# Multimodal Heavy Machinery Logistics: China to Brazil

## Multimodal Project Logistics

### Sea, Road & Air

Röhlig Logistics coordinated a complex multimodal project to move four exceptionally heavy machines from China to Brazil via a hybrid route spanning three transport modes and four countries.



# Project Highlights

| Project Detail | Verified Information |
|---|---|
| **Origin** | China |
| **Destination** | Brazil |
| **Transport Modes** | Ocean, Road and Air |
| **Teams Involved** | China, Germany, United States and Brazil |
| **Additional Services** | Crane handling, oversize and overweight permits, in-bond transport, export documentation, carrier coordination and emergency platform rebuilding |
| **Cargo** | Four exceptionally heavy machines |

# Project Overview

## The Customer Requirement

The customer required four heavy machines to be transported from China to Brazil using a hybrid, multimodal solution.

The route began with **sea freight** from China to Los Angeles. Each machine then travelled by flatbed truck from Los Angeles to Miami, crossing eight US states, before being flown individually from Miami International Airport to Viracopos International Airport in Brazil.

Every stage had to be planned around the machines' exceptional weight, handling limitations and strict compliance requirements.



# The Challenge

## Operational Complexity

### Specialist Crane Handling Required

The physical characteristics of the cargo ruled out conventional forklifts, making cranes essential for offloading and other critical handling operations throughout the route.

### Oversize Road Permits Across Eight States

The US road movement required oversize and overweight permits throughout all eight states, with cargo moving in bond via TSA-certified flatbed trucking and restrictions on overnight stops.

### Exacting Air Freight Acceptance

Röhlig had to coordinate loading arrangements and provide accurate cargo information to secure Atlas Air's acceptance of each heavy piece on a commercial service, with ramp access and heavy-duty cranes at Viracopos Airport.

### Multi-Jurisdictional Documentation

Import, export and in-bond paperwork had to remain accurate and consistent across multiple modes, jurisdictions and operational handovers throughout the entire route.

# The Solution

## How Röhlig Responded

### Coordinated Multimodal Route

Röhlig developed an end-to-end plan connecting ocean, road and **air freight**. Teams in China, Germany, the United States and Brazil coordinated responsibilities across the route, with local support at the major handover points in Los Angeles, Miami and Brazil.

### Permitted Flatbed Trucking

Oversize and overweight road permits were secured across eight US states, with in-bond movement managed under the applicable security restrictions using TSA-certified flatbed transport and careful route planning.

### Crane Handling & Airline Coordination

Each machine was individually tendered to the airline with precise loading plans and accurate cargo information. Ramp access and heavy-duty cranes were arranged for handling at Viracopos Airport, meeting all commercial-aircraft acceptance requirements.

### Precise Documentation Throughout

Import, export and in-bond paperwork was maintained with accuracy and consistency across all modes, jurisdictions and operational handovers, ensuring compliance at every stage of the multimodal journey.

### Emergency Recovery in Under 48 Hours

When the final machine's wooden platform was damaged due to unsuitable construction materials, Röhlig recovered the cargo from the airline over the weekend and arranged an emergency rebuild. The replacement platform was completed in less than 48 hours, allowing the machine to be re-tendered in time for its Wednesday morning flight.

# The Result

## Verified Outcomes

- Oversize and overweight road transport managed successfully across eight US states.
- Carrier acceptance secured for each machine individually on a commercial air service.
- Specialist crane handling arranged where forklifts could not be used, ensuring safe cargo operations throughout.
- A damaged wooden platform rebuilt in less than 48 hours, with the final machine re-tendered in time for its Wednesday morning flight.
- Effective collaboration between Röhlig teams in China, Germany, the United States and Brazil across all modes and borders.

## Röhlig Perspective

> *"This project showed the value of strong network communication and coordination across China, the United States, and Brazil. By working closely across all three countries, our teams were able to manage complex handovers, oversize cargo requirements, in-bond movements, carrier coordination, and unexpected operational challenges (packaging structure malfunction) while keeping the shipment moving as planned. When the final platform was damaged, our teams and partners acted immediately, completing the rebuild in under 48 hours and meeting the re-tender deadline."*

**Cristian Roman**
Regional Air Freight Manager · Procurement Air
Röhlig USA



# Frequently Asked Questions

**How can exceptionally heavy machinery be transported internationally?**

Heavy machinery may require a multimodal solution combining ocean, road and air freight. The transport plan must account for cargo dimensions and weight, suitable loading equipment, road permits, carrier acceptance criteria, customs requirements and safe handovers between modes.

**What permits are required for oversized cargo moving by road in the United States?**

Permit requirements depend on the cargo dimensions, weight, route and states involved. In this project, oversize and overweight permits were required across eight states, supported by detailed route planning and specialist flatbed transport.

**Can exceptionally heavy cargo travel on a commercial air service?**

Yes, subject to the aircraft's capabilities and the airline's acceptance requirements. Accurate cargo information, appropriate packaging, loading plans, ramp access and specialist lifting equipment may all be required. In this project, each machine was prepared and transported individually.

# Have a logistics challenge of your own?

Every shipment comes with different requirements. Whether you're planning a complex project, exploring a new trade lane or simply looking for a more effective way to move your cargo, our teams are ready to discuss the options with you.

**Talk to a Röhlig logistics expert about your requirements and find the right approach for your business.**

Contact us online | Find your local office

*Prefer to manage shipments online? Röhlig Realtime brings quoting, booking and tracking together in one place.*

Explore Röhlig Realtime