YOUNG INTERNATIONAL

FREIGHT FORWARDER OF THE

Agents of Sustainable Development
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I am also grateful to Jonathan Burrell (General Manager of C. Steinweg Bridge) for his collaboration throughout this journey. Jonathan was behind the logistical operations discussed in the import section of this dissertation and had provided me with his insight and expertise into the extensive procedures undertaken throughout this movement. I recognize his willingness to help since the project’s inception, and for the time and effort he had sacrificed without hesitation.

My thanks are extended to Kester Vickery (co-founder of Conservation Solutions) and Martin Rickelton (Regional Operations Manager at African Parks) for granting me access to and trust with confidential and sensitive information regarding the translocation process and for their honourable contributions to the conservation of endangered species.

My sincerest gratitude to Charles Dey (International Supply Chain and Logistics Management Consultant) for his assistance and mentorship throughout this journey. The guidance he provided played an instrumental role in the depth and professionalism of this dissertation. His passion is contagious, and his expertise is boundless.
Introduction

This submission describes a battle and an adventure.

There are people determined to destroy the living heritage on the pale blue dot on the outer edge of the Milky Way we call home. These people are at war with courageous and unwavering heroes who are equally determined that our home will live and thrive. This submission describes but one small battle in a never-ending conflict.

At the same time, humans are fired up with imagination and determination to do things better by exploring new ways -- these motivators have taken them into a remote jungle to bring home the means of production.

It is a great privilege to share the stories of this battle and this adventure.
Export to Malawi: Black Rhino

“It’s surely our responsibility to do everything within our power to create a planet that provides a home not just for us, but for all life on Earth” – Sir David Attenborough.

With the human population expanding at an exponential rate, it is inevitable that production and living space must expand to keep up with the ever-increasing needs of people. An effect on wildlife habitats and their inhabitants is almost unavoidable. Through human growth and production pollution, many species of flora and fauna have seen a drastic decline in their populations, causing nature to slowly fall out of balance due to our carelessness. However, there are some species whose populations are directly under attack, as they provide a commodity in demand. This is evident by the state of war that surrounds the rhino.

Rhino are sought after for their horn. In some cultures, it is traded as a product used in traditional medicine to cure everything from a hangover to cancer and is also shown off as a symbol of wealth and power. The trade can be particularly lucrative and can reach prices of up to $60 000 per kilogram on the black market, attracting severe poaching to Southern Africa, where rhinos are most abundant. The population of Black Rhino has seen a drastic decrease of 96% between 1970 and 1993, with their numbers dropping from 65 000 to only 2 300 living in the wild (Emslie & Brooks, 1999).

Since 1996, intense anti-poaching efforts and strategic translocations to safer areas have allowed the species to slowly recover and increase in population size. Black Rhino numbers at a continental level have more than doubled reaching an estimated 5 495 by end 2017 and 5 630 by end 2018 (Emslie et al. 2019).
The *Rhino's Return to Malawi* project was one of the strategic translocations that have helped to increase the Black Rhino population. Through a cooperative effort involving international governments, conservational specialists and wildlife freight forwarders, Black Rhinos were moved from South Africa to a protected habitat in Malawi. The roles played by all parties in carrying out this translocation will be outlined and discussed in this dissertation.

Anti-poaching is a war, and in times of war, it is very important to maintain confidentiality. In this case, whilst the processes and procedures are analyzed, many details have been redacted in the interest of protecting this highly endangered species.
1) Parties Involved

Founded in 2000, **African Parks (APN)** is a non-profit conservation organisation with the mission to save wildlife, protect their habitats and develop the communities that surround them. This is achieved through securing vast landscapes of protected area and providing effective park operations management. They collaborate with government authorities and local communities to ensure a reduction in poaching and human-wildlife conflict.

African Parks was the organiser of the Rhinos Return to Malawi project. The organisation facilitated a custodianship agreement between the Governments of South Africa and Malawi for the relocation of South African Black Rhinos to Liwonde National Park in Malawi. This agreement aimed to reestablish the Malawian Black Rhino population and to start a new breeding herd. This organization also provided the considerable funding required for the project.

**Conservation Solutions** specialize in large scale wildlife translocations across international boundaries. The team was contracted by APN to provide capturing, crating, transportation, and veterinary assistance throughout this translocation.

**Pride of Africa Wildlife Solutions (PAWS)** are live animal forwarding and clearing specialists. They were nominated by African Parks to take responsibility for the logistics coordination, documentation, and compliance with all statutory bodies in South Africa.
2) Statutory clearance and documentation

There were several statutory bodies involved in the authorization of the international movement of the Black Rhino.

Veterinary Authorization

Veterinary Authorization was effected through the pre-inspection of the export premises to ensure that there were no transmissible animal diseases, such as African Horse Sickness or Bovine Pleuropneumonia.

International Veterinary Certificate for Wildlife for Export to the Republic of Malawi from the Republic of South Africa

This document reflected the species list, destination and modes of transport used throughout. It was authorized and certified by KwaZulu-Natal Wildlife (Ezemvelo). (Appendix H)

Convention of International Trade in Endangered Species (CITES)

CITES in South Africa operates under the Department of Environmental Affairs - National CITES Management Authority, who issue permits in respect of the export of all endangered species. On behalf of APN, the CITES permit application was made by PAWS after the capture and verification of the chip numbers of the rhinos and Ezemvelo issued the CITES Permit (Appendix B).

SARS Customs and Excise (Customs)

Once veterinary and CITES authorization had been obtained, the shipment was declared to Customs by PAWS on the SAD 500 Customs Declaration Form via EDI
(Appendix C). The goods were classified under tariff heading 0106.19 (6). Customs authorization was granted via SARS: Customs EDI Notification showing declaration status release and status information released (Appendix D).

**Implementation of contingency plans**

One of the rhino cows was found to be pregnant and could not be translocated, therefore the SAD 500 and CITES certificates had to be resubmitted with the relevant amendments excluding this rhino. This was authorized by the Customs authorities.

(Appendix E)

**IATA Live Animal Regulations (IATA – LAR)**

The purpose of the IATA – LAR is to ensure that certain standards are maintained when transporting live animals to protect their health and safety, as well as to combat illegal trade in wildlife and wildlife products (IATA, 2019). The regulations outline certain criteria that must be met regarding the following:

- Shipper and carrier responsibilities and training
- Government regulations
- Carrier regulations
- Reservations and advance arrangements
- Animal behavior
- Documentation
- Container requirements
- Listing, description, and sizes of species
- Marking and Labeling
- Handling procedure
- World Organization for Animal Health (OIE) recommendations and compliance
- CITES

The statutory clearance, documentation applications issued, and precautions made in this movement ensured that the IATA - LAR were followed.
3) Description of the Operation

Tracking

Females around the age of 4 and males around the age of 7 were selected as this is when they begin to peak in physical condition, so survivability would be high. This is also when they are in their sexual development, which benefits the conservation effort as the rhinos would be searching for mating partners (Meyer, 2012).

Conservation Solutions scanned though iMfolozi Game Reserve via helicopter to track down the Black Rhinos (Appendix G1). When spotted, they were darted and tranquilized for inspection (Appendix G2). All rhinos on this Game Reserve had been previously microchipped, and these microchips were scanned to ensure each animals’ identity. The rhinos which were compatible and healthy were chosen for the movement. (Appendix G3)

Move to boma

Trucks moved to the position of the darted animals. Whilst tranquilized, each rhino was loaded onto flatbed trailers by the crane attachments of the trucks. Animals become stressed during transportation from changing environments, isolation, and cramped spaces, and can result in health complications. To prevent this, the rhinos were moved into bomas (shaded shelters) to accustom them to a smaller environment and to ensure that they did not carry diseases. They were kept in quarantine for six weeks. (Appendix G4)
Implementation of contingency plans

This is where it was discovered that one of the cows was pregnant and would therefore not be translocated.

Packaging

Conservation Solutions had designed and built specialized crating used to contain the rhinos during transportation. Openings allowed air to pass through the crates for sufficient oxygen and provided vets and caretakers a viewing point for checkups. The crate dimensions ensured that the rhinos didn’t have room to lie down, as this would result in prolonged circulation blockage which would damage their bodies.

Road Transport

To negate the need for cranes to be present at the boma and at the airport, trucks with crane attachments were employed to carry the animals. The rhinos were lightly sedated, blindfolded and had earplugs fitted to be loaded into the specialized crating (Appendix G5) and crates were loaded onto flatbed trailers (Appendix G6). Due to the unpredictable behavior and the sheer weight of the animals, precautions had to be made to prepare for any sudden shifts in weight distribution. The truck suspensions were adjusted accordingly, and the crates were lashed to the trailers. Once loaded, the trucks made their way from iMfolozi Game Reserve to King Shaka International Airport under police escort. (Appendix G7).

Air Transport

Due to time sensitivity, regularly scheduled air freight was not an option. PAWS sourced a charter aircraft for transportation of the animals. Considering the volume and weight of the shipment, a Boeing B747-400F was chosen.
PAWS was present during this process to oversee the operations, manage the loading, and ensure that everything went as planned. The rhinos in their crates were offloaded from the trucks, onto heavy duty ULD pallets (PMC 317*244cm) and netted (Appendix G8). Heavy duty plastic sheeting was pre-cut to the required sizes. Cellulose powder was layered between the sheets and crate (Appendix G9) to absorb the highly acidic urine and feces excreted by the rhinos so that any damage to the aircraft cargo space would be prevented. The rhinos were then loaded into the aircraft (Appendix G10). Preflight health checks were conducted, and medications administered (Appendix G11).

PAWS prepared and presented an air waybill (AWB) to the airline who, on acceptance of the shipment, stamped the AWB, retained their copies and returned the remaining copies to PAWS (Appendix F). In terms of ICAO security regulations, the shipment was accepted as “known” cargo. The plane then took off from King Shaka International Airport and landed in Lilongwe International Airport. African Parks personal were present on the flight to oversee the rhino’s wellbeing.

**Clearance**

PAWS sent the AWB, Customs, Veterinary and CITES clearance documents to African Parks, who in turn relayed these documents to their Malawian Customs agent, so that the relevant Malawian clearance procedures were completed on their behalf.

**Road Transport**

Upon arrival, the crates were offloaded from the aircraft, detached from their ULDs, and were loaded onto flatbed trailers. Onsight vets conducted post flight health checks and microchip verification. The trucks then made way to Liwonde National Park (Appendix G12).
Release

African Park rangers and vets were present at the destination. The crates were lifted off the flatbed trailers and the animals were given one last health inspection (Appendix G13). After their health had been verified, the Black Rhinos were released into the wild (Appendix G14). Each animal was released in separate areas of the reserve to decrease the possibility of hostile behavior – Black Rhinos are territorial and aggressive.

4) Closure

The purpose behind this project was not just to move a commodity from point A to point B. The mission of the Rhinos Return to Malawi project was to contribute to the conservation of these endangered species, and to ensure the existence of Black Rhino in the future. The success of this translocation is evident, as four rhino calves were born in Liwonde National Park as of November 2020, which not only increases the Black Rhino population, but improves the population’s genetic diversity to ensure sustainable and healthy growth of the species.
Import from Malaysia: Ball Mill

Africa is a continent abundant with natural resources. In this context, Zimbabwe has recently emerged as a leading world resource provider. Alongside its agricultural operations, mining is one of Zimbabwe’s major economic contributors and the industry is estimated to be worth $8.8 billion by 2023 (Chamber of Mines of Zimbabwe, 2020). Once a leading commodity, gold exports have seen a slight and steady decline, however, export of nickel has made a sudden rise. Nickel is used in the manufacturing of rechargeable batteries and is a preferred metal because of its stability under high temperatures and resistance to overcharging (Nickel Institute, 2019). With the global push towards lowering carbon emissions, the demand for electric vehicles has been steadily increasing. The demand for these vehicles has led to the increase in battery production, and the subsequent increase in demand for nickel.

To capitalize on this trend, Freda Rebecca Mine in Zimbabwe set out to expand their production of nickel and wanted to incorporate a ball mill in their operation. This piece of machinery is a large grinder, consisting of a hollow cylindrical shell filled with heavy steel balls. As the mill rotates around its axis, the balls repetitively rise up and crash back down after each rotation, which crushes robust minerals into fine powders. The mine will use the ball mill to grind nickel into its powdered form and will later export it for the manufacturing of batteries.

The mine contracted New Enterprise Trading (NET) to acquire a ball mill on their behalf. The logistical operations required to import this abnormal load will be dissected and discussed in this dissertation.
1) **Parties Involved**

<table>
<thead>
<tr>
<th>Company</th>
<th>Involvement</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selinsing Gold Mine</td>
<td>Seller</td>
<td>Sg Koyan, Malaysia</td>
</tr>
<tr>
<td>New Enterprise Trading</td>
<td>Procurement Contractor</td>
<td>Gauteng, South Africa</td>
</tr>
<tr>
<td>Freda Rebecca Mine</td>
<td>Buyer</td>
<td>Bindura, Zimbabwe</td>
</tr>
<tr>
<td>C. Steinweg Bridge (C. Steinweg)</td>
<td>Forwarding and clearing agent</td>
<td>Gauteng, South Africa</td>
</tr>
<tr>
<td>Megalift</td>
<td>Abnormal Loading and Handling</td>
<td>Port Klang, Malaysia</td>
</tr>
<tr>
<td>Marthinusen &amp; Coutts</td>
<td>Refurbishment Centre</td>
<td>Gauteng, South Africa</td>
</tr>
<tr>
<td>Titanus Slew Rings (TSR)</td>
<td>Refurbishment Centre</td>
<td>Gauteng, South Africa</td>
</tr>
</tbody>
</table>

2) **Procurement Process**

New Enterprise Trading sourced a decommissioned ball mill in the junk yard of a gold mine in Sg Koyan, Malaysia. The mine owners, Selinsing, were selling the ball mill under “as is” conditions, so any defects or damages on the cargo would be the buyer’s liability once the sale had been made. This is also known as a “what you see is what you get” transaction. It would also be the responsibility of the buyer to load and move the cargo from the origin site to their desired destination. The ball mill was not in functioning form, had no warranty and had no promise of durability, but was very cheap when compared to new machinery. It was procured as the preferred alternative.

The ball mill had been left in individual pieces from when it was first decommissioned. Selinsing provided photos of each individual piece to NET so the extent of the wear and tear could be evaluated. Weights and dimensions were also provided, allowing NET to estimate the scope of the operation that would be required to move the cargo.

*(Appendix H & R1)*
In this transaction, the Incoterms® Rule 2010 was Ex Works. In terms of the guidance note applicable to this Incoterm, “Ex Works” means that the seller delivers when it places the goods at the disposal of the buyer at the seller's premises or at another named place. (International Chamber of Commerce, 2011). This would later be specified in the Commercial Invoice. (Appendix J)

In terms of this transaction, the risk of the goods transfers to NET once they were made available at Selinsing’s junkyard, and NET (through their appointed freight forwarder) would be responsible for the total movement of goods, compliance with export and import statutory requirements and insurance from door-to-door.

3) Cargo Details

When the ball mill was decommissioned from its origin mine, it was separated into parts for easier transportation to the junkyard and had been left separated throughout its retirement. The ball mill remained separated for breakbulk shipment throughout this import, each part having a unique dimension, weight, and design that had to be considered when loading and transporting. When fully assembled, it weighed a total of 178.5 Tons. Each piece had the following characteristics:

<table>
<thead>
<tr>
<th>No</th>
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<th>Dimension</th>
<th>Weight</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>1</td>
<td>Feed End Shield</td>
<td>4.5mx4.5mx1.61m</td>
<td>25T</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Discharge End Shield</td>
<td>4.5mx4.5mx1.61m</td>
<td>25T</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Girth Gear Half Section</td>
<td>6.8mx3.4mx0.93m</td>
<td>18T</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Pinion Assembly</td>
<td>3.5mx1.72mx1.72m</td>
<td>10T</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Mill Shield</td>
<td>5.35mx5.35mx3.70m</td>
<td>40T</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Mill Motor</td>
<td>4.3mx5.1mx4.3m</td>
<td>46T</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Mill Bearing</td>
<td>2.47mx0.85mx1.20m</td>
<td>2.5T</td>
<td>2</td>
</tr>
</tbody>
</table>
### 4) Freight Estimate

C. Steinweg are a freight forwarding service provider specializing in projects, mining, and energy. They have offices worldwide, including in Port Klang, and were well suited to provide the door-to-door services that NET required. A quote was provided with rates for each process required to move the cargo, which gave NET an estimate on how much the movement would cost.

**160-ton Crane Hire**

- Delivery from Port Klang and redelivery
- 2 days of use

**EXW Selinsing Mine to Port**

- Port handling
- Collection from mine and delivery to port
- Route Survey
- Cranage cost: transfer from road vehicles to MAFI trailers
- Roll-on of MAFI trailers to vessel
Ocean Freight

- Ocean freight from Port Klang to Durban via RORO vessel

SA Landside Costs

- Landing costs, including roll-off of MAFI trailers
- Cranage costs: transfer from MAFI trailer to road vehicles
- South Africa import VAT charges

Local Delivery from Port to Refurbishment Centers, Gauteng

- Delivery from port to Marthinusen & Coutts
- Delivery from port to TSR

Cross Border Delivery

- Export Customs clearance
- Cranage hire: loading pieces onto road vehicles
- Delivery from Marthinusen & Coutts/TSR to Freda Rebecca Mine in Zimbabwe

Insurance Premiums

- Insurance premium based on delivered cost to Gauteng + 10%
- Insurance premium based on delivered cost to Freda Rebecca Mine + 10%

Documentation and agency charges

- Documentation
- Finance free based on 120 days
- Disbursement fee
Upon accepting this quote, C. Steinweg were nominated to act on behalf of NET to move and clear the cargo.

5) Multimodal Logistics Arrangements

Origin to port
C. Steinweg nominated Megalift, who specialize in loading and handling abnormal cargo, to inspect the pieces at the origin site and produce a method statement for review before commencement of the logistics operation. This document assessed the cargo, the origin site, and the surrounding routes so that the necessary resources would be available on the day of the operation, and that all precautions are taken to ensure an efficient movement to the port of load.

Vessel Booking
Due to the abnormal size of the pieces, the cargo could not be containerized. The cargo was booked onto a Roll-on/Roll-off (RORO) vessel and EUKOR was contracted to carry out the ocean transportation of the cargo. They were given a packing list so that the correct provisions were made for the abnormal cargo, in particular the provision of MAFI trailers.

Malaysian Customs clearance
Prior to the movement of the cargo, the shipment required to be cleared through Malaysian Customs and was done by C. Steinweg’s Malaysian agents.
Route Survey

The origin site was clearly not intended for frequent visitation. Dirt roads and obstructions created a barrier for abnormal goods to pass. Megalift dismantled and removed these obstructions that would have otherwise hindered the efficient movement of the trucks in and out of the site. (Appendix R3)

Trailers

The dimensions, weight, and shape of each piece was considered when the type of trailer to be used was decided. Low loader trailers were used to transport the mill shield, mill motor, end shields and gear girths as these provide an easy platform for space and weight management for abnormal cargo. General trailers were used to transport the pieces which were not abnormal. Each piece had been measured and weighed beforehand and schematics had been created so that the positioning of each piece on the trailer was determined for the most optimised distribution of weight and space. (Appendix I)

2 units of 40ft General Trailers were used for cargo not exceeding $12m(length) \times 2.3m(width) \times 3m(height)$ in dimension and/or $20T$ in weight.

6 units of Low Loader trailers, also referred to as Flat Bed Trailers, were used for cargo exceeding $12m(length) \times 6m(width) \times 4.3m(height)$ in dimension and/or $50T$ in weight.

Lifting

A $160T$ mobile crane, contracted by Megalift, was present at the site to lift the cargo onto their respective trailers. Wire rope slings were tied around each piece and were
attached to a shackle and crane hook, which allowed the crane to load the cargo onto the trailers. (Appendix L and R2)

**Lashing**

Once loaded, the cargo was secured onto the trailers to ensure stability of the pieces during transit. Chain blocks were used for robust and heavy pieces and ratchet belts were used for thinner more delicate pieces to ensure that no further damage would occur during lashing. Lashing points were specified in schematics provided by Megalift to ensure that the pieces would be securely fastened onto their respective trailers. (Appendix M)

**Police Escort**

In Malaysia, a police escort is mandatory when moving abnormal goods on road. This was prearranged. (Appendix R4)

**Port to port**

**Loading**

The pieces were transferred from the road vehicles onto MAFI trailers and were lashed to ensure minimal movement during transit with consideration to the 6 movements that occur at sea: heave, sway, surge, roll, pitch and yaw. An agent on behalf of C. Steinweg was present to ensure the quality of the lashing and filled out a surveyor's report. A Lashing Certificate was given to C. Steinweg, which mitigates any issues or claims that may be made if any damage is found upon arrival that would have occurred during transit, ensuring the forwarder would not be held liable. The trailers were towed onto the RORO vessel, the Grand Uranus. C. Steinweg Malaysia was given a clean, on-board Ocean Bill of Lading (OBL) which served as a document of title, showing proof that the
goods had been loaded aboard the vessel in apparent good order and condition and ensured the contractual obligation of the shipping line to provide deep-sea transportation of the cargo to a set port. *(Appendix N)*

South African clearance procedures were as follows:

**South African Harmonized System Tariff Classification**

During the planning phase of the operation, it was determined that the ball mill falls under the harmonized system (HS) tariff classification 8474.20.00(6) with the full tariff description:

*Machinery for sorting, screening, separating, washing, crushing, grinding, mixing or kneading earth, stone, ores or other mineral substances, in solid (including powder or paste) form; machinery for agglomerating, shaping or moulding solid mineral fuels, ceramic paste, unhardened cements, plastering materials or other mineral products in powder or paste form; machines for forming foundry moulds of sand: Crushing or grinding machines.* (SARS, 2020)

In terms of the applicable South African harmonized system code, goods falling under this tariff heading are duty free, but all imported products must pay South Africa VAT.

**Import Permit**

Apart from books and personal effects, any used, second hand or refurbished goods being imported to South Africa require an import permit. The permit was obtained before the shipment was affected through the International Trade Administration Committee (ITAC). Application was submitted to ITAC on placing the order for the goods by New Enterprise Trading, and the import permit was issued via EDI *(Appendix H).*
Import Clearing Instruction

On receipt of the Bill of Lading, packing list and commercial invoice, C. Steinweg contacted NET to obtain the Import Clearing Instruction. From the Import Clearing Instruction, it is noted that the clearance was to be affected under Customs Procedure Code A (Home Use), which implied that, for the purpose of this phase of the project, the goods were to be regarded as being permanently imported into South Africa.

Submission and Release Procedure

When loaded in Malaysia, the commercial invoice, packing list and bill of lading were transmitted electronically by C. Steinweg Malaysia to C. Steinweg Bridge.

The information contained in these documents were transcribed into Customs worksheet and the Customs Declaration SAD 500. This was electronically submitted to Customs via an EDI process, together with the relevant import permit data and the VAT payable deducted from the C. Steinweg Bridge deferred payment account with Customs. (Appendix Q)

Customs authorization was granted via SARS: Customs EDI Notification showing declaration status released and status information released.

The goods were finally released by Customs prior to arrival of the carrying vessel.

Shipping line release

Once the Customs release had been effected, the release, proof of payment of the shipping line freight and other charges and an original bill of lading were presented to the shipping line. Once the documents were verified, EUKOR issued a Delivery Release Order to C. Steinweg.
**Landing Order**

For any non-containerised goods imported into the country via ocean freight, a Landing Order must be provided to the local port authority Transnet Port Terminals (TPT) before it can be released to the importer from the vessel or bonded warehouse. C. Steinweg filled out the form with the marks, description of contents, weight, and dimensions of each piece of cargo. (Appendix I)

The form was also be accompanied by:

- A Packing List which ensured the same goods that were loaded onto the vessel at the port of load were the same goods being unloaded into the country.

- A Suppliers Invoice which proved that the goods had been obtained through a legal transaction.

- The Delivery Release Order signed by the shipping line as proof that all freight charges had been paid and that the release of the cargo was authorised.

- The SARS: Customs EDI Notification which declared status information released.

TPT approved the Landing Order, debited the amount of the landing charges to the C. Steinweg deferred account with TPT, and the cargo was released to C. Steinweg.

**Transhipment and implementation of contingency plans**

The cargo had to be transhipped in Singapore, and an issue arose when the shipping line’s soonest RORO service to Durban had been delayed due to poor weather conditions around the Singapore coast, blocking the vessel from berthing. After a 5-day delay, the weather had cleared, and the vessel was safe to dock. However, due to
miscalculations by the shipping line, it had insufficient space to fit the motor of the ball mill onboard and it was unable to be loaded. The cargo had to remain in Singapore for another week until the Morning Cornet, a RORO vessel with sufficient space, had arrived.

Unloading

The vessel berthed starboard side in Durban to accommodate the RORO ramp. The MAFI trailers were then towed off the vessel and the cargo was transferred by mobile crane onto road vehicles and lashed. A Lashing Certificate was given to the forwarder to prove adequate lashing had been made.

Load report forms were filled out by C. Steinweg Bridge. This was a proof of receipt of the cargo by the truck operators and reflected their cargo and the estimated time of delivery. These forms were provided to New Enterprise Trading to inform the refurbishment sites. (Appendix K)

Port to Refurbishment

The cargo was road transported from the Durban Port Terminal up to Marthinusen & Coutts and TSR, the refurbishment sites in Gauteng, where the pieces of the ball mill would be restored to working condition.

6) Insurance

It is noted from the Import Clearing Instruction that the importer did not require marine insurance. However, in terms of a separate instruction, marine insurance was initiated by C. Steinweg Bridge. The goods were insured for USD300 000 on a door-to-door
basis from when the cargo was loaded on the trucks at the origin site until they were
offloaded at the refurbishment site. The cargo was insured under Institute Cargo
Clauses (ICC) “A” terms including war risks as well as strikes, riots, and civil
commotions risks.

7) Delivery and Invoicing

Once final delivery had been affected to the respective refurbishment sites, clean
Delivery Notes were signed at each site and returned to C. Steinweg Bridge.

These Delivery Notes and all supporting documents evidencing all disbursements were
collated, the amounts brought to account and the invoice for the disbursements,
documentation and agency charges were delivered to the client.

8) Closure

As there were no cargo claims, this part of the transaction is finished. The goods are
undergoing refurbishment and once completed, arrangements will be made to export
the goods to Zimbabwe and delivered to Freda Rebecca Mine.
FIATA 2021 theme and United Nations Sustainable Development Goals

Supply chain operations and strategies, especially in globally visible and operational companies, can certainly have a positive impact by living up to the United Nations Sustainable Development Goals (UN SDGs).

The theme of the 2021 FIATA Congress “The Changing Climate of Logistics”, resonates well with UN SDG# 13 “Take urgent action to combat climate change”.

The two shipments discussed in this paper meet not only this Climate Change UN SDG, but others as well:

<table>
<thead>
<tr>
<th>UN SDG</th>
<th>How supported by these shipments</th>
</tr>
</thead>
</table>
| UN SDG #8: Decent Work and Economic Growth | Rhino translocation: Tourism is a major revenue resource for Malawi and the new rhino population will attract many new tourists and thus create additional tourism/hospitality employment opportunities.  
Ball mill: Employment provided by the refurbishment process and extended employment opportunities at Freda Rebecca Mine. |
| UN SDG #9: Industry, Innovation, and Infrastructure | Rhino translocation: Relocation is an innovative way of protecting the species from poaching and of creating species gene diversification.  
Ball mill: The innovative procurement approach in sourcing a secondhand piece and using existing South African technology to refurbish it. |
| UN SDG #12: Responsible Production and Consumption | Rhino translocation: Relocation of the rhino is not only good risk management but is also responsible employment of natural resources.  
Ball mill: Procuring secondhand equipment and refurbishing it is a prime example of responsible production and consumption. |
<p>| UN SDG #13: Climate Action | Rhino translocation: Increase of species diversity in Malawi contributes to a more balanced ecology which become more resilient to climate change. |</p>
<table>
<thead>
<tr>
<th>Ball mill: The refurbishment of the secondhand plant uses far less energy than the manufacturing of a new one, thus reducing greenhouse gases.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhino translocation: Humanity is the primary cause of earth’s 6th Mass Extinction in which species are becoming extinct 100 times faster than they would without human impact. This relocation represents a small but significant human act to reverse this trend.</td>
</tr>
<tr>
<td>Ball mill and Rhino translocation: Neither of these projects could have been achieved in the most sustainable way possible without the full commitment and involvement of all the partners concerned. This coordination was made possible by the efforts of the respective freight forwarders involved in both operations.</td>
</tr>
</tbody>
</table>
Conclusion

This submission is a clear demonstration of the vital role played by freight forwarders not only as “Architects of Transport”, but also as “Agents of Sustainable Development” as shown by the respective leadership roles played by PAWS and C. Steinweg Bridge in the two projects described.

It is also a clear demonstration that, in the context of freight forwarding, “leading” is not simply a question of directing a process from a distance. It is a hands-on process, always demanding unremitting attention at every strategic point throughout.
Bibliography


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https://nickelinstitute.org/about-nickel/nickel-in-batteries/#:~:text=Nickel%20(Ni)%20has%20long%20been,the%20fore%20in%20the%201980s.

SARS. (2020). Customs External Policy Tariff Classification.
C. SAD 500 – Customs Declaration Form

D. Customs EDI Notification
E. SAD: Voucher of Correction

F. Master Air Waybill
G. Photographic narrative of the translocation

1. Tracking team set out to find the rhinos.

2. Rhino spotted and darted.

3. Veterinary health and microchip checks.
4. Rhinos in quarantine in the boma.

5. Loading into the crates.

7. Transport to King Shaka International Airport.

8. Crates offloaded from the trailers to ULDs.

9. Crates wrapped and lashed.

10. Loading into the aircraft.

11. Pre-flight veterinary checks.
12. Transport to Liwonde Game Reserve.

13. Crates offloaded at destination.

H. Initial listing of the ball mill

I. Trailers schematics for weight and space distribution
J. Commercial Invoice

K. Load Report
L. Schematic of the crane loading operation

M. Diagram of optimal lashing points
N. Ocean Bill of Lading

O. ITAC Import Permit
### Landing Order

- **Agent Reference:** [Redacted]
- **Signatory's Company:** [Redacted]
- **Email:** [Redacted]

### Customs Worksheet

#### Invoice Number Information

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#### Notes
- 1. [Redacted at Bill of Entry line level]
R. Photographic narrative of the operation

1. Pieces of the ball mill laying dormant in the Junkyard.

2. Crane, truck and trailer arrival at site.

3. Lifting and loading onto the trailers.
4. Identification and removal of obstructions.

5. Transport to Port Klang.

6. Transferred to MAFI trailers and loaded into the vessel.
7. Arrived and unloaded in Port of Durban.

8. Arrival at the refurbishment sites.