Dissertation for the Young International Freight Forwarder of the Year Award 2013

# The FIFA World Cup 2014 Moves the World



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# List of Abbreviations

ADR	Accord européen relatif au transport international des marchandises							
	Dangereuses par Route (European Agreement Concerning the							
	international Carriage of Dangerous Goods)							
ADSp	Allgemeine Deutsche Spediteursbedingungen (German Freight							
	Forwarders'Standard Terms and Conditions)							
ΑΤΑ	Admission temporaire (preliminary customs declaration)							
ATLAS	Automatisiertes Tarif- und Lokales Zoll-Abwicklungs-System (Automatic							
	Tarif and Local Customs Clearance System)							
BAF	Bunker Adjustment Factor							
BAFA	Bundesamt für Wirtschaft und Ausfuhrkontrolle (Federal Office of							
	Economics and Export Control)							
BL	Bill of Lading							
CBF	Confederacao Brasileira de Futbol							
CNPJ	Cadastro Nacional de Pessoas Juridicas (Brazilian National							
	Registration Number of Legal Entities)							
CONMEBO	LConfederação Sul-Americana de Futebol							
DHL GF	DHL Global Forwarding							
EAD	Export Accompanying Document							
EORI	Economic Operators' Registration and Identification							
ETA	Estimated time of arrival							
FIFA	Fédération Internationale de Football Associtaion							
FRT	Frachttonne / freight ton							
GGVSEB	Gefahrgutverordnung Straße, Eisenbahn und Binnenschifffahrt							
	(Transport of dangerous goods by road, rail and inland waterways)							

- **40' DC** 40 Foot Dry Cube Container
- **40' HC** 40 Foot High Cube Container
- IMDG International Maritime Code for Dangerous Goods
- **INFRAERO** Empresa Brasileira de In Infraestrutura Aeroportuária
- LBA Luftfahrt Bundesamt (German Federal Office of Civil Aviation)
- MSC Mediterranean Shipping Company
- NCM Nomenclatura Comum do MERCOSUL
- **NVOCC** Non-vessel Operating Common Carrier
- **40' OT** 40 Foot Open Top Container
- POD Port of Destination
- POL Port of Loading
- **SDR** Standard Drawing Rights
- **TEU** Twenty Foot Equivalent Unit
- **THC** Terminal Handling Charges
- VIP Very Important Person

#### 1. Introduction

Many profound changes have taken place in Brazil during the first decade of the current century. From a less dynamic economy, with growth rates below the world average, Brazil has joined the group of countries that lead the world economic growth - and will continue together with the other BRIC countries to lead it in the coming years.<sup>1</sup> The economic growth in 2010 was 7.1 % and in 2012 only 0.9 %<sup>2</sup>, the FIFA World Cup 2014 in Brazil will be a great chance to continue and develop the economic raise strongly.

In the End of May 2009 the FIFA published 12 cities in Brazil, where the games will take place. One of them is Curitiba, which I have chosen as delivery location.

As for the upcoming World Cup, the station "Arena de Baixada" must be increased for the growing number of visitors. There are series of adjustments that need to be made, including the expansion of the side tribunes. The seating capacity of the stadium will be increased to 40.000 seats. The stadium will then be ideally suited for the four held World Cup matches.<sup>3</sup>

The DHL GF customer PXL Technology Platform received the order to create a VIP lounge, therefore PXL needs to import from India special paint for the construction. The VIP lounge will be built in the factory located in Stuttgart, Germany. Below I will explain the tasks that I will have to perform to fulfill the customer's needs starting with the import handling to Germany by sea followed by the export handling which will include bulk and general cargo by sea and airfreight to Brazil with a just in time delivery.

<sup>&</sup>lt;sup>1</sup>See (Ministerio da Fazenda 2011)

<sup>&</sup>lt;sup>2</sup>See (Journal 2013)

<sup>&</sup>lt;sup>3</sup>See (Knepper 2013)

# 2. Import of Two 40' Dry Cube Containers with Water Resistant Paint

The company PXL Technology Platform, located in Stuttgart, Germany, is a family business and since more than a decade a good customer of DHL GF. For the frame and the seating of the grandstand the customer needs paint, which he bought from the Asian Paint World Limited in Mumbai, India.

### 2.1 Shipment Details

The customer informed me that the goods will fit into two 40' DC Containers. Each container has a gross weight of 5 tons and the merchandise (paint) is declared as dangerous good.

To start with the organization I need to know the dangerous goods class, the packaging number and the quantity. Each container is loaded with 40 drums, IMO 3, UN 1170, packing group II.

After checking with the responsible contact person for dangerous goods, I can start working on the job. The Incoterm for this shipment is EXW (ex works) Mumbai, that means that the consignee our customer PXL pays the entire freight and holds all risks for this transport.<sup>4</sup> (Appendix a) The total value of the goods is 150,000 Euros.

<sup>&</sup>lt;sup>4</sup>See (Bernstorff 2010)

## 2.2 General Transport Regulations

Prior to shipping I need to check, if the customer has an import license for paint from India issued by the Federal Office of Economics and Export Control (BAFA), which is the German superior federal authority to control imports and exports to and from Germany, or if any special licenses or certificates are needed. Because of the fact that I must handle dangerous goods it is important to get a written order from the customer to avoid any penalties during the transport.

The consignee, here our customer PXL needs to have an EORI number, which is a customs number in order to import the goods. The 7-digits customs number serves as identification for the importer and is necessary for the import customs process performed over the IT system ATLAS.<sup>5</sup>

Different regulations need to be considered when transporting dangerous goods:

- > IMDG-Code for the international transport by sea.
- GGVSEB for the transport by truck, train and barge in Germany

Since we have 80 drums of paint, it is important that the dangerous goods are labeled correctly. Each drum needs a mark with the packing group, the UN-Number and the dangerous goods class.

It is important that the barrels are properly stowed. To prevent mutual damage, the barrels should not have any room to move within the container. Furthermore it must be ensured that temperature requirements are met. An insurance company is not liable for leakage or volume reduction of the coatings.

<sup>&</sup>lt;sup>5</sup>See (Finanzen 2011)

When selecting the main carrier for the business it is important that the company has already conducted earlier shipments on behalf of DHL GF or can exhibit many years of professional handling. I need to check if the insurance company of the main carrier will cover the goods value.

#### 2.3 Mode of Transport

First of all I will inform and ask my colleagues from DHL GF India to contact the shipper and organize the pre-carriage. PXL advised me to arrange a direct service by sea from the POL Nhava Sheva to the POD Hamburg to avoid any damages or delays caused by transshipments. After checking the possibilities with my colleagues I decide to book the containers with the carrier MSC.

DHL GF India provides me the exact shipment details, like the ETA, the vessel name and all other important information. The shipper will provide the goods at the warehouse, as the Incoterm is EXW the shipper is liable for the correct packaging and DHL GF India will handle the loading into the containers.

The container needs to have Placards, on every side, showing the correct dangerous goods label. If the labeling is incorrect, high penalties will be the consequence. (Appendix b)

The pre-carriage will be done by full truck load service. The full truck load service by DHL GF has a lot of advantages, like tracking of the shipments, predefined transit schedules and visibility.<sup>6</sup> For the customer it is possible to monitor that the containers will be picked up in time and delivered on schedule to the terminal. (Appendix c)

<sup>&</sup>lt;sup>6</sup>See (Deutsche Post DHL 2012)

After the vessels departure I will receive all original documents from DHL GF India. The transit time by vessel from Nhava Sheva to Hamburg is 26 days.

Now I can start preparing the customs clearance and furthermore I will continue organizing the on carriage. I have the possibility to transport the containers by road or rail to the consignee's warehouse in Stuttgart. Before I can pick up the containers at the terminal MSC has to release the containers. Therefore I have to send at least one original Master BL to MSC and also need to pay the seafreight and import charges. After finishing this essential process the containers will be released and I will receive a pick up reference and an ATB number, which I will need for the customs clearance from the carrier.

I choose to take the train, which will depart directly from the terminal in Hamburg. This way of transportation is the safest, environment friendliest and cheapest way. The booking must be done on time, because for dangerous goods there are only limited capacities on a train. I have to issue a dangerous goods document for the transport by rail. (Appendix d) My colleagues from DHL GF Stuttgart will organize the transport from the rail station to the consignee's warehouse.

The customer advised me to clear the customs directly in the port of Hamburg. Therefore I need to send the shipment details digitally via ATLAS to the customs. I need to fill in certain details about the consignment, for example the ATB number, the value of the goods, the weight of the cargo. After that the customs IT system checked the plausibility of the order I will receive an ATC number. Then a customs officer can inspect the shipment, if everything is okay the consignment will enter the European Union and the customs clearance is finished. As confirmation the regional Tax Office transmits the tax assessment electronically to the declarant.

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### 2.4 Documentation

My colleagues in India will send me the following documents:

- 3/3 Original NVOCC Bill of Lading + Copies (including the name of the shipper and consignee, vessel, POL and POD, quantity and kind of goods, gross weight, volume, place and date of issuing)
- 2/3 Original Master Bill of Lading (including the name of DHL GF India as shipper and DHL GF Hamburg as consignee and notify, all other details need to be exactly as in the NVOCC BL)
- Certificate of Origin (including all the determination of the identity of the product particulars (name of packages, type and weight) as well as the sender's name and clear indication of the country - Certificates serve as proof of origin<sup>7</sup>
- Commercial Invoice (including the name and address of the shipper/seller and the consignee/buyer, description and quantity of the goods, value and term of delivery)
- Packing List (including information like marks and numbers of the goods, net and gross weight, volume and the name of the shipper)
- Dangerous Goods Certificate (for the sea freight an IMO certificate is necessary, for transport by train a special transportation paper, with the UN-number, packing group, subsidiary risks (if any), technical name of the class, kind and quantity need to be mention). (Appendix e)

Danmar Lines is the NVOCC of DHL GF, without owning own vessels Danmar Lines can act as independent carrier towards the customer. The liability is the same as from a carrier and they can issue negotiable documents like the NVOCC Bill of Lading, which is a document of title.

<sup>&</sup>lt;sup>7</sup>See (Witte 2009)

#### 2.5 Insurance

According to the Hague-Visby Rules the liability of the freight forwarder as a NVOCC in case of loss or damages of the goods is limited. The liability is 2 SDR / kg gross, maximum the value of the goods.

Value of the goods: 150,000 €

Gross weight: 10,000 kg

2 x 1.16987 x 10,000 = 23,397.40 €

150,000 € - 23,397.40 € = 126,602.60 € liability gap

Because of the big liability gap I recommend the customer to buy an extra insurance. To cover the total value of the goods and the freight charges DHL GF can offer an insurance rate of 0.4 %.

[(150,000 + 10,000) + 10 %] x 0.4 % = 640.00 €

Freight costs (10 %) is the sum to be insured with this calculation, as these will be refunded in case of damage or are used to replace the lost goods.

# 2.6 Transport Costs

Pre Carriage	USD	400.00
Handling Charges at Origin	USD	150.00
Ocean Freight	USD	1550.00
IMO ADD	USD	300.00
THC	EUR	220.00
ISPS	EUR	15.00
Release Fee / BL	EUR	30.00
Handling Fee	EUR	50.00
On Carriage*	EUR	563.00
USD to EUR	0.76	1824.00
TOTAL: for 1*40' DC	EUR	2702.00
TOTAL:	EUR	5404.00

\*Incl. toll and fuel fee. Excl. handlings, customs- und multi-Stop / Congestion, 2 hours loading-/unloading time

#### 3. Export of a Football Grandstand

After long negotiations in the beginning of 2010 a contract was signed between PXL and the company Futbol Extremes Ltd., located in Curitiba, Brazil. A complete grandstand design for the VIP area was ordered. The product is expected to arrive in June 2013 in Brazil, so the stadium can be finished on time.

## 3.1 Shipment Details

Since the shipment has enormous measurements it must be divided into several sections. With the help of the DHL experts the customer decided on splitting the consignment into several smaller shipments.

The following parts need to be shipped:

- 1 case: 820x465x280 cm, 65 tons
- 1 case: 600x450x415 cm, 37 tons
- 1 case: 500x200x300 cm, 35 tons
- 3\*40 Open Top Container (in gauge) 19 tons, 16 tons, 15 tons
- ➢ 6\*40 High Cube Containers, 17.5 tons each

The Incoterm 2010 for all shipments is DAP (Deliver at Place) Curitiba.

This means that the seller carries all risks and costs until the delivery at the stadium of Curitiba, and takes the responsibility for the entire transport. (Appendix a) The buyer only has to organize and pay the customs clearance in the import country and the unloading process at the stadium.

This may involve risks for the seller. In case of a delay of the vessel, there could be problems on the import side, which would cause high costs and the previously agreed delivery date could not be adhered. Also the seller has to trust in the buyer that the customs process will be settled on time to avoid any delays and unexpected costs regarding the on carriage.

Our customer PXL confirmed us that the buyer imported many goods in the last years and never had problems with the local customs office; this was the reason why they agreed on this Incoterm.

#### 3.2 General Transport Regulations

Because the goods are shipped within the next months, the customer asked for a rate valid for the next three months. It is common that ocean rates are valid for only one month, but because of the good cooperation with various shipping companies, it is not a problem to get a rate with the required validity for this special shipment. However, since the BAF fluctuates and must be calculated monthly, I offer it a little higher to avoid losses.

It is very essential to send all original documents to Brazil in time. For export to Brazil it is from high importance that the CNPJ number of the consignee is mentioned. Furthermore the commercial invoice needs to be printed and issued by the shipper, with a shipper letterhead, signed in blue ink and with the complete shipper and consignee address. The arrival of the cargo without the correct documents is fraught with risk, because the cargo could be hold back by the Brazilian Customs. Being hold back the chance of gaining the cargo back is very difficult.

Before I can start processing the shipment I have to revert the DAP Check list to DHL GF Brazil. (Appendix f) Only with this form my colleagues can handle the shipment at destination and will help the consignee with the customs clearance process. The consignee needs to sign a Power of Attorney to enable DHL GF Brazil to act on his behalf.

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It is important to inform the shipper about the special standards of wood material. The cases need to have the ISPM 15 status.

ISPM 15 is an international measure that directly addresses the need to treat wooden materials. Its main purpose is to prevent the international transport and spread of diseases and insects that could negatively affect plants or the ecosystems. ISPM 15 affects all wooden packaging material (pallets, crates etc.) except alternative materials, such as paper, plastic or wood panel products (hardboard and plywood).(Appendix g)

Effective immediately, all shipments that contain wooden material in its packaging will be inspected by the Brazilian Government. Cargo with an approved fumigation certificate and stamp on the wood confirming treatment was performed at origin will be released without any problem or delays.<sup>8</sup>

The total value of the entire consignment is 3,300,000 Euros, I advise the seller to buy an additional insurance. After the confirmation of the charges I can begin to organize the transport.

<sup>&</sup>lt;sup>8</sup>See (Rafael Silva 2012)

## 3.3 Export Stuttgart to Curitiba via Airfreight

Since mid-May certain approvals at the stadium must be made by the Brazilian government. Therefore one of the parts needs to arrive earlier than planned. To avoid penalties and to guarantee an on time delivery I need to switch to Airfreight. Unfortunately this was communicated only two weeks before, so that I have to reschedule the mode of transport shortly. The goods need to arrive in ten days at the stadium.

#### 3.3.1 Shipment Details

The shipment is stowed in a box with the following dimensions 500x200x300 cm and a total weight of 35 tons. This box contains a specially built and decorated entrance frame that can only be loaded as a single module. As this frame has a value of 1,100,000 Euros, I advise the sender to stock up insurance. As before mentioned the Incoterm will be DAP Stadium Curitiba.

### 3.3.2 General Transport Regulations

First I need to check as air freight forwarder and a regulated agent if the shipper has a written Declaration of Security as a known consignor by the LBA<sup>9</sup>, which is not older than two years.

The Brazilian main airports are operated by the government owned company INFRAERO. When the aircraft arrives, the airline delivers the goods to INFRAERO, who will keep the goods, until the consignee's broker clears it. The trucking company will pick up the goods from INFRAERO and deliver it straight to the customer's

<sup>&</sup>lt;sup>9</sup>See (LBA 2013)

facility. For any special handling requirements, the agent in Brazil needs to inform the airline before the cargo arrives, for them to inform INFRAERO.

#### **3.3.3 Mode of Transport**

Since the weight of the shipment is 35 tons, I have to organize the pre carriage using a special transport vehicle. The crate needs to be loaded with a crane on the truck. (Appendix h) The approval of transport in Germany will take about five days; this time must be considered when planning the pre carriage. The company Stange Transport GmbH, which is specialized in heavy-lift cargo, will handle the transport of the case from the factory of PXL to the airport in Stuttgart. Due to the dimensions the case will be transported on an open truck. The shipper is responsible for loading and securing the cargo on the truck.

The case cannot be shipped in a standard cargo plane, as the weight and the dimensions are too high. I work together with the DHL aircraft charter department, which have a lot of experiences and we decided to charter the Antonov An22. This aircraft is the safest and in comparison with the Iljuschin II-76 the environment-friendliest plane, which can carry a crate with the given dimensions.

Our customer is a known consignor, so we can load the crate directly into the airplane, without having to go through any screening tests, which are very expensive and time intensive. For this big consignment the screening test would have been a "sniffer test" performed by a customs dog team, they would have charged 350 Euros per hour.

A load master needs to be available at the airport, which decides how to load the case into the aircraft. The truck can be positioned at the nose of the aircraft so that the case can be loaded easily. (Appendix i)

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The non-stop flight to the Aero Porte International Afonso Pena in Curitiba takes about 12 hours. The on carriage of the case will be organized by DHL GF Brazil; the goods will be transported by truck to the stadium. Because of the bad infrastructure in Brazil the transport is very difficult and expensive. As the maximum weight for road transport of a 20' container is 23 tons and our case has the same dimensions but a weight of 35 tons, again a special truck needs to be taken into consideration. There are no other alternatives, even though the distance from the airport to the stadium is only 17 km. The total transit time form Stuttgart to Curitiba takes 8 days.

#### 3.3.4 Documentation

I will send the following documents to my colleagues in Brazil:

- House Air Waybill (including the name of the shipper and consignee, Airport of Departure and Airport of Destination, quantity and kind of goods, gross weight, volume, place and date of issuing). (Appendix j)
- Master Air Waybill (including the name of DHL GF Hamburg as shipper and DHL GF Brazil as consignee and notify, all other details need to be exactly as in the House Air Waybill)
- Commercial Invoice
- Packing List
- Pictures of the case
- Import License from the buyer
- Certificate of Origin
- Fumigation Certificate

#### 3.3.5 Insurance

The insurance pays for the cargo if it gets lost or damaged, caused by for example force majeure, theft, strike or rust. However, the extent of liability is relatively low. The liability limits in air freight are subject to the Montreal Convention. This covers the liability to 19 SDR/kg.

Value of the goods: 1,100,000 €

Gross weight: 35,000 kg

35,000 kg x 19 SDR x 1.15 € = 764,750 €

1,100,000 € - 764,750 € = 335,250 € liability gap

Besides that a transport insurance is always useful, in this case it also covers the gap between the legal liability and the actual value of goods, which is 335,250 Euros. To cover the total value of the goods and the freight charges, which are very high in this case, DHL can offer an insurance rate of 0.325 %.

[(1,100,000 + 500,000) + 10 %] x 0.325 % = 5720 €

It is important to note that the shipping insurance does not cover damage caused by inadequate packaging and due to natural properties of the material. Also manufacturing, production costs or any costs of moulds or other specially fabricated tools and machineries will not be covered. It is very import to inform the shipper about these facts to avoid misunderstandings.

## 3.3.6 Transport Costs

Pre carriage *	EUR	3125.00
Aifreight **	USD	700,000.00
Cargo Handling	USD	14,000.00
x-ray / security	EUR	750.00
Breakbulk	USD	64.00
DDU Fee	USD	100.00
Airline Fee	USD	22.00
Import Customs Clearance	USD	336.34
(applicable for standard		
process, per entry, up to 5		
additions)		
Import License	USD	100.40
Delivery (city limits)	USD	9,500.00
Ad Valorem (mandatory truck	EUR	275.00
insurance)		
0.25% of goods value		
USD to EUR	0.76	550,333.28
TOTAL:	EUR	554,483.28

\*Excl. police accompaniment and traffic control measures (processing fee)

\*\*Excl. warehouse costs, special equipment, de-icing

Important: This is considering a crane loading at CWB airport and unloading the cargo at the customer's warehouse without positioning the cargo. (free time is 6 hours between loading and unloading)

#### 3.4 Export Stuttgart to Curitiba via Sea freight

The rest of the shipment needs to be shipped by sea freight to Curitiba. The grandstand has to be finished by the end of August, so we must start on time shipping the missing parts. It is planned that the first football games take place in September. Any delay will cause enormous costs through profit losses to the stadium.

#### 3.4.1 Shipment Details

The remaining parts will be shipped in two oversized boxes and nine containers, three 40' OT containers and six 40' HC containers. The two boxes need to be shipped first.

#### 3.4.2 Transport of Oversized and Overweight Project Cargo

As the Tribune is unique and very difficult to handle, we have to ship two complete parts in oversized boxes as bulk cargo.

The dimensions of the boxes are:

1 case: 820 x 465 x 280 cm, 65 tons. (Appendix k)

1 case: 600 x 450 x 415 cm, 37 tons. (Appendix I)

The width and weight of the shipment represents a special challenge. The width of the case makes the pre carriage very expensive and difficult. The boxes cannot be shipped in a container, as the normal cranes in the harbor cannot lift this heavy weight, the maximum weight for a flat container is 55 tons.

The two boxes must be transported on a special truck from Stuttgart to the Port of Hamburg. A shipment by barge or rail is not possible because of the dimensions. The transport to the port of Hamburg is the cheapest alternative, because shipments via Rotterdam are more expensive due to higher handling costs in the Netherlands.

Before we start to organize the transport we have to check if the sender has the necessary cranes to load the crates onto a special truck. Also we must determine first whether the sender can stow and secure the boxes correctly.

Since the width of the boxes exceeds the maximum width of the Highway Code, which is 2.55 m<sup>10</sup> and the gross vehicle weight of 40 tons will be exceeded too, a permit needs to be granted by the German authorities. <sup>11</sup> This can take up to two weeks. Before the boxes are loaded, the route needs to be analyzed in order to offer a quick and safe possibility of bringing the boxes to the POL Hamburg. After I received the confirmation of DHL GF Brazil, whether the on carriage can be realized, I can proceed with the job and send the booking confirmation to my customer.

It is important to tell the consignor that the boxes need to be packed save to avoid damages during the whole transport. The boxes must have adequate and clearly marked lifting and lashing points for the sea transport.

<sup>&</sup>lt;sup>10</sup>See (Das Verkehrslexikon 2012)

<sup>&</sup>lt;sup>11</sup> See (Hans Brandenburg 2010)

#### 3.4.3 Mode of Transport

After I received all approvals by the authorities in Germany and Brazil, I can start with the handling of the transport. For the pre carriage, I choose the company Stange Transport GmbH. The two boxes will be loaded on two consecutive days, so that the same vessel departure can be used for shipping. The distance from Stuttgart to Hamburg is about 700 km. Because of the width the boxes can only be transported at night in order to keep the costs for closures of the highways and access roads as low as possible. Also the police have to accompany the trucks on certain routes. To reach the terminal Unikai 48 in Hamburg in time the boxes will be loaded eight days before closing.

After I compared different offers from various carriers, I decided to load the two boxes on a conventional general cargo vessel with the carrier Grimaldi, because their terminal has the necessary cranes that can lift such heavy load. I also choose this carrier, because he is specialized and familiar with bulk cargo to South America, I can be sure that the goods will be shipped safely in one run without transshipments and on time to Paranagua. (Appendix m)

To ship out the boxes the customs clearance needs to be done. The first step of the declaration will handle the customer by creating the EAD and obtaining an associated reference from the customs, which is called MRN number. This MRN number will then be registered by an employee of DHL GF Hamburg via ATLAS to ship out the cases to Paranagua, Brazil. A Z-Number will be created; first the shipment will receive a not released status. Once the boxes are delivered to the terminal and everything is correct, the status will change to a released status and the boxes can be loaded onto the vessel and shipped out of the European Union.

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The boxes will be shipped from the POL Hamburg to the POD Paranagua. The transit time will be 28 days. (Appendix n) The goods will be unloaded from the conventional vessel in Paranagua. The unloading process and the on carriage will be organized by DHL GF Brazil in accordance with me. The boxes can be transported within one day by heavy lift truck to the receiving address.

## 3.4.4 Documents

I will send the following documents to my colleagues to Brazil:

- 3/3 Original NVOCC Bill of Lading plus 5 Copies (including the name of the shipper and consignee, vessel, POL and POD, quantity and kind of goods, gross weight, volume, place and date of issuing). (Appendix o)
- Master Bill of Lading (including the name of DHL GF Hamburg as shipper and DHL GF Brazil as consignee and notify, all other details need to be exactly as in the NVOCC BL)
- Commercial invoice
- Packing List
- Import license from the buyer
- Certificate of Origin
- Fumigation Certificate

## 3.4.5 Insurance

The liability limit for 65 tons according to the Hague-Visby Rules is 2 SDR/kg<sup>12</sup>, in our case this would be:

2 x 1,16987 x 65,000 kg = 152,083.10 €

Value of the goods: 800,000 € Value of the goods: 600,000 €

Gross weight: 65,000 kg Gross weight: 37,000 kg

Since the liability is based on the weight of the consignment and the values are relatively low, the full value of goods is covered by the legal liability. Since the liability does not cover force majeure or general average, a transit insurance is recommended.

The same obtains for a weight of 37 tons. Here, the statutory limit of liability is about 85,000 Euros.

The cost of insurance recites at a value of 1,400,000 Euros is:

[(1,400,000 + 38,000) + 10 %] x 0.425 % = 6,107.25 €

<sup>&</sup>lt;sup>12</sup> See (Gesamtverband der Deutschen Versicherungswirtschaft e.V. (GDV) 2013)

## 3.4.6 Transport Costs

1 case 820x465x280 cm, 65 tons

Pre-carriage*	EUR	6625.00
THC	EUR	3381.00
Ocean Freight	EUR	10,365.00
BAF (EUR 24.00 / frt)**	EUR	2,562.34
Doc Fee / BL	EUR	15.00
Terminal / Port Charges	USD	4840.00
Local Charges Brazil	USD	2597.00
On-Carriage	USD	13,000.00
USD to EUR	0.76	15,532.12
TOTAL:	EUR	38,480.46

1 case 600x450x415 cm, 37 tons

Pre-carriage*	EUR	6625.00
THC	EUR	1925.00
Ocean Freight	EUR	10,045.00
BAF (EUR 24.00 / frt)**	EUR	2689.20
Terminal / Port Charges	USD	1650.00
Local Charges Brazil	USD	5285.00
On-Carriage	USD	13,000.00
USD to EUR	0.76	15,150.60
TOTAL:	EUR	36,434.80

\*Excl. police accompaniment, traffic control measures (processing fee)

\*\*FRT: used for charging freight cost, compare the weight to the volume – Chargeable is the higher amount

8.2 m x 4.65 m x 2.8 m = 106.764 cbm compared to 65 tons

6 m x 4.5 m x 4.15 m= 112.05 cbm compared to 37 tons

#### 3.5 Transport of Containerized Goods

The rest of the grandstand will be loaded into nine containers. Six boxes with the dimensions of 500x200x260 cm containing larger parts for the grandstand will be loaded into three 40' OT containers. The rest will be stowed at the customer warehouse in six 40'HC containers.

#### 3.5.1 Mode of Transport

During the organization of the shipment I must decide whether to organize the transport in carrier haulage or merchant haulage. The pre carriage by merchant haulage, which is organized by the freight forwarder, is more expensive than the carrier haulage. This is caused by the additional pick-up costs for the empty container in Stuttgart, as well as the extra packaging costs at the Container Freight Station, were the six boxes would be stoved. I choose the containers to be loaded at the shipper's warehouse and from there on to be transported by carrier haulage to the POL Bremerhaven.

That implies that the carrier will handle the provision and the pre carriage. The transport is done by combined overland transport (road and rail) to the POL. Here I have to make sure, that the customer is able to load 40' OT containers at his premises.

Since the shipper can only load one container at once, three containers will be delivered per day in a two hour sequence. For loading and securing the goods in the containers the vendor takes the responsibility. Big advantages of combined transports are low costs. Since these transports take place over a long distances charges like toll costs, fuel costs and personnel cost can be saved. Another benefit is the acceleration due to the possibility of a German train to move with about 100 up to

23

130 km/h - compared to a truck that is only allowed to drive 80 km/h. It certainly is better for the environment, because a train can pull up to 150 wagons with approximately 40 tons each in one run from Stuttgart directly to Bremerhaven. The goods are very safe during their journey with a train, because the known problems from road transportation e.g. traffic jams, crashes and icy roads are not relevant. The transport from Stuttgart to Bremerhaven takes place overnight. The container will be transferred directly from the train station to the terminal.

After the declaration and the customs clearance with the corresponding BHT-Reference, the containers can be loaded on the vessel. The transit time from Bremerhaven to Paranagua is 18 days; it is a direct voyage without transshipments. This is of high importance since the products have a high value, and the possibility of damage can be minimized this way. After departing the necessary documents will be issued and sent to DHL GF Brazil. The documents should not be sent later than five days after the vessels departure. The shipment information should not be sent later than three days after the vessels departure; this procedure is called LOT and is done digitally in our transport management system. It is extremely important to avoid missing information at the destination, by not inputting the date in SISCARGA Customs on time which would lead to charge penalties and problems with the Brazilian authorities. It is very important that the weight of the cargo is correct because this will be controlled by the Brazilian customs when the containers arrive. If they discover any weight discrepancies, the broker cannot start with the import clearance which will bring along extra costs e.g. demurrage and detention. DHL GF Brazil will organize the on carriage by truck to the stadium.

## 3.5.2 Documentation

I will send the following documents to my colleagues to Brazil:

- > 3/3 Original NVOCC Bill of Lading plus Copies
- > 2/3 Original Master Bill of Lading plus Copies
- Original Commercial Invoice
- Packing List
- > Manifest
- Import license from the buyer
- Certificate of origin
- Fumigation Certificate

## 3.5.3 Insurance

The insurance for this shipment contains the same procedure as for the previous one. Since this is more or less a standard transport, the insurance can be covered by charging 0.3 %

# 3.5.4 Transport Costs

Pre-Carriage 40' HC	EUR	615.00
Pre-Carriage 40' OT in gauge	EUR	1050.00
THC	EUR	220.00
ISPS	EUR	15.00
Sea freight 40 HC	EUR	800.00
Sea freight 40 OT in gauge	EUR	2,500.00
BAF	EUR	972.00
ISPS	USD	30.00
THC	USD	400.00
Handling Charges (SISCARGA, BL	USD	250.00
fee etc.)		
Drop Off	USD	40.00
On-Carriage	USD	500.00
USD to EUR	0.76	927.20
Total one 40' HC		3,549.20
Total one 40' OT		5,249.20
TOTAL:	EUR	37,042.80

#### 4. Conclusion

Working on this dissertation was a great experience for me, because I got in touch with so many people I don't have to work with during my daily activities. The dissertation covers nearly all forwarding activities starting with an export and ending with an import. Different goods were transported, from smaller shipments over dangerous goods to bulk cargo and this with different modes of transport.

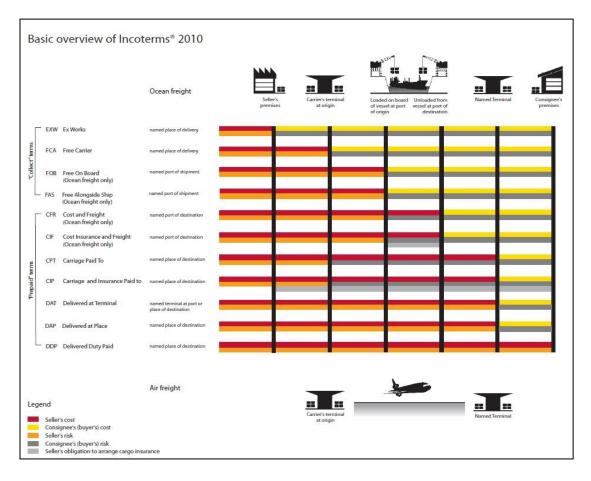
I am very thankful for the help that I received during my investigations from all the respective departments from all around the world. This makes clear how close departments in a global scale company like DHL GF have to work together to offer and provide the best service to cover the customers' needs and to bind the customer to the company. Considering the rapid growth of world economy in the last years globally operating companies have to focus on implementing a good border crossing work flow and aligning the communication and the procedures between the different involved parties, meaning not only the DHL GF offices but also the customers. The truth is that I choose Brazil as receiving country, because despite the fact of being the fastest growing economy nowadays, the import process still is very bureaucratic and therefore time consuming and complicated. That is the reason why the information flow between the involved offices is from such high importance.

I am very happy to work in the logistic sector and also being part of the link connecting the globalized world. I am highly curious about the future of logistics and proud to be able to shape the forwarding business.

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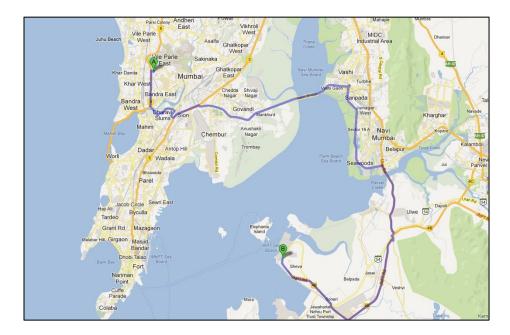
# 5. Appendix

## Appendix a: Incoterm 2010



Appendix b: Placard for dangerous goods class 3 (flammable liquid)





Appendix c: Route from Mumbai to Nhava Sheva by truck (50 km)

Appendix d: Transportation paper for dangerous goods transported by rail

Definde	munder anier neel										_	
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Beförderun	ng nach Absatz 1.1.4.2.1	•									GLORAL EL	RWARDING
Absender									Empfänger		OLODAL TC	NVANDING
	al Forwarding Gmb	<u>ц</u>	7						PXL Technol			
	ssung Hamburg								Ebert-Foss-F			
Liebigstr									Ebenti 0331	ang 25		
22113 Ha									71033 Stuttg	art		
	-											
Tabelle ADR 3.2 (1)	A UN-Stoffliste sind die Spalten mit I (2)	Nummern versehen. Diese Numm (5)	ern spiegeln (4)	sich oben in den Angab (15)	en vom Befoe (6)	rderungspapier wieder. Sie müssen nur die Eintragungen von der Stoffliste i	n die jeweilige Spalte	vom Befoerderungsj 7(15)	papier übertragen. "(15)	(15)	(15)	
(1)	127	Muster	(4)	Tunnelbe-	(0)				(10)		(15)	5
UN Nr.	Stoffname	Gefahrzettel u. (Nebengefahr)	VG	schränkungs- code	sv	Anzahl u. Beschreibung der Versandstücke	BK0 KG/LTR	BK1 KG/LTR	BK2 KG/LTR	BK3 KG/LTR	BK4 KG/LTR unbegrenzt	Gesamtwert
UN 1263	Farbe	3	81	(D/E)	163,640E	20 Steel Drums ( 1A1) X 200 Ltr., Nummer zur Kennzeichnung der Gefahr 30, wird für den Schienenverkehr benötigt	0,000	0,000	0,000	4000,000	0,0	
UN			2	(xxxxxx)	5		0,000	0,000	0,000	0,000	0,0	
UN	0.			(xxxxxx)			0,000	0,000	0,000	0,000	0,0	8
UN	0			(xxxxxx)			0,000	0,000	0,000	0,000	0,0	
UN				(XXXXXX)			0,000	0.000	0.000	0.000	0,0	
	Je Beförderungs	ategorie				Gesamtbeförderung Punktwert	0,000	0,000	0,000	4000,000	0,000	4000
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ja X nein						AU SGE STEL	LT DURCH AB	TEILUNG:	Import			
	15.04.20	13										
Datum Unterschrift Fahrzeugführer						-					Version 2009	

# Appendix e: IMO DANGEROUS GOODS DECLARATION (necessary for transport by

sea)

BEFÖRDERUNG SDOKUMENT FÜR GEFÄHRLICHE GÜTER nach \$8 GGVSee (IMO-ERKLÄRUNG)										
TRANSPORT DOCUMENT FOR DANGEROUS GOODS (IMO-DANGEROUS GOODS DECLARATION)										
Dieses Formular entspricht SOLAS 74, Kapitel VII Regel 4; MARPOL 73/78, Anlage III, Regel 4 und dem IMDG-Code, Kapitel 5.4 This form meets the requirements of SOLAS 74, chapter VII regulation 4; MARPOL 73/78, Annex III, Regulation 4 and the IMDG-Code, Chapter 5.4 Versender (Name & Anachtt) – Skiper (Name & Address)										
Asian Pa	int World Ltd.	& Address)			Buchun	genummer(n) – Refe	rence number(s)	Seite 1 v	on 1	
Blue Goa 405 555										
India										
Emplanger - PXL Tech	<sup>Consignee</sup> hnologies GmbH				Beförde	rer – Carrier				
Ebert For 70333 St	ss Ring 23 uttraart				MSC	Germany Gm	юΗ			
Germany										
	FAHRZEUG-PACKZERTIFIKAT	TF				er-/Fahrzeug-Nr.:				
ERKLÄRUNG			dec and de Dadauter		Name/F	er-Mehicle-No.: unktion, Unternehm tatus, companyforga				
gem, den Bes DECLARATIK	dimmungen nach 5.4.2.1 durchget DN	ührt wurde								
accordance w	that the packing of the goods into t its the provisions of 5.4.2.1			ned out in	Ort und Place a	nd date				
AUSFOLLEN TO BE COMP	FÜR SENDUNGEN IN CONTAINE LETED FOR SHIPMENTS IN CO	ERN ODER F	AHRZEUGEN DR VEHICLES			hift für den Packer re on behalf of packe	r			
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					l					
	Port of discharge									
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	-			IMO-CI	899	group	Marks & Nos, if applicable, identification or registration number(s) of the Unit			
UN	Paint			3				40 Steel		
1263									Drums (1A1) X200 ltr.	
Gross quantit	(Volumen/Masse) y (volume/mass) /olumen/Masse Net.quantity/volur	ne/mass	Merkblatt-Nr. für Unfall-Maßnahmen EmS No.	Flammpuni	haffan i Properties Güter angel efert sis / Goods delivered as: unit / Flashpoint ** POLLUTANT = Btbckgut/Breekbulk cergo					
Netto Explosi	vetoffmasse *** - Net explosive ma	nis ***		Control- an	und Notfaltemperatur ** X Ledungseinheiten (Unit Loeds) Unitzed					
4000 KG	Netto, 5000 KG Brutto		F-E, S-E	kann ei	C.c.) ein Umweltgefährdender Stoff					
				sein	Art der Einheit (Container)					
					X geschlossen / closed					
*Market of					Al 1 *	en Namen autore a	1 I FEP	Zutreffendes anizeuzen / inse (Diese Spate kann bis auf die werden; in diesem Fail ist die : einzusetzen.)	n "r in appropriate box Überschriftfreigelassen subeffende Beschreibung	
UNGEREINIC	er Herstellemannen allein sind nicht IT* oder "RÜCKSTÄNDE – ZULET rforderlich; <sup></sup> Nur bei Stoffen der sild precede the name; (") "EMPTY	ZT ENTHAL	TEN' hinzufügen; (3) "B	EGRENZTE	MENGE" h	inzufügen. ** Falls n	ach Kapitel 5.4	(This column may be left empty which case insert appropriate	ly spert from the heading, in description.)	
QUANTITY's	uid precede the name; (,) "EMPTY hould be added. ** When required	in chapter 5	4 of the IMDG-Code; **	Class 1 only	str should fi	be added; (3) "LIMI"	ED			
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voliständig un nationalen Vo	e ich, dass der Inhalt dieser Sendu d genau bezeichnet ist. Die Güter rachfiten Kassifiziert, verpackt, be	sind nach de schriftet und	n geitenden internations gekennzeichnet/piekati	den und	-	eler, Disponer 3 Hamburg	nt, DHL Glo	bal Forwarding, Lie	ebigstr.46,	
DECLARATIC					Ort und Place a					
Proper Shippi in all respects	re that the contents of this consigning Name, and are classified, pack in proper condition for transport e	aged, marked	d and labelled/placarded	i, and are		burg, 15.04.20	113			
national gove	in proper contation for transport a mmental regulations.					hift für den Versend re on behalf of shipp				
						and the second second second	-			
									Stand: 1/2008	

Appendix f: DAP List, to get Green Light from the Brazilian office to ship out the goods

GLOBAL FORWARDING	
	Shipper - Address considered for
Shipper	pick-up
Company name	ριεκ-αρ
Address	-
City + ZIP code	
Country	
Contact Person	-
Telephone number	-
e-mail	
	- Chinana Addana annidaead faa
Consignee	Shipper - Address considered for Delivery
Company name	
Address	
City + ZIP code	_
Country	
Contact Person	
Telephone number	
e-mail	-
Scope of Service required to be que	oted by BR:
Description	"Yes" or "No" Anwser required:
Pick up at Shipper in Brasil	
Export Clearance	
Export Governament fees (Infraero warehousing or	
Marinha Mercante I.E.)	
Export Carriers fee (THC or MZC I.E)	_
DHL Local origin fees (AWA or BL Fee I.E)	
ATA or PTP rates	
Import Clearance	_
Export Governament fees (Infraero warehousing or	
Marinha Mercante I.E.)	
Import Carriers fee (Delivery or THC I.E)	_
DHL Local destination fees (Delivery fee or BL Fee I.E)	_
Truck delivery to CNEE	

## Appendix g: ISPM 15 sign

#### 5.1.6 Phytosanitary requirements

Many countries have introduced quarantine regulations to protect local forests against imported wood pests. To avoid the evolution of a wide variety of different import regulations, the International Plant Protection Convention (IPPC) issued the ISPM 15 (International Standards for Phytosanitary Measures) "Guidelines for Regulating Wood Packaging Material in International Trade".

The ISPM 15 applies to solid wood in thicknesses  $\geq$  6 mm.

ISPM 15 requires the following marking to be applied to two opposite sides of the packaging:

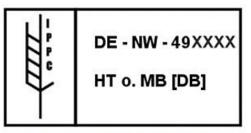


Figure 31: Example of ISPM 15 markings

Description of the markings:

- IPPC symbol
- Country code as per ISO 3166-1, e.g. DE for Germany
- Region code, e.g.. NW for North Rhine-Westphalia
- Registration number: unique number starting with 49 (except Berlin)
- Treatment method, e.g. HT (heat treatment), MB (methyl bromide), generally DB (debarked)

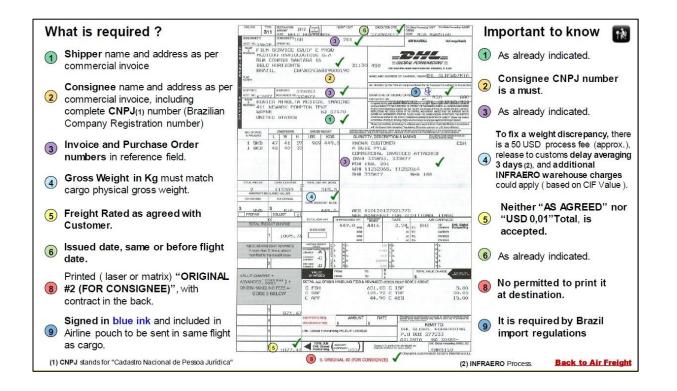
#### Appendix h: Loading process of a heavy case



Appendix i: Antonov An22 (loading process)



Appendix j: Important facts on how to issue a AWB for a shipment to Brazil



# Appendix k: Case I



Appendix I: Case II



Appendix m: Route from Stuttgart to Curitiba via Bremerhaven and Paranagua

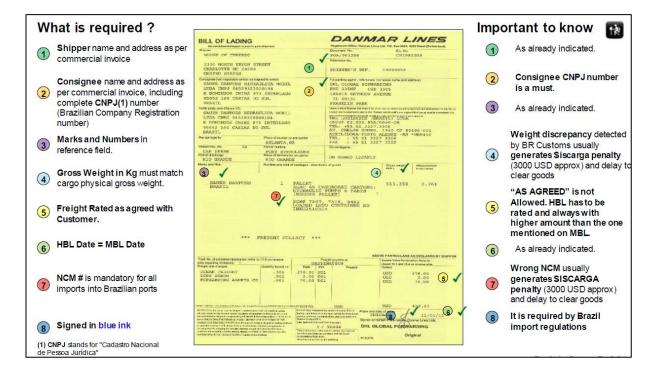


## Appendix n: Sailing schedule

FCL/FCL - Full Container																																	
GERMANY	Carrier:			MSC Germany							Transit-time				18 DAYS												POL: BRV						
Shipper's booking		x																															
latest green light request			x																														
Pick-up				x	x	х	х	х	x	x																							
ENS Closing											x																						
Closing Container Terminal												x	х																				
Vessel departure														0	x	x	x	x	x	x	х	x	x	х	x	x	х	x	х	x	x		
Vessel Arrival Parangua																															x		
Customs Clearance																															x		
On-carriage																																х	x
Arrival Consignee																																x	x

Appendix o: Important facts on how to issue a Danmar Lines BL for a shipment to

Brazil



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