Intermodal University –
Intermodal Chassis: The Past, Present, and Future

Monday, September 17th, 2018
11:30 am – 12:30 pm
Long Beach Convention Center,
Long Beach, CA
Intermodal University – Intermodal Chassis: The Past, Present, and Future

Moderator:
• Jeff Brashares — Dean, Indiana University

Panelists:
• Rob Cannizzaro — Vice President of Equipment Operations, CMA CGM
Why are we here?

• Next to the shipping container, no other piece of equipment is more critical to the success of intermodal freight.

• This session will provide an introduction to the intermodal chassis that will include;
  • basic function
  • types
  • provisioning models
  • and the future of this critical link in the supply chain
Agenda

1. Basic Function
2. Types
3. Provisioning Models
4. The Future
What is an Ocean Container Chassis?


An ocean container chassis is a wheeled structure designed to carry marine containers for the purpose of truck movement between terminals and shipping facilities. It is a simple electromechanical device composed of a steel frame, tires, brakes and a lighting system.
What is an Ocean Container Chassis?

1. Bumper
2. Kingpin
3. Lamps
4. Mudflaps
5. Tires
6. Landing Gear
7. Bolster
8. Frame
9. Twistlocks
10. Conspicuity Tape

Linking Container and Chassis

Source: Chassis King
What is an Ocean Container Chassis?

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Common Types

**Standard Chassis**

Available most commonly in 20’, 40’ and 45’ lengths

**23’ Slider Chassis**

Designed to spread cargo weight over additional axle distance to carry greater loads (GVWR 74,100 Lbs. vs. 67,200 Lbs.)

Source: CIMC Intermodal Equipment
Common Types

20’ Triaxle Chassis

Typically allows for an additional 6500 lbs. of cargo payload capacity

20’/40’ Combo Chassis (8 pin)

Carries One (1) 20’ Loaded, One (1) 40’ Loaded Or Two (2) 20’ Empty ISO Containers

Source: CIMC Intermodal Equipment
Common Types

**Multiaxle**

More axles combined with greater distance between axles allows for greater payload capacity

**Underslung Genset Chassis**

Standard 20’ or 40’ Chassis may be paired with an underslung genset (diesel powered electrical generator) to carry and provide electrical power to refrigerated containers
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Types Of Chassis Provisioning

- **2009**
  - Leasing Companies: 49%
  - Ocean Carriers: 51%

- **2012**
  - Leasing Companies: 67%
  - Ocean Carriers: 33%

- **2013**
  - Leasing Companies: 83%
  - Ocean Carriers: 17%

- **2018**
  - Leasing Companies: 86%
  - Ocean Carriers: 9%
  - Motor Carriers: 5%

Source: Trac Intermodal
Consolidated Chassis Management
Provisioning Models – Global Model

Source: Consolidated Chassis Management
Provisioning Models – Original US Model (pre 2005)

Source: Consolidated Chassis Management
Provisioning Models – US Model (post 2005)

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Source: Consolidated Chassis Management
Facility Model – Wheeled vs. Grounded

GROUNDED:

• Standard model around the world
• Higher storage density
• Portion of grounded terminal space reserved for wheeled operations that might be high priority or refrigerated or hazmat.
• Most commonly used by Marine Terminals

WHEELED:

• Easy for drivers
• Constrained by chassis flips (defective chassis, container too heavy, chassis cannot leave terminal or mc has their own)
• Requires larger chassis fleet / more land to store
• Most commonly used by Rail Terminals

Source: Consolidated Chassis Management
Types Of Chassis Provisioning

Own or lease your own.
- Good for live lift facilities
- Requires sufficient parking or storage location, maintenance and other administrative items

Cooperative Pools
- Open to all different types of members
- Interoperable, can be used for any participating user, whether merchant or carrier haulage
- Usually services major ocean and rail terminals
- Good for mounted facilities
- Contribute chassis or just use pool chassis under an existing member
- CCM operated pools allow for choice of chassis provider within the pool

Neutral Pool or Dedicated Pool
- Usually a single pool operator at a facility

A “pool of pools”
- Interoperable chassis fleet where several pools operate together
- Each performs their own M&R

Day Rental: Various forms
- Predominantly from a leasing company that has a service center
- Web Applications: book through chassisfinder, chassisnow, reserve day rentals

Source: Consolidated Chassis Management
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