUCTION

In the early days of commerce, the owner of the goods would often travel with the goods and sell them at their destination. He would tender the bill of lading to the master at the discharge port and, in return, the master would release the goods to him or, at his personal direction, to the buyer. The function of B/L remained simple. As commerce became more sophisticated the merchants and traders became involved in more shipments and were unlikely to sail with any of them. In those circumstance it became important for them to be able to give the master orders as to delivery of the goods. The delivery order would be written upon the bill of lading and would tell the master with whom he should deal at the discharge port. (Mills 2014)

The law developed alongside these commercial developments and soon recognised the B/L as a document which gave certain rights to the person holding it. The transfer of the B/L accordingly became the practical method of transfer of ownership of the goods. It became a document of title.

As Mills (2014) mentions B/L has the three following functions: as a receipt which shows what has been loaded on the ship, as a

However, today the need to replace the traditional paper documents due to technological changes in maritime sector is obvious. All the attempts have to be within the existed legal framework.

In this paper an analysis will be carried out for the current legal framework concerning the use of eB/L and hypothetically we will explore the possibility of deliver the goods with a paperless B/L. We will search for previous attempts which failed to produce the required results or for some successful tries of eB/L and the advantages or disadvantages for both B/L the electronic and the paper one.

TRADITIONAL BILL OF LADINGS AND CREATED PROBLEMS

Usually B/Ls are prepared by the shipper or his agent and rarely are prepared by the ship-owner, his agent or the master of the vessel. A B/L contains information about: description/ condition and quantity of the cargo, the loading port and the date of shipment (loading), the discharge port, the name of the vessel, if the charter fees has paid and the terms of carriage. (Mills 2014)

document of title which shows who can demand the goods at the discharge port and as a contract of carriage. But its most important

single feature is that the holder of a B/L can demand from the carrier delivery of the goods to him, when they arrive at their port of destination. (Todd 1990)

Some issues are rising such as: the difference between ship's and shore figures after the completion of loading operation, the pressure on the master to create clean B/Ls, ask for delivery of the cargo without an original B/L is existed and sometimes ship's agent signs B/L without the advice of chief officer figures/ papers or in excess of his authority from the master. (Mills 2014)

There are various problems which could be affected the delivery of cargo and extend the duration of the delays such as: when damaged or otherwise defective cargo is presented for loading, when master is asked to sign "clean" B/Ls when these are not justified, when ship and shore loading figures differ, when a charterer's B/L has to be used, when the number of original B/Ls shown on the face of the bill is not the same as the number of negotiable B/Ls, when two or more sets of B/Ls are requested by the shipper, when a B/L presented for signing is written in an incomprehensible foreign language or alphabet, when the master is asked to sign blank or partially completed B/Ls, when B/Ls have to be re-issued or amended, when the master is asked to pre-date or post-date B/Ls, when delivery of cargo is requested without presentation of the relevant B/L, when cargo delivery is requested against presentation of an original B/L carried on board, when two parties present "original" B/Ls and when the goods are unclaimed at the discharge port. (General Cargo Ship 2016)

The delayed arrival of B/L at the port of discharge is a primary problem as many countries reported in the past. Other disadvantages of traditional B/L is the high cost of issuing and processing the documents and a fraudulent issuance of B/Ls. The possibility of inaccurate or insufficient information in traditional B/Ls is an ever recurring problem. (Yiannopoulos 1995)

The last decades we observe huge changes in maritime sector due to new technologies which are developed. The faster ship which are built, the containerized cargo and multimodal transporters need the eB/L, the revision of current transport documentation procedures and the increased use of non-negotiable sea waybills. Consequently, the cargo arrives in destination port faster than before, loading and discharging of containerized cargo spending less time than in the past. (ibid.)

When a B/L is not available a LOI is used to discharge the cargo. Even this is an issue which happens for long time, non-availability or non-production of B/L is becoming more usual. Sometimes the vessels arrive at the discharge ports prior the completion of relative papers due to increased speed of transportation. Even though all the documents can be sent around the world, some delays are observed until B/Ls are released at the loading ports. (P&I Club 2017)

Protection and indemnity insurance is not cover any liability which arises due to mis-delivery of cargo. The directors will decide about the coverage by the club of a claim for liabilities. In any case the ship-owner faces liabilities, for which he may not be able to recover from the P&I Club, in case he mis-delivers cargo. (ibid.)

PREVIOUS AND EXISTED FORMS OF ELECTRONIC BILLS OF LADING AND THEIR RESULTS

The meaning of electronic data interchange (EDI) is: "computer to computer exchange of information in predetermined formats. EDI has many advantages such as: saving time, reduction of costs, decrease of the number of middlemen, increased accuracy and standardization of business communications. (Yiannopoulos 1995)

As per Yiannopoulos (1995), an EDI system called: "swift" (Society for Worldwide Interbank Financial Telecommunications) is currently used in international commerce by the banking industry for the communication of commercial letters of credit among banks worldwide.

Furthermore, an eB/L may be either negotiable or non-negotiable. The problems surrounding the development of an EDI system for non-negotiable B/Ls are relatively few and susceptible of swift resolution. The real challenge lies in the development of an EDI system for negotiable B/Ls. Electronic transmission and negotiation of negotiable B/Ls should be the ultimate goal of EDI use in the field of maritime law. (ibid.)

A London based corporation formed by INTERTANKO and Chase Manhattan Bank was SeaDocs registry limited. The specific project began in 1986, but it had active

operational duration for less than one year. Under the SeaDocs system, the carrier issued a traditional B/L, it was immediately taken out of circulation and deposited with SeaDocs, which functioned as a depositary-custodian of the paper based original bill as well as a registry of B/L negotiations. Although the SeaDocs project failed to attract clients (trading partners and banks) to survive due to following reasons: the expected expenditures of registry operations insurance, the disagreement of commodity traders to save the history of their deals in the system, the ultimate buyers hesitated to obtain B/Ls from a program which had created for speculators and intermediaries and finally the exclusive control of the registry business by Chase Manhattan Bank it's something negative for rest of the banks. (Goldby 2013)

Another model for eB/L was offered by the CMI in 1990. Theoretically, that model could be used by carriers but there is not any evidence that some companies used it in practice. In general, the use of a unique code which called "private key" is essential which is known only to the carrier and shipper. The goal of that system is to specify who the holder of eB/L is at any time and consequently who has the right/ responsibility to handle the specific cargo and carry it to its destination. The carriers create the original paper B/Ls and are the parties who incur duties and liabilities under them. The CMI system recognises the importance of carrier's role. Online logistics services relating to the handling and stowage of the cargo are already made widely available by carriers and nowadays it is not hard for the maritime industry also to supply services such as those envisaged by the CMI rules.(ibid.)

An eB/L is not just another edition of a typical B/L. It's an ideal blend of a legal rulebook and technology which can replace and execute all the purposes of a traditional B/L. Since 80's many attempts took place targeting the creation of an eB/L. (Bolero 2017)

Therefore, that system which is related with eB/Ls is Bolero. It is a closed (that is, member only) system, which requires a would-be user to register as member before it can use Bolero. Its legal framework which called Rulebook is followed by all members and give us the definition of terms. Using a combination of notification and authentication with digital signatures Bolero operates the title registry and transfers possession of eB/Ls. (Goldby 2013)

Today, an active system is set by Korean Republic concerning the eB/L. Korea introduced a new article into its Commercial Act 2001 and issuing a Presidential Decree implementing the article. The operator of the system is Korea Trade Net (KTNET), a private company which selected by the Korean Ministry of Justice in order an eB/L to be functionally equivalent to a paper bill. (Goldby 2013)

An alternative electronic shipping document which established in 2010 by Electonic Shipping Solution is CargoDocs is an electronic shipping document exchange. The system created five years before its establishment. ESS databridge development group was set up a forum for the promotion of the use of electronic documentation, and to develop the DSUA and the ESS-Databridge's functionality. Exporters, forwarders and logistics companies can manage the online creation and approval of trade document-tation in our DocPrep+ module. Original documents required for export, shipping, trade, finance and import can then be electronically signed and exchanged in our DocEx module. CargoDocs digitizes all key original documentation, including bills of lading and certificates of origin. CargoDocs also enables Banks to manage financial messaging with their corporate customers, receive and digitize presented documents and offer financing under a 4-corner digital Bank Payment Obligations or Supply Chain Financing solutions. The solution combines title, quality, condition, location and other key data to reduce risk and improve visibility and control. (ESS 2017)

The third approved system is e-title™ is patented, peer-to-peer technology that enables the creation and transfer of title and negotiable documents, such as the bill of lading. As peer-to-peer technology, e-title™ works equally well in the back office of a carrier, bank or multinational company as it does when provided by an Application Service Provider(ASP) for Small and Medium Enterprises (SMEs).e-title™ enables title transfers by using peer-to-peer technology. This eliminates the reliance on costly central registries, reduces the concentration of risk, and ensures that the service provider or national platform maintain operational control over title documents. (e-title 2017)

The eB/L faces many of the weak points of the paper system, with a number of advantages: first it can be send worldwide immediately, reducing the administrative burden of trade, second any possible corrections that are required can be happened more efficient and cheaper and third the electronic system is more secured than the paper one due to new electronic payment systems and concerning advances in security. This is obviously subject to cyber issues. The above benefits will minimize the circumstances where carriers discharge the cargo against LOI and of course will reduce the administrative costs. (Underhill and Bibby 2016)

CURRENT LEGAL FRAMEWORK ABOUT ELECTRONIC DOCUMENTS

First of all we have to indicate that the Hague-Visby rules set, clarify and govern the B/Ls limits for merchant fleet and the liabilities of involved parties in the charter. In fact, Hague-Visby rules don't describe the issues of electronic transactions and don't mention anything of eB/L as a possible replacement of paper B/L.

The convention of Rotterdam Rules is the first international sea transport treaty to contain framework provisions for the use of electronic means to supersede or offer an alternative to paper documents by article 8 which states: "(a) Anything that is to be in or on a transport document under this Convention may be recorded in an electronic transport record, provided the issuance and subsequent use of an electronic transport record is with the consent of the carrier and the shipper and (b) The issuance, exclusive control, or transfer of an electronic transport record has the same effect as the issuance, possession, or transfer of a transport document". (UN 2014)

The requirement in its first paragraph of consent to use of such procedures is a central one, but only applies between carrier and shipper and does not require the consent of the consignee. The second paragraph is important in following a so-called "concept of equivalence" or "functional equivalence", under which reasoning must proceed on the basis that the electronic transport record is regarded as the electronic equivalent of a negotiable paper B/L or a non-negotiable sea waybill (or other document). (Treitel and Reynolds 2017)

Furthermore, the UN Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules)in article 14(3) indicates the following: "The 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." This suggests that accommodating an electronic document would not be a major obstacle since electronic signatures are normally attached to electronic documents. The only restriction placed by the convention is that the law of the country where the bill of lading is issued must recognise electronic signatures. (Carr and Stone 2014)

As per Goldby (2013), in addition to the above, UNCITRAL adopted the MLEC in 1996. The MLEC divides into two parts, chapter 1 of second part contains the article 16 (actions related to contracts of carriage of goods) and article 17 (transport documents). It targets to set a legal framework in order to recognize the title and transfer of rights in an electronic application. However, only few countries have ratified, approved and accepted the specific provision. (UNCTAD 2003)

On the other hand, the @GlobalTrade system also incorporates the e-UCP, a supplement, in force since 1.4.2002, to the most recent edition of the ICC's Uniform Customs and Practice for Documentary Credits (UCP 500), the standard set of rules applicable to documentary credits. The e-UCP enables parties to conduct letter of credit operations in an electronic environment in combination with paper documents. The documents are tendered via the internet and the system focus on letter of credit operations and offering a mechanism whereby documentary credits may be negotiated. (ibid)

As is pointed out by Treitel and Reynolds (2017) to use of eB/L to carry out a part of the applications which are executed by paper B/L (under the current legislation) is difficult in practice. The use of a paper B/L to perform what we have called its "conveyancing" function at common law involves the transfer of possession of the paper bill and the same is true under the Carriage of Goods by Sea Act 1992 when a B/L is used as a mechanism for the transfer of contractual rights.

Many of the problems and obstacles against the widespread use of eB/L are commercial and technical but not legal. In case that the concerning parties in the transportation have

the capability to use an eB/L, there is a possibility that the bankers or the insurers disagree with the whole procedure due to security issues or when local/ national rules demand the traditional paper B/L. As a consequence, it's easily to understand that exists a commercial hesitancy to include the paperless transactions into the paper world of insurance and financial groups. (Aikens, Bools and Lord 2006)

In the previous context we described some attempts of previous decades which aimed through their different methods to establish the new electronic type of B/L. Specifically, we mentioned the Bolero system that under his rules sets the control of the transactions between the parties governing always by the English law. (ibid)

Afterwards, we should mention that ESS-databridge is approved by important associations worldwide such as: LEAP, oil majors, tranding houses and banks ITIC, ship agents and inspectors, P&I clubs and TT club. (Goldby 2013)

The international group of P&I clubs has approved the following systems: Bolero, E-title and essDocs. It means that the involved people or companies using the approved systems will have the cover of the Club for P&I liabilities in case of incidents and they will also avoid the risks and dangers of non-approved systems. (P&I Club 2017)

Then, South Korean Government rules and controls the private company which called KTNET. The legal structure of that country ensures that all the procedures will be followed according their standards of eB/L. (Goldby 2013)

Moreover, in line with UNCTAD (2003, p.15) another framework which can support electronic commerce is the e-UCP Code because it "enables parties to conduct letter of credit operations in an electronic environment".

Then again, the most recent adoption of a treaty related to electronic commerce is "United Nations Convention on the Use of Electronic Communications in International Contracts" which entered into force on 1st March 2013 and aims to verify that contracts in electronic environment are "are as valid and enforceable as their traditional paper-based equivalents" (UNCITRAL 2016). Additio nally, as per UNCITRAL (2016), this Convention "is particularly recommended for those jurisdictions that have not yet adopted any legislation on electronic commerce".

UNCTAD (2003, p.15) recognises the ambiguity of international law regarding eB/Ls and illustrates that because of the absence of harmonised statutory related to electronic documents of title, numerous methods have been established in order to generate eB/Ls by formatting specific contracts with precise provisions requiring all parties to treat the electronic document exact the same way with the paper one. As per Mills (2014, p.89) an eB/L which is produced by the form of multi-party contract is Bills of Lading in the eyes of the parties who sign the contract and it is not Bill of Lading in the view of the law. These parties constitute particular contractual systems which are also known as "closed systems" (ibid).

CONCLUSION

In order to excess the created problems due to paper B/L it is vital importance to replace the traditional B/Ls with the new electronic type of it. Of course the existed legal framework need to be revised or add the new parameters which the technology brings to us.

As we described in the previous chapters the first steps have already executed and eB/L have used in some cases. These steps could be affect the procedures in the initial stages of widespread use of eB/L. The advances of eB/L are many: reducing costs, better security measures, faster discharging of cargo at the end of trip and higher efficiency. But, the truth is that eB/Ls are not used in the most of countries at the moment and the main obstacle is what has been termed "traditional inertia". (Yiannopoulos 1995)

Indeed, the legal issues relating to the eB/Ls are few such as the need for legislative authorization attributing to electronic commu-nication the function of traditional writing and signature requirements, deter- mining the probative effect of electronically generated prints, and establishing the negotiability of eB/Ls. The eB/L is essentially a business rather than a legal decision. The international and domestic law will supply the legal framework for the electronic documents as for the traditional paper documents in order to be operational and useful. Even though, business interests will eventually determine the use of eB/L outweigh concerns for privacy and the safe guarding of trade secrets, for accurate information and safe transactions and acquisition. (ibid.)

The future belongs to eB/L and all the participants have to work in that direction. We mean that a co-operation of involved parties (e.g. ship-owners, shippers, masters, agents, charterers etc.) is very important in order to achieve our target.

In the current shipping and trading world, it is clear that the potential benefits from eB/Ls are enormous and that this is the most accurate solution for delivering goods without the production of paper B/Ls. Obviously, it is also clear that many stakeholders are not confident to use eB/Ls because the legal framework of electronic documentation is still ambiguous. Apparently, The Rotterdam Rules were not adopted widely, and the other international treaties do not thorough cover the subject of electronic documentation.

However, it is evident that there are other options if the shipping business desires to use eB/Ls. It is not necessary for the industry to wait for a new convention to commence electronic transactions. The existence of clear international legal frameworks in many jurisdictions which allow e-commerce and the closed systems which have been developed these years indicate that the trading market is moving towards to electronic solutions about the B/Ls.

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