

Case Study

# TRAC Intermodal Fleet Modernization Meets Chassis Supply Challenges



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# Introduction

## The Role of Chassis in the Supply Chain

One of the most critical components in the efficient and timely movement of goods to and from U.S. ports through the nation's supply chains are marine chassis. These chassis are either owned or managed by Intermodal Equipment Providers (IEPs) at or near ports nationwide and inland at major rail hubs.

They are used by motor carriers to transport containers filled with cargo to retailers, rail depots, warehouses, transportation hubs and multiple other destinations around the country or outside the country as an export.



**Ocean carriers** transport cargo-filled containers over water to be unloaded at U.S. ports.



**Chassis providers** own and manage chassis at or near the ports. Containers are loaded onto chassis.



**Motor carriers** connect to chassis to transport containers from ports to retailers, rail depots, etc.

## TRAC Intermodal: the Largest Marine Chassis Provider in the U.S.

Marine chassis are the centerpiece of TRAC Intermodal's business. TRAC is the largest marine chassis provider and pool manager in the U.S. with 180,000 marine chassis operating across 650 locations, serving more than 6,000 customers nationwide.

Through its subsidiary, TRAC Services, TRAC operates six service centers that provide chassis maintenance and repairs, ensuring premium equipment safety and quality while maximizing availability for customers.



**180,000**

marine chassis, the highest market share in the U.S.

**145,000**

chassis available at TRAC's neutral and CCM pools

**1.8MM**

EDI transactions processed each day

**6,000+**

transportation customers nationwide

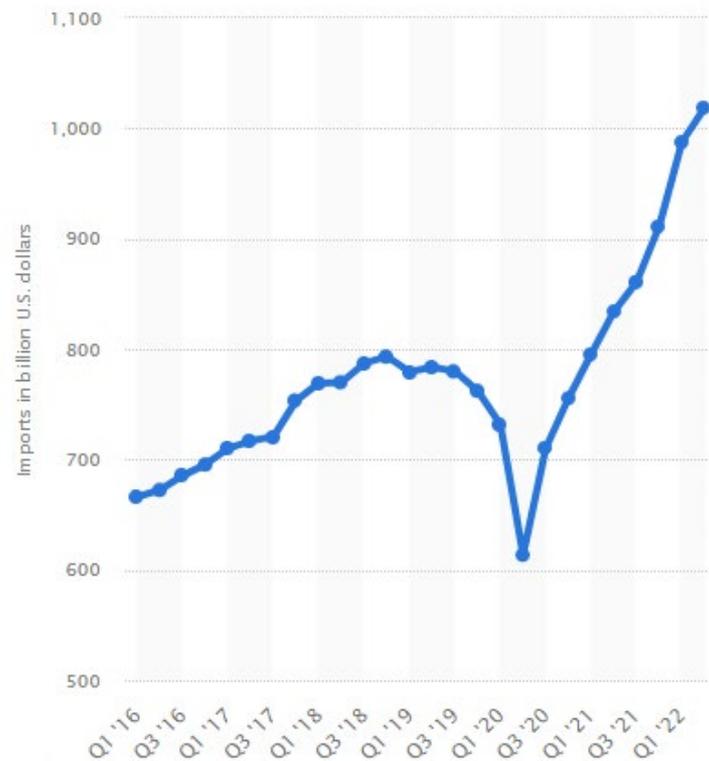
# Challenge

## High Customer Demand Amid Chassis Manufacturing Concerns

Record import volumes over the past few years have led to high utilization of marine chassis. In addition, there has been a growing trend among retailers to stockpile inventory to meet strong consumer demand for goods. High rates of chassis usage put pressure on available units, which constrained supply. Stockpiled inventory expanded the number of import boxes at marine terminals and railyards, idling thousands of chassis with containers sitting on top of them at distribution centers, terminal properties, and other locations around the country.

This dynamic is reflected in prolonged dwell times for chassis carrying 20-foot and 40-foot containers, which can average ten days or more, two to three times above historical averages.

## U.S. Import Volume, by Quarter



Source: Statista

Fueled by the U.S. imposition of retaliatory duties on chassis manufactured in China back in 2020, an overhaul in the chassis manufacturing landscape is also a mitigating factor limiting chassis supply. This decision largely halted chassis deliveries from CIMC, which represented more than 90 percent of chassis deployment in the U.S.

Even with new domestic and off-shore chassis manufacturers entering the market, marine chassis production is limited and supplies trail customer demand.

In June 2022, TRAC President and CEO Daniel Walsh noted that “Despite a limited ramp up in chassis production by U.S. manufacturers, chassis supplies materially lag customer demand.”



**Despite a limited ramp up in chassis production by U.S. manufacturers, chassis supplies materially lag customer demand.**



Daniel Walsh, President & CEO, TRAC Intermodal | *Journal of Commerce*

# Solution

## Fleet Modernization and Investment

Faced with the dual challenges of constrained availability of new chassis and increased demand for equipment to meet import volumes and stockpiled cargo inventories, TRAC needed to innovate and create “out-of-the-box” ways to grow its marine chassis pool.

While domestic production of chassis would take time to ramp up due to order backlogs, labor challenges and pent-up demand, TRAC chose to make a concerted effort to increase and diversify its invest in new equipment as well as looking inward, optimizing its fleet of existing assets.

In fact, since 2015, TRAC has invested more than \$1 billion in fleet modernization. TRAC is continuing to up its annual investment with record levels planned for 2023.



Since 2015, TRAC has invested more than **\$1 billion** in fleet modernization.

2022 was a record year for TRAC fleet investment, up **130 percent** over 2021 levels.





TRAC routinely inspects the company's marine chassis fleet for roadability and safety. Older chassis with aging components but solid steel integrity become viable candidates for TRAC's BlueEdge chassis refurbishment program. This program transforms older chassis to the highest level of safety and performance. Those that do not satisfy rigorous safety and quality criteria are decommissioned from the active fleet and are recycled.

Each year, thousands of TRAC chassis are upgraded with features such as LED lights, radial tires, all-new wiring harnesses and new brake systems. Over the last five years, TRAC has upgraded or added new, over 85,000 chassis to its U.S. fleet. The goal of this program is to increase the number of modern, reliable and sustainable marine chassis available to the marketplace.

In a clear indication of its ability to repurpose existing equipment, TRAC reduced out-of-service levels for marine chassis to 2%, representing historical lows.

## Refurbishment Takes Many Forms

### Reconditioning the Frame

Chassis are disassembled down to the frame and axle and are fully sandblasted to bare metal and inspected for defects. The frame is then repaired and reconditioned back to its factory specifications.

This process repurposes the original steel for each chassis, saving over 7,000 pounds of CO<sub>2</sub> emissions versus manufacturing a new chassis.



TRAC's frame reconditioning process saves over

**7,000 lbs of CO<sub>2</sub>**

compared to new chassis manufacturing

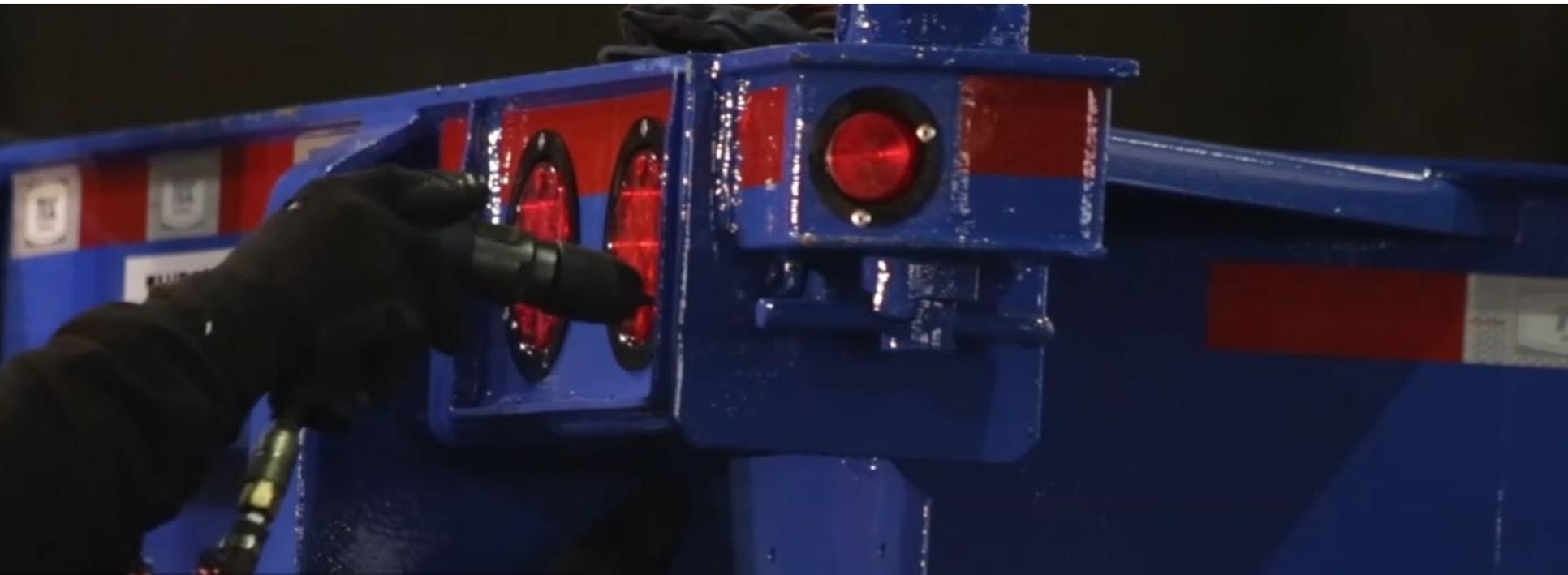
## Applying Protective Paint

Once the sandblasting and repair work is completed, the frame is painted with a two-coat application process. A corrosion-resistant sub-coating is applied first followed by the signature TRAC Blue finish.



## Upgrade with Premium Components

New electrical wiring harnesses, air lines, brake hoses, LED lights, single-piece rims and radial tires are assembled onto the reconditioned frame.



## Rigorous Inspections

TRAC experts rigorously inspect newly refurbished chassis to ensure the highest quality and safety standards are met prior to getting this equipment back on the road. Once refurbished, TRAC BlueEdge chassis match new chassis in quality and performance.



# Results

## Boosting Chassis Availability

TRAC is helping increase the availability of marine chassis in the U.S., adding thousands of upgraded units each year. These efforts are helping benefit TRAC customers. Here is what some are saying about wider equipment availability:



TRAC's BlueEdge refurbished chassis are the perfect match for our business and clients. We were happy to have been able to secure a lasting relationship that meets all our needs in regard to intermodal equipment. The assured delivery and supply of units that perform and keep our safety goals in-line with new chassis types have made this a successful partnership. We happily rely on TRAC equipment.



Julio Cesar Torres, CEO & President, JCT



The successful combination of TRAC's new chassis and their BLUE EDGE Refurbished chassis has enabled our company to reach new heights in service to our customers. With the excellent support we receive throughout their organization they are a key partner in our future growth.



Gary C Mooney, President, Green Fleet Systems



TRAC's people have a "get it done" attitude, understanding they are a powerful force to keep the product moving, ultimately getting the goods to the end consumer. The availability to provide either new chassis or the recently offered "Refurb program" allows us the flexibility to source equipment quickly and efficiently.



John Amato, Senior Vice President, NFI/Cal Cartage

## Refurbishing for Sustainability

TRAC's chassis refurbishing program also delivers a wide range of environmental benefits:



LEDs offer a savings of 88 percent over incandescent lights; this translates to nearly 4,000 pounds of CO2 savings annually per light



Radial recap tires offer a number of benefits over prior bias-ply tires: fuel economy increases by 10 percent; carbon emissions from tires is reduced by 30 percent, using 35 percent less materials; and this option delivers 465 pounds of CO2 savings per chassis

With the completion of its chassis refurbishment process, TRAC pursues a comprehensive recycling program, along with environmentally-friendly business processes and solutions.

- ▶ TRAC recycles 70,000 tires each year
- ▶ TRAC recycles 1.6 million pounds of tire rubber dust annually
- ▶ TRAC recycles 20 million pounds of chassis metal each year
- ▶ TRAC has recycled 33 million pounds of chassis axles over the past three years
- ▶ TRAC recycles 1.5 million pounds of rims annually

# Conclusion

The challenges of new chassis manufacturers still working through their “ramp up stages”, port and rail congestion, and stockpiled warehouse inventory continue to severely constrain equipment availability at many ports and railheads around the country.

TRAC has responded to these challenges by recommitting to the more than \$1 billion investment it has made in fleet modernization over the last decade.

Its mission is clear: TRAC believes in this market and is laser-focused on ensuring that the latest, safest, most reliable and sustainable marine chassis are available for more than 6,000 customers at more than 650 locations near major ports and transportation hubs nationwide.

TRAC is well positioned to meet the needs of its customers, whether through chassis pools, ownership or long-term leasing, today and into the future.



**Watch the video to see the full  
fleet modernization process  
from start to finish.**

