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The Role of the Shipbroker in the Break-Bulk, Multipurpose & Heavy-Lift Sector

Scope:

This paper will analyse the unique role of a Shipbroker trading in a small niche market within the Multipurpose/Heavy lift (MPP/HLV) Shipping Sector. The role of the shipbroker will be analysed in terms of how they need to interact with various industry stakeholders in order to be successful in dealings with their customers and, of course, turning a profit. Given the extremely tough economic conditions the world, and especially the shipping industry are facing, the theme of this paper will be how MPP/HLV brokers will need to adapt in order to survive and flourish in the future.

Contents

1.0 Foreword

For the nature of the industry and region this paper is examining, there is very little available in terms of hard facts and scholarly research information or data. This trade is sporadic, non-uniform, unpredictable and to a larger degree unmeasurable. Whilst prominent consulting firms such as KPMG, Kinsey and Drewry have published reports covering the Multi-Purpose and Heavy-Lift markets, these have mainly been related to total capacity in the market, average age of ships, average idle time and at best some freight data related to certain projects. Although, these reports and forecasts have been known to directly contradict the actual state of the industry. In 2010 there was an article in Tradewinds showing that the three super-heavy-lift operators SAL, Biglift and Jumbo Shipping had the worst year ever for idle time. This was never addressed formally, but following an informal discussion with a representative of one of these firms, super-heavy-lift ships sitting idle can often be a sign of an extremely strong market – if one of these owners has fixed a single shipment paying several million dollars two months from now, they would rather leave their ship sitting idle for those two months than take a few 'spot' lower paying cargoes and risk being late for the 'main' cargo, or the highly specialised and very expensive ship being damaged in the meantime.

Whilst this is an unorthodox approach to such a formal literature piece, the writer asks the reader to look past the shortfall in factual data and take a novel view towards this paper, and the very niche corner of the industry it is examining. The purpose, after all is not to present a research report to a board of directors or shareholders, it is to provide insight into the role of a shipbroker in the Multi-Purpose and Heavy-Lift trade in Australia, with the hope that others in the industry can benefit from this insight somehow.

2.0 Introduction

Before Porsche begin mass-production of a new concept car such as the hybrid 918 Spyder, they will select their best test-drivers and send a team to the Northern Territory of Australia for the cars to undergo rigorous road testing[1]. Many of the roads do not have speed

[1] http://www.porsche.com/australia/aboutporsche/christophorusmagazine/archive/373/articleoverview/article07/

limits, the temperatures can be as hot as 50 degrees Celsius or as cold as negative 10 degrees Celsius. Tornados known as 'Willy-Willies' can sprout up out of nowhere producing 150 km/h sand-storms, the roads are often poorly kept, it is not uncommon to encounter 'Road Trains' with up to 6 trailers travelling at over 160 km/hr and there are large animals such as Kangaroos, Emus and Wild Pigs frequently crossing the road unexpectedly. Moreover, the nearest petrol station or even hint of civilisation can be 3 hours' drive away, even in a Porsche. The long-standing performance car marque obviously consider that if their new concept car can survive and perform well in the Northern Territory of Australia, it will perform well anywhere. They will even put some of their older models through this testing process to see how well they have stood the test of time.

The same could be said about a Shipbroker working in the Australian shipping industry. Whilst many factors such as high costs, governmental disincentives (whether accidental or not) and general remoteness mean few companies engaged in shipping activities are headquartered in Australia. Though the world's largest Island nation is still a significant part of the global shipping industry. Whilst it is well known that Australia is the world's largest exporter of coal & iron ore, few would know that Australia is the largest exporter of bagged rice,[2] has one of the world's largest and most expensive LNG plant (Gorgon LNG [3]), more offshore drilling rigs in its national waters than Europe and Africa combined[4] and until recently was the largest importer of Caterpillar and Komatsu machines. As of 2014 Australia was ranked the world's 12th largest economy, narrowly behind Canada and Russia[i].

Whilst the Shipbroker working in the Multi-Purpose and Heavy-Lift (MPP/HLV) sector in Australia does not have to deal with pigs running across the road when travelling at 350 km/h as the 918 Spyder's test-driver does, they do have to deal with complex cargo operations in remote areas with extreme weather conditions, a waterfront workforce that could often be described as 'militant', being very far away (in terms of distance and time zone) from decision-makers on both shipowners' and charterers' sides amongst many other challenges. Hence this unique trade makes for an interesting study, one which can hopefully aid to defining the role of the shipbroker in today's world, and what this role will look like in the future.

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[2] Ricegrowers Association of Australia http://www.rga.org.au/the-rice-industry.aspx

[3] Gorgon LNG Project https://www.chevronaustralia.com/our-businesses/gorgon

[4] AUSTRADE rig Count *https://www.**aus**trade.gov.au/ArticleDocuments/2814/Oil-and-Gas-ICR.pdf.aspx*

3.0 Development

This section will examine the traditional role of a shipbroker in the MPP/HLV field in Australia and show how this has developed into the modern role in 2016

3.1 Traditional role

Before Malcolm McLean's famous 'MV Ideal X' made her first voyage as a dedicated container ship April 26th 1956[5], most loose cargo was carried as break-bulk or General Cargo. Whilst little data or hard evidence is available on the day to day operations of a general cargo shipbroker in pre-containerised Australia, an interview with a fellow of the ICS who preferred to remain anonymous revealed that "the owners told you when their ship was coming, where it was going and how much space you had to fill … then you went about filling it, and earning your commission".

An example would be a telex sent by a Dutch owner to their representative in Australia

"MV BERGEN 2399 DWT 2 DRK 15T CBN 30T TT 900SQF TWN 700SQF DCK 800 SQF BRI 25-30/9, SYD 1-10/10, MEL 10-20/10, SIN 1-10/11, BKK 10-20/11"

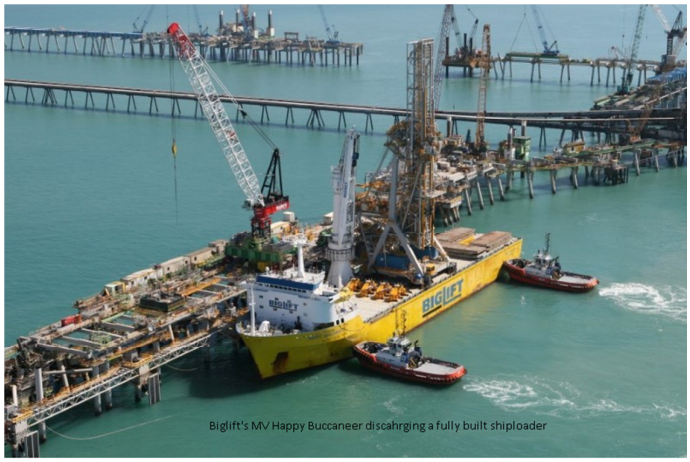
Basically saying their Ship which can lift up to 30 MT has space available and intends to call the Australian major ports before proceeding to Singapore and Bangkok, these measurements would of course have been in pounds and cubic feet. The broker would mail or telex this to their charterers who would then send back their orders. The broker would then sketch a stow plan, determine what cargo can fit on board, and how it will be stowed, then propose to the owners. They would liaise with the local port agent who would arrange the ship's arrival, and the broker would ensure all cargo arrives at the wharf for shipment. In smaller ports such as Brisbane, it would not be uncommon for a broker to find all the cargo owners, a representative of the ship's agent, the harbourmaster, his lawyer, accountant and insurer at the same wharf-side bar such as the Breakfast Creek Hotel at the same time. Hence communications (and life in general) were quite simple. This particular interviewee, aged 89 recalled a conversation he had once with another broker about

[5] Malcolm McClean and Ideal X – The Economist http://www.economist.com/node/638561

computers, electrical hydraulic cranes and jet airliners, claiming none of them would ever become common-place because of their cost, complexity and lack of reliability.

Though despite these predictions, overseas demand for more efficiency, better delivery times, less cargo spoilage / loss and of course lower costs changed this way of life and business drastically since the 1950's

3.2 Influence of ship design/development



Biglift's MV Happy Buccaneer discahrging a fully built shiploader

Whilst the advent of containerisation quickly took away the smaller parcels of cargo from the Australian General Cargo broker's cargo mix and threatened to wipe out this profession altogether, the advent of modularisation and the development of dedicated heavy-lift ships added a completely new dimension to their role and arguably made them more valuable than ever.

In the 1960's and 70's Australia was in transition from its major exports being agricultural products, to the export of mined commodities[6]. This meant that mines were rapidly increasing their capacity and hence needing to construct very large machines. An example of these are quayside Shiploaders, yard machines such as Bucketwheel Reclaimers (also known as Stacker/Reclaimers), Run of Mine (ROM) bins and dragline buckets. In extreme cases these machines can be more than 50m long, 20m wide and 15m high, weighing more than a thousand tonnes. The rapid growth in size of these machines meant that it was becoming increasingly difficult to build these on site (known as 'stick-building'), especially when many of the mine sites and export terminals are in very remote areas such as Port Hedland, Abbott Point and Kwinana. The main issue was getting skilled labour and building materials to these areas. The solution was building as much of these machines as possible in more industrialised areas where labour and materials were plentiful. This began at shipyards such as Evans Deakin Industries in Brisbane, Cockatoo Island Shipyard in Sydney amongst others who already had proper heavy-duty equipment for building and handling large machinery.

[6] Australia's transition (Land Use) https://www.environment.gov.au/science/soe/2011-report/5-land/3-pressures/3-3-land-uses

In response, specialised Heavy-Lift (HLV) ships were developed, incorporating stronger decks and heavy-duty cranes. An example of what was for many years the pinnacle of HLV's was Biglift Shipping (at the time Mammoet Transport)'s MV Happy Buccaneer built in 1984 and still trading to this day. She has 2 x 700 tonne cranes, combinable to 1,400 MT, and a ramp with 2,500 tonne capacity[7]. Mining companies and other heavy-industry companies could now build pieces of equipment almost to their full size either at shipyards in Australia or more recently in North Asia, South-East Asia, South Asia, the USA and Europe.

This trend forced general cargo shipbrokers to 'develop or perish'. Whilst a lifting plan for a piece of cargo in the 1960's in Australia involved a general discussion on the quayside or bridgedeck with the chief mate, stevedore's foreman and cargo owner, with the advent of modularisation it now meant very complex engineering activities. Crucial to the success of a heavy-lift on and off a ship include items such as stability, the cargo's centre of gravity, its structural integrity, position and strength of its lifting points, effect of accelerations it will undergo while in transit at sea and whilst being lifted amongst others. Other considerations included where to source lifting / lashing equipment (for example a spreader beam used for a 1,400 tonne lift can itself weigh 50 tonnes and not be that easy to transport), strength of the quay the unit is being placed on what the weather conditions will be like at the time the lift and shipment are due to take place. The consequences of getting these calculations wrong could mean capsizing and sinking the ship, completely destroying the module, a whole wharf or dropping the module into the sea resulting in a whole port's trade being stopped until the piece can be dismantled. The costs of these consequences could be hundreds of millions of dollars over several years, also considering risk of injury and loss of life.

Whilst the stakes became a lot higher, and work a lot more complex and intense for the MPP/HLV shipbroker, it gave them a lot more opportunity to add value and justify their position as an intermediary over and above their traditional strengths of market knowledge and general network. The ones that did develop their skills and knowledge flourished.

3.3 Effects of efficient communication including email, the web and social media

The next advent that threatened to drive MPP/HLV shipbrokers to extinction in Australia was the internet and email becoming effective and trusted communication /

[7] MV Happy Buccaneer http://www.bigliftshipping.com/fleet/happy-buccaneer

information mediums throughout the mid to late 1990's. Brokers feared that shipowners and customers would be able to reach one another and do business online easily hence negating the need for an intermediary. This was, to some extent the case in container shipping, tanker and bulker trades, however in the break-bulk shipping world the advent of e-commerce not only made the broker's role even more valuable, it also helped the broker to do their job more efficiently.

As said by a prominent industry figure who was interviewed on this subject "The General Cargo broker's role has always been to take what the charterer and shipowner perceive as a complex, unfamiliar situation and simplify it using their skills, network and knowledge. E-commerce set out to do the broker's job itself, but inadvertently it forced such great volumes of information onto both parties and such a high speed that it actually added more complexity, more uncertainty and on top of that more time-pressure. Suddenly people's idea of a 'reasonable amount of time' to complete a task or respond to a message was reduced greatly, given they now had these fancy new electronic tools to make their jobs so much easier. Not only did the broker's role as a reducer of complexity and uncertainty become more significant than ever, they gained a new role – time saver, and we all know that time is money in shipping."

A short note on social media. Whilst it has served as a fantastic medium for sharing pictures of cargo loading/discharging, organising social events, promoting new services and sharing news, up until a few years ago it was deemed to have had very little commercial impact on MPP/HLV brokers, especially in Australia. Though the way Social Media tools are being used by the younger generation as opposed to the older generation is causing a significant change. This will be examined in a later section.

3.4 Changing nature of cargo, charterers and ports' effect on brokers

As described earlier, the cargoes handled by a MPP/HLV broker in Australia have become larger, more complex and increasingly more time and cost related. With this has come the rise of freight forwarders who have taken the place as a second intermediary between the cargo owners and the brokers. With more Australian-related cargo owners and charterers having centralised their operations in main Asian commercial centres such as Singapore, Hong Kong, Shanghai, Tokyo and Seoul, they rely more and more on having local expertise on the ground in Australia. With cargoes becoming larger and more complex, the demand for local companies on the ground in Australia to coordinate the intensive inland transport task has also increased. Freight

forwarding companies therefore developed a new ‘brand’ as Project Logistics Providers (known colloquially as Project Forwarders) and there are now many bespoke freight forwarding companies set up and operated solely as Project Logistics Providers, such as Trans-Global Projects, Deugro Projects and Bluewater Shipping. These companies offer a strong value proposition to customers seeking a door to door logistical solution, and in turn these Project Forwarders in many cases have become the MPP/HLV Shipbroker’s customers. Whilst the Project Forwarders have indeed taken some market share and general responsibility off the shipbroker, in many ways they are a better customer than a ‘direct’ cargo owner because they know the trades well enough to be efficient to deal with, and they themselves as intermediaries tend to respect the Shipbroker’s channels and not attempt to ‘cut out’ the broker. In most cases it is not in the Project Forwarder’s interests to attempt to avoid a broker because they are then spending a lot of time and money trying to provide their customer an added service, when it would be more economical to stick to their core task as a supply chain manager, and be prepared to outsource the various modes of transport as they require them.


Large prefabricated module

Related to this, the changing nature of ports in Australia has also changed the role of the shipbroker. Since the introduction of the ISPS code and the general demand for safety and security at ports, the amount of paperwork and ‘red tape’ faced by those trading with Australia has increased astronomically. On top of this, the balance of power held by environmentalist lobby groups has greatly increased in Australia in recent years, adding many more operational tasks and formalities for anyone wanting to import or export to or from Australia. The shipbroker has had to absorb a lot of these tasks, such as being able to present the right forms for the cargo interest to complete, know who to talk to at the various port authorities and customs/quarantine organisations to get the best result and of course maintaining their traditional role of carefully guiding their charterers and shipowners through the regulatory minefield. The Project Forwarders have also brought it upon themselves to offer this ‘consultancy’ type service to their customers as an additional to their traditional customs brokerage service. If there were to be a division in tasks, if the shipbroker is dealing with a Project Forwarder, the project Forwarder will take the Port Consultancy task, whereas the Shipbroker may carry out these tasks for a direct cargo owner.

Section 3 Recap – A brief insight has now been provided as to what the traditional role of the MPP/HLV shipbroker has been in Australia, and how it has developed into the modern role. The paper will now continue to examine this modern role further.

4.0 The types of customers, shipowners and other stakeholders MPP/HLV brokers need to be familiar with, and where interdependencies lie

The next stage of analysing this MPP/HLV shipbroker's role in Australia to provide insight into the stakeholders the Shipbroker deals with in day to day business. This section will focus mainly on the interdependencies existing between the various parties and how these affect the Shipbroker's role and position.

4.1 MPP/HLV Brokers' typical charterers

The charterers a MPP/HLV shipbroker deals with can be grouped into three main categories

Direct cargo owners
Engineering, Procurement and Construction Management companies (EPCM's)
Project Forwarders

The role of the broker changes according to which type of customer they are dealing with.

Direct cargo owners often have little or no prior knowledge of shipping and the broker will have to carefully 'nurse' them through the process, often having to explain the unpredictable factors surrounding the carriage of goods by sea, the inherent unavoidable risks, and why it's necessary to agree to such terms as 'Freight deemed earned and non-returnable vessel and / or cargo lost or not lost' … basically meaning even if the shipowner loses their cargo, the freight is still payable.

An example of where a broker will deal with a cargo owner is on a shipment or project where the cargo is loading direct from the shipper's facility, or delivery 'under the hook' for loading on board the ship is being organised by another party. Shipping commercial vessels from one place to another is also a type of shipment where the vessel's owner with deal via a shipbroker because the only service they need is starting from the ship's hook at loading port and ending at the ship's hook at

discharging port. In many cases the broker will be engaged to ship a company's equipment from one place to another whilst still being under their ownership. Or on the other hand it will be either the buyer or seller of the cargo seeking the shipping service. This is where the Shipbroker will act as a pure competitive broker, bringing the direct cargo owner offers / proposals from several shipowners and following the cargo owner's instructions on which one to negotiate firm, and eventually book with. Due to the relatively few number of multi-purpose and heavy-lift ships around, especially in a remote region such as Australia, cargo owners do recognise that they are depending heavily on these handful of shipowners in order to delivery their cargo to its new owner, or bring them their purchased item as the case may be, so dealings with direct cargo owners tend to be very civil.

The EPCM's the broker will deal with, such as Jacob's Engineering, Bechtel, Worley Parsons and Halliburton tend to be better versed with shipping processes than the direct cargo owners, and may even have internal logistics departments within their procurement function who the broker will deal with. The EPCM will be in charge of managing a whole construction project and they often have very strict requirements in terms of what types of ships they are allowed to use. In extreme cases the ships will need to be Offshore Vessel Inspection Database (OVID)[8] compliant, be less than a certain age, be fitted with a bow thruster and even be fitted with a variable pitch propeller in order to manoeuvre quickly if needed. Offshore projects will often require heavy-lift vessels or module carriers to be fitted with Dynamic Positioning (DP) of various degrees to keep the vessel in one place without anchoring or berthing. The load port for shipments controlled by an EPCM may often be a module yard's private berth, and the discharge port will often be the project's Material Offload Facility (MOF), both having their individual requirements and limitations, which the Shipbroker must make the shipowners aware of.

Put simply, the key role of the shipbroker when dealing with an EPCM is a translator of 'Engineering Speak' to 'Shipping Speak' and vice versa. This is where the broker needs to have a fair degree of technical knowledge about the cargo they are shipping. The EPCM are very focused on the technical aspects of their cargo, and the shipowner focused on the practical aspects of the voyage, and there are often gaps that the

[8] OVID - https://www.ocimf-ovid.org/

broker needs to help fill in. A typical situation a broker has to manage is the EPCM saying ‘we are not proceeding with the fabrication process any further until the shipowners tell us how they need us to design the unit to be lifted most effectively’, whilst the shipowner’s response is ‘we cannot provide you technical details on how we’re going to lift your cargo without knowing what the final product looks like … because up until now we don’t actually know what we’re lifting/shipping’. Without the broker, the EPCM might say ‘this is too hard, let’s break this piece down and ship in containers’ while the shipowner might say ‘this is too hard, I’m taking this cargo of steel pipes instead. The broker then has to help the two parties provide different scenarios and options, and facilitate the process of eventually agreeing how and when to ship their particular cargo. This is where the interdependencies exist when dealing with EPCM’s, they are the customer but at the same time they often rely a lot on the broker to facilitate and often mediate dealings with the shipowners.

In recent times where EPCM’s are operating on very low staff numbers, the broker may have an opportunity to offer consultancy services, this will be examined in Section 6

The most common dealings nowadays are with a Project Forwarder. These are the least work but also least reward. The Project Forwarders are usually very well acquainted with the market and really just approach the broker with the task of finding the best ship on the best dates at the best price. The Project Forwarder will in most cases have agreed a door-to-door price with their head client, so will negotiate very hard with the shipbroker and the owners they are representing in order to make the shipment profitable for them. The Project Forwarders are gaining strength in the market due to their ability to offer door to door solutions along with tracking tools and in some cases advanced supply chain management, stock keeping and forecasting services. It is important for the modern MPP/HLV broker to cater for the needs of these types of customers

4.2 Shipowners and the importance of relationships

Another important trend that has affected the role of the shipbroker is shipowning companies increasing the reach of their centralised chartering desks. Further to comments made earlier on e-commerce, whilst it has indeed favoured many brokers since its inception, there is no doubt that it is becoming much easier for charterers and owners to reach each other directly. And e-commerce itself is not the issue, it is the trend towards the 'Major' MPP shipowners such as Austral-Asia Line, Thorco, BBC and Intermarine wanting to increase their marketing scope and get in touch with more charterers.

For this reason, it is important for a competitive broker to have a very strong relationship with one or more 'minor' shipowners who still take the traditional approach of relying on brokers and agents in various regions. The negative side for this shipowner is that there may be days where the broker is presenting their vessel alongside several others, the broker of course being motivated to fix the cargo and earn a commission, however the alternative is trying to beat the majors at their own game by setting up very costly local offices and hiring even more costly chartering staff.

A boutique owners' vessel
MV Vectis Progress

4.3 Interactions with local operational service providers

In some cases a MPP/HLV shipbroker may be part of a Ship's Agency company, or vice versa. Or at least they may have agreements with various Agency companies at ports they regularly deal with. Given that part of the shipbroker's role is to reduce complexity and help their customer handle something they would otherwise not have been able to do themselves, the broker will often have to liaise with the port agents, authorities or even stevedores. Whilst the onus is typically on the shipowner to handle these matters, some owners prefer the broker to act on their behalf.

The most important thing to note is that a broker is still just a broker and cannot act outside their principal's authority. In many cases there will be operationally critical situations that require quick action, and several parties demand the shipbroker to make an 'executive decision' outside their owners' authority, although due to time zone difference the broker may not be able to reach the owners for another half a day or so, meaning they miss a berthing window and have to wait at anchor for several days. An example is when a ship is discharging at a congested port such as Haiphong and the charterer's nominated berth is heavily congested. The agent may say there is an alternative berth the ship can call and the charterers agree to this in principal. However the broker has to arrange for the charter party to be amended to cover this due to liability issues, and if they are working during early morning Vietnam time and the owners are based in Denmark (one of the major MPP shipowning nations) then they will not be able to reach their principals until Denmark opening at around 15:00 hours Vietnam time. The Charterer may be upset because they see an easy solution to the problem and believe that they shouldn't let 'paperwork' stand in the way of them achieving an operational solution, so the broker has to help them understand the reasons behind this decision and guide them accordingly.

So a broker has to be very cautious when dealing with local service providers on their charterer's behalf. On one hand they need to provide good service to their charterers but on the other hand they have to remember that the shipowner is their principal in most cases and they must keep to their bounds of authority.

4.4 Importance of trust and integrity

A brief note on trust and loyalty. Even in an age where many brokers, owners and charterers can be reached via phone, email and myriad of social media tools such as WhatsApp, Skype and Facebook Messenger, there are still cases where something has to be agreed verbally and covered in writing at a later date. For example if a charterer has a prompt cargo needing to load in Singapore and the owners have a ship passing Singapore at that time, if the ship steams too far away from Singapore it will increase the cost of steaming her back to load the cargo so a very quick decision needs to be made. Whilst the broker may be in the office, the charterer may be at a remote worksite such as Far North Queensland where they only have limited phone reception and no access to email. Meanwhile the shipowner's representative may be at a client meeting. The broker may have to conduct the whole

negotiation and even agreement over the phone, then draft the recap and booking note for both charterer and owner to review whenever it is they have a chance to use a computer next. For this reason, it is very important that the broker can trust both owner and charterer not to change their mind about the shipment during that period then ignore what was agreed, citing 'it wasn't in writing'. Once again the shipowner may need this particular cargo, and the charterer may need the cargo to be loaded urgently, so if they are to depend on each other they need to trust each other.

5.0 Day to day 'Engine Room' dealings of MPP/HLV brokers

This section will give a brief, technical insight into the day to day tasks a MPP/HLV shipbroker is required to carry out, hence giving background on their role on a day to day basis.

5.1 Examples of typical shipments

Shiploader 1,430 MT, loading at Daewoo Industry's shipyard in Mokpo, discharging at Abbott Point Coal terminal in Queensland

Five second hand Caterpillar 777D Mine Haul trucks that have been sold by an Australian Copper and Gold mine due to an upgrade, purchased by a coal mine in Chile that does not require as new equipment as the Copper/Gold mine. The units may weigh around 150 MT each and may need to be driven under their own power on the ship in order to optimise stow.

8,500 CBM of Pre-Fabricated Steel Trusses to be shipped from Baosteel's private berth on the Huangpu River in Shanghai and shipped to Darwin, Northern Territory to form the base of a new Flare Stack tower being constructed by a refinery. The pieces may be very long and relatively fragile and require intensive planning to ensure their structural integrity is maintained during shipment.

A brand new 40 metre alloy high-speed ferry to be shipped from its manufacturer, Austal's yard in Western Australia to its new owner, a Spanish high speed ferry operator servicing the Barcelona to Morocco route. The broker may be involved at very early stages of design, to

ensure the ferry is 'built to be lifted', with lifting lugs installed at accessible strong points on the deck, and keels / skegs that allow the ferry to rest on the ship's deck without needing a complex / intricate cradle.

5.2 Technical knowledge, research techniques and management skills required

5.2.1 Technical Knowledge

Whilst a broker seldom conduct any 'hard' technical tasks such as stow planning, lift studies, stability calculations and safety procedure studies, they will certainly have to vet those provided by others and ensure they are correct before passing to charterer or owner as the case may be. A detail that is considered minor to one party may be of critical life-or-death importance to another, the broker has to 'sniff test' every piece of information and act as a safety net for any details that may not have been conveyed correctly.

An example is a 180 MT, 350 MVA Transformer to be shipped from Alstom's manufacturing facility in Xiamen, China to a power station built especially for the Gorgon LNG Project in Western Australia. The transformer is to be shipped using a vessel with 2 x 100 MT cranes, so when around 10 MT of lifting gear is included and one considers that due to the transformer's short length relative to its weight (hence the cranes needing to be very close together when lifting, there is very little margin for error. The broker receives very detailed technical information from the charterers about the transformer, but before passing this onto the shipowner's port captain, realises that nothing stipulates whether the transformer is filled with oil or not. After checking with the charterers, they then confirm that the factory had in fact filled the transformer with oil which would have increased its weight by 12 MT, hence overloading the cranes. In this case the shipowner's port captain is only responsible to load the cargo that has been described by the charterers, if they misdeclare the cargo the

owners in most cases are allowed to charge full, or sometimes double deadfreight and sail the vessel without the cargo. On the other hand the foreman or logistics manager at the factory in China may be under pressure to deliver the transformer with as little cost as possible, hence decides it is cheaper to ship the oil inside the transformer so it is included in the same freight rate as opposed to shipping it separately for extra cost.

This is a simplified example and would likely never happen, but does show how the role of the broker can be to bridge accountability gaps and often use their own technical experience to solve problems that others may not have noticed, or is not part of their job to notice.

5.2.2 Research Techniques

A major role of a broker in any trade is market intelligence. Even in this age of the internet, instant communications via social media and seemingly full availability of information … a broker still needs to know off the top of their head which ships are where at any given time, who owns or manages them, what their regular trades and technical capabilities are. Brokers do of course also have to know what cargoes are in the market and which vessels they suit.

The MPP/HLV broker in Australia often has to act as charterers' and owners' broker at the same time (albeit the charterers and disponent owners may be intermediaries themselves) so needs to be well researched in both sides' business and markets

The obvious research techniques apply; the internet, maritime publications such as Lloyds' List Australia, Heavy Lift and Project Forwarding International (HLPFI), Australian Mining News, Project Connect News and position list broadcasts from carriers. However, as with the traditional broker's role, the main information still comes from word of

mouth. A carrier may not always publish the positions of their whole fleet, some may be sailing with part cargoes and they may only disclose her position and space availability to trusted parties. This is commercially confidential information, which could be harmful in the hands of their competitors, so it is important for the broker to be considered a 'trusted party' by the carrier or owner. Same applies to charterers; they may have been awarded a very lucrative shipment, and the broker needs to ensure they are first point of call for that charterer. Project shipments often take a long time to execute, so the broker may need to be involved several months out from the shipment date. Those who are not 'in the know' and not involving themselves from the very beginning stand a poor chance of executing the shipment when the cargo is finally ready to ship.

5.2.3 Management Skills

Time management and the ability to delegate effectively are very important skills, while the broker is spending time on non-value-adding activities they are not carrying out their primary role which is fixing shipments. A broker has to efficiently manage extremely high volumes of email traffic and strike a delicate balance between leaving their post-fixture department alone to their job whilst also looking inconspicuously over their shoulder to make sure they are conducting the operations to the best interests of their principals and not being 'bullied' by anyone. They need to be constantly up to date with the market, be talking to customers and shipowners regularly but also need to spend time wandering around in the 'engine room' ensuring that freight invoices have been issued, commissions have been paid, owners' operations and finance departments fulfilling their tasks and deadlines being met.

6.0 Challenges faced by MPP/HLV Brokers and what is necessary to overcome these

Like any intermediary, whilst a broker is adding value then charterers and owners then the respective parties will be happy for them to exist, though if either charterer or owner find a way to create the same value without the need for the broker, then the broker's role is of course at risk.

6.1 Shipowners and charterers aiming to cut out brokers

As mentioned in an earlier section, there are several multi-purpose shipowning and managing companies who have their own in-house chartering teams who market themselves directly to charterers. Similarly there are project forwarding companies who also have their own internal chartering teams and are therefore fully capable of working directly with owners. There is no space for a broker in this equation, if a shipowner's dedicated chartering team are seen to be using brokers, then their management will raise questions surrounding their value … and from the charterers' side; if an individual or team are employed to charter vessels based on their knowledge of the market and relationships with shipowners, then if they are seen to be using brokers this also detracts from their value to their employer. So whilst many would say it is the influence of cost that threatens the existence of a broker this is in many cases not correct. A shipowner's annual commissions payable to a broker may only be a fraction of the comparative cost of hiring a dedicated chartering employee, let alone a whole chartering team. The main issue is control, and many owners and charterers alike cannot seem to be able to put faith in a broker to keep their interests to the fore, the way they can with their own in-house teams.

6.2 Miscommunications, miscalculations and how quickly a shipment can get out of control

Further to previous notes on a broker's technical capabilities, one of the broker's most important roles and providing flawless attention to detail. Unlike accounting, finance, medical, engineering or other such professions, there are often no checks or balances in place for a broker. Especially in the MPP/HLV trade in Australia where it is rare to encounter two shipments the same. There are indeed basic procedures in place, but it is simply impossible to have systems or standard operating procedures when the range of shipment types is so diverse. It would be a matter of almost re-writing every procedure for every individual shipment, which of course would take up valuable time which should be spent executing the shipment effectively.

This leaves the broker in a precarious position. Once again, a broker cannot act outside their authority, and if they take a single step outside their authority they become fully liable for whatever happens as a result, and in many cases this is not an insurable situation.

For example, a broker books a coastal shipment of large hardwood timber structures from Bell Bay, Tasmania to their destination of Brisbane. Due to the ship arriving the morning after the shipment is booked, the broker has to very quickly draft and send the recap and have the charterers sign the booking note. The charterers have done business with the broker for many years and put blind faith in that broker to prepare everything correctly. Throughout the negotiation process, the broker remembers that the pieces have certified lifting lugs, and includes this piece of information in the shipment recap, and subsequently the booking note. The owners and charterers then sign the booking note, the charterers not reading it too carefully. The shipowners ask their agent to purchase enough lifting chains and shackles to lift the full and complete shipment of wooden structures according to the stow plan, which the charterers have also agreed to. Upon arrival at the terminal, the shipowners discover that the pieces are in fact not fitted with certified lifting lugs and need to be sling-lifted. Bell Bay is a remote port and purchasing / delivering the required slings would take around 7 days. The ship is already late for her next employment for a regular customer, so instead of waiting for 7 days at Bell Bay on detention, the shipowners instruct their lawyers to demand a full deadfreight payment from the charterers, and exercise their right to sail the ship without loading the cargo. This leaves the charterers with a deadfreight bill exceeding USD 600,000, several thousand cubic metres of cargo sitting at a terminal which needs to be moved (perhaps back to a yard that has already been filled with other cargo) and a court-case to fight against a shipowner in London, the contract being governed by English Law. The charterer may have no choice but to claim against the broker for negligence. This is again a simplified and extreme example which would likely never happen in practice, but does show how important it is for the broker to uphold their role as a safety net for information that may not have been communicated properly.

6.3 The broker as salvage / search & rescue crew if the disaster was out of their control

In many cases a disaster situation will be out of the broker, or anyone's control, though nonetheless there will be parties from every corner looking for a party to point the finger at and hold liable for losses. So even though a disaster may not be the

broker's fault, if they do not act very carefully and in a timely manner they can lose control of a situation and start to become the cause of the problem getting considerably worse.

For example, there was a case recently where a Multi-Purpose ship was carrying 80 tonne, 40 metre long LPG Bullets (large pressurised tanks used at an LPG plant), taking up her whole deck. The vessel encountered severe weather conditions and rolled heavily. Even though the cargo was lashed securely to the satisfaction of the master, the port captain and the charterer's technical advisor, the lashings broke loose and one by one the LPG bullets rolled off the deck into the sea[9]. One struck the side of the vessel causing serious damage to the hull and the ship needed to proceed to the nearest port to undergo emergency repairs to stay afloat. So not only did the charterer lose their cargo worth tens of millions of dollars, the shipowner also charged them for the repairs done to their vessel, caused by the charterer's cargo.

In this case the broker would have to oversee the whole claim process, provide facts about the shipment to lawyers, insurers and the like and often help calm very heated / aggravated individuals from both sides. Whilst this is largely out of the brokers' hands, if they do not have crucial information such as survey reports, lashing plans, loading documents and cargo details on hand then they could find themselves caught up in very nasty arguments and even absorbing partial blame for the consequences. So the role of a broker in a 'search and rescue' situation is to always act strictly within their authority, be very efficient with providing information and do their best to pacify individuals who are angered by the situation.

7 Future growth and development; Strategies for MPP/HLV brokers to continue to add value and remain successful in years to come

There is no doubt that the MPP/HLV broker will need to evolve in order to survive. They are 'stretched' between the shipping industry whose technical advancements are slow and steady, and the Project Logistics industry whose technical advancements are regular and rapid.

[9] Cargo lost overboard - http://www.theshippingbloke.com/2012/11/so-i-lost-business-to-freight-forwarder.html

7.1 Making use of online tools

The main benefit of online tools for a broker, so far has been to speed up the research and communication processes. This trend seems likely to continue. There has been a rise of solely online-based brokers in the MPP/HLV industry in Australia, but so far none have gained any significance nor have been known to fix any shipments whatsoever. Whilst this model may work for basic bulk or liquid cargoes where very little technical expertise is required, it is unlikely that anyone would trust a company with no fixed address to handle risky and technically demanding shipments.

Online portals' popularity will no doubt affect the brokers' role more and more

- Linkedin – This has gone from being an online business card / resume repository in its early days to being a place where industry representatives organise events, share opinions and even discuss upcoming projects. A broker needs to have their Linkedin profile up to date and actively contribute to discussions in order to build their online presence and show others they are involved in the industry on a day to day basis. The older generation and many industry stakeholders may not take Linkedin seriously yet, there is no doubt that this will contribute more and more to a broker's role in the future.

- Project Connect and similar portals – These online portals are where large organisations including National Governments release tenders. This is now the normal way for tenders to be released, they often include several hundred megabytes worth of information, chat rooms for bidders to ask the principals questions and drop-box links to submit various parts of the bid. Whilst this practice is reserved for large infrastructure projects only at this time, the smaller projects are also turning to online portals for retrieving prices from suppliers, and no doubt the day will come where companies only accept submissions via online portal even for small spot shipments. The broker needs to become proficient and 'fluent' with communicating via these portals, and get used to using them.

- Facebook – This online platform that started as a bunch of university students sharing pictures from parties has now become a place where many companies host their home pages, a form of communication that most people use several times a day, and a research tool for finding out which shipping company is carrying what cargo and for whom. Whilst a broker cannot ignore the fact that more and more business is done on Facebook, they also have to be very careful about what information is shared,

considering that much of the information they share is completely public. If a broker is to have a Facebook page as part of their enterprise, they would be wise to tweak their privacy settings very carefully as not to reveal too much information.

- AIS / Marine Tracker sites – Whilst a broker may once upon a time have been able to keep a particular ship's location secret, the evolution of ship tracking tools has meant that once somebody knows the name of the ship they can track where it has been and in many cases where it is going. Sites such as Equasis.org offer free login and divulge a lot of information about ships. Some shipowners even have live webcam footage from the bridgedeck of various ships so charterers can, if they wish, sit and stare at their cargo on the ship's deck for the entirety of the voyage. The availability of information will only become higher in the future, so the broker needs to ensure they stay ahead of the wave, make sure they are better informed than charterers and shipowners, and ensure they do not provide information that contradicts information available online.

Finally, the broker should make best efforts to use online tools to streamline their workflow and reduce cost. For example using DropBox to share files with others instead of via several email messages, using video-conferencing to discuss / share operational details and discuss technical details (for example sharing desktops to sketch where lifting points need to be placed on a particular module to be best suited for lifting). Using Skype to make international calls and WhatsApp to send text messages are examples of cost-saving measures. Once again, the broker's role is to build and maintain relationships with owners and charterers, so they will need to make this more of a focus and try to gain as much efficiency as possible from online tools so more time is available for relationship building activities.

7.2 Strengthening relationships with shipowners and charterers alike

Further to comments in previous section, the rise of online tools, portals and e-commerce becoming the norm in general mean that face-to-face engagements are becoming rarer. It is not uncommon for colleagues sitting across the desk from one another in an office to communicate via Skype or Facebook Messenger instead of actually talking to each other. The importance of taking the time to meet clients and shipowners, attend vessel load / discharge operations and attend networking events will no doubt become much more significant in the future. Whilst previously, people were forced into face-to-face meetings because that was how business was done, it is now possible to work with someone very effectively without ever meeting them, and in some cases not even talking to them on the phone.

Australian cities tend to be very sprawled out, with clients located in different corners of these cities and often in industrial areas or small towns on the outskirts of these cities. If the broker's office is in Central Sydney, they will need to drive for around 2 hours to visit one of their EPCM clients in Newcastle. This means they lose more or less a whole day for one meeting, so of course need to plan other meetings on route to make the trip worthwhile, similar to tramp ship planning its voyage. A broker will need to be more efficient with these activities in the future as parking, fuel, car ownership and time itself become increasingly more costly.

Face to face meetings often involve air travel, and from anywhere in Australia to basically anywhere else involves at least several hours on a plane. Whilst airfares are becoming more affordable, and flight services more frequent, this has also increased the expectation that a broker will attend an important meeting in an overseas location such as Kuala Lumpur, Singapore, Hong Kong or perhaps at the manufacturer's facility in somewhere like Batangas, Dalian, Chon Buri or even as far as Eastern Europe.

Overall the role of the broker is now more than ever a builder and maintainer of strong relationships through doing business face to face. In the future brokers will need to manage their time and costs more efficiently to enable them to 'get out on the road' and see customers and shipowners, no matter how far they have to travel.

7.3 Diversifying

Due to their expertise in this very specific trade, brokers have recently been known to be employed as consultants working on behalf of EPCM's or even infrastructure projects directly. This is a way brokers can flatten out their peaks & troughs in the market. For example, while a lot of projects are in construction phase the broker will be very busy doing their job of fixing and executing shipments. However these projects take several years to plan before construction begins, so in a 'trough' where not many shipments are taking place there may still be significant amounts of planning activity happening behind the scenes. With the trend of large modules being build offshore, the shipping component is very important to the EPCM's and project owners so they are often more than happy to pay considerable sums of money to employ experts to assist with planning, often including the MPP/HLV broker.
This is the key example of how the role of the broker will need to evolve in order to stay competitive in the future.

7.4 Vertically integrating

Collaboration is essential in such a concentrated market as Australia. As discussed in previous sections, trying to survive solely as a competitive broker in this day and age is near impossible. The broker needs to associate themselves with one or more shipowners so they have a strong product to offer, and in the other 'direction' in the value chain may wish to associate themselves with one of more port agency companies. They of course have to be careful not to integrate too heavily in the downward direction (for example land transport, stevedoring, storage, customs clearance) because not only do they find themselves reaching too far outside their capabilities, they also find themselves competing with their customers and suppliers.

Though there is no doubt that the role of the broker will have to expand up and down the value chain in the future in order to continue being valuable to their customers and shipowners alike.

8.0 Conclusion

The role of the MPP/HLV shipbroker has developed from doing deals around a table at a bar to being a master researcher, networker, workflow manager and technical adviser, whilst still needing to do business around a table at a bar efficiently and effectively from time to time. As discussed the broker will need to take on more roles, learn new tasks and provide increasingly better value proposition for their shipowners and charterers. As many members of the older generation leave the industry, it is up to the new generation of brokers to keep this profession and industry alive and continue to develop and be profitable whilst aiding to build the major infrastructure projects of the future in Australia.

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[i] http://www.npr.org/sections/money/2012/05/30/153950742/the-worlds-richest-countries-and-biggest-economies-in-2-graphics