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Joint Damage Prevention Task Force

Chassis Stacking Recommended Practices

Identification of Recommended Practices For Each Chassis Stacking Process

Recommended Practices For Each Chassis Stacking Process

The purpose of the Chassis Stacking Subgroup is to identify recommended practices to reduce damage associated with the safe stacking of intermodal chassis, either horizontally or vertically, with facilities for storage or relocation.

Stacking Equipment

There are multiple means for stacking equipment. As with any other piece of equipment, they are only as safe and useful as the driver that operates them.

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Conformity of Stacking

Stack like/similar chassis with same size

- Rigid frames should be combined with rigid frames
- Expandables with expandables
- Sliding tandems in the same position, to the rear, as much as possible.

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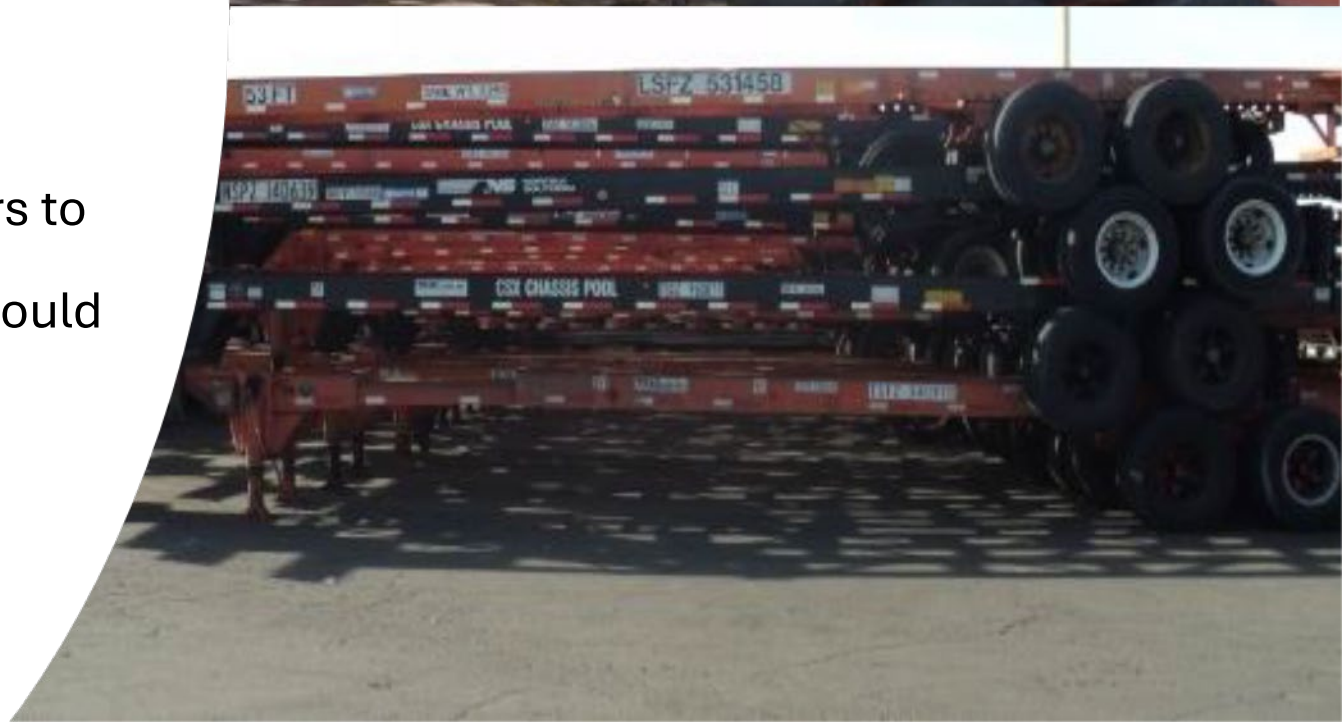
Horizontal Stacking Recommendations

- Stack no more than 4 to 5 high dependent upon leg cross brace design
- Lift one (1) chassis at a time for safety
- Safe Chassis Location
  - If space and operations allow, creating a designated location strictly for chassis stacking with signage, striping, or barriers to prevent over the road drivers, POVs, mechanics or any other obstacles that could lead to accident or injury



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Horizontal Stacking Recommendations (cont.)

- 1st chassis regular position; 2nd chassis flipped off set, tires to the front; 3rd chassis rear tires sitting on off-set front of second chassis; 4th flipped like second; 5th set evenly on top matching chassis #3
- Position the tandems to the rear as much as possible.
- All chassis need to be clipped to be road worthy
- Familiarizing yourself with finished coating of painting. Some finishes are slicker than others causing chassis to slide potentially damaging or falling.
- Inclement weather prep
  - Keeping stacks tight
  - Strapping / chaining if needed

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Proper Horizontal Chassis Stacking

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Positioning of the landing leg cross brace

Chassis with tubular cross braces or bracing less than four inches in width should be positioned either as the bottom or topmost chassis in the stack to avoid damage.

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Correct Positioning of the landing leg cross brace

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Positioning of the landing leg cross brace

Every opportunity must be taken to assure the leg brace after the first chassis on the ground is not positioned in the transition portion of the prior chassis.

Ensure the crank handle is stowed away properly.

Improper Leg Position

Proper Leg Position

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Brake pods that sit below the chassis should be on the bottom of the stack (as seen below).

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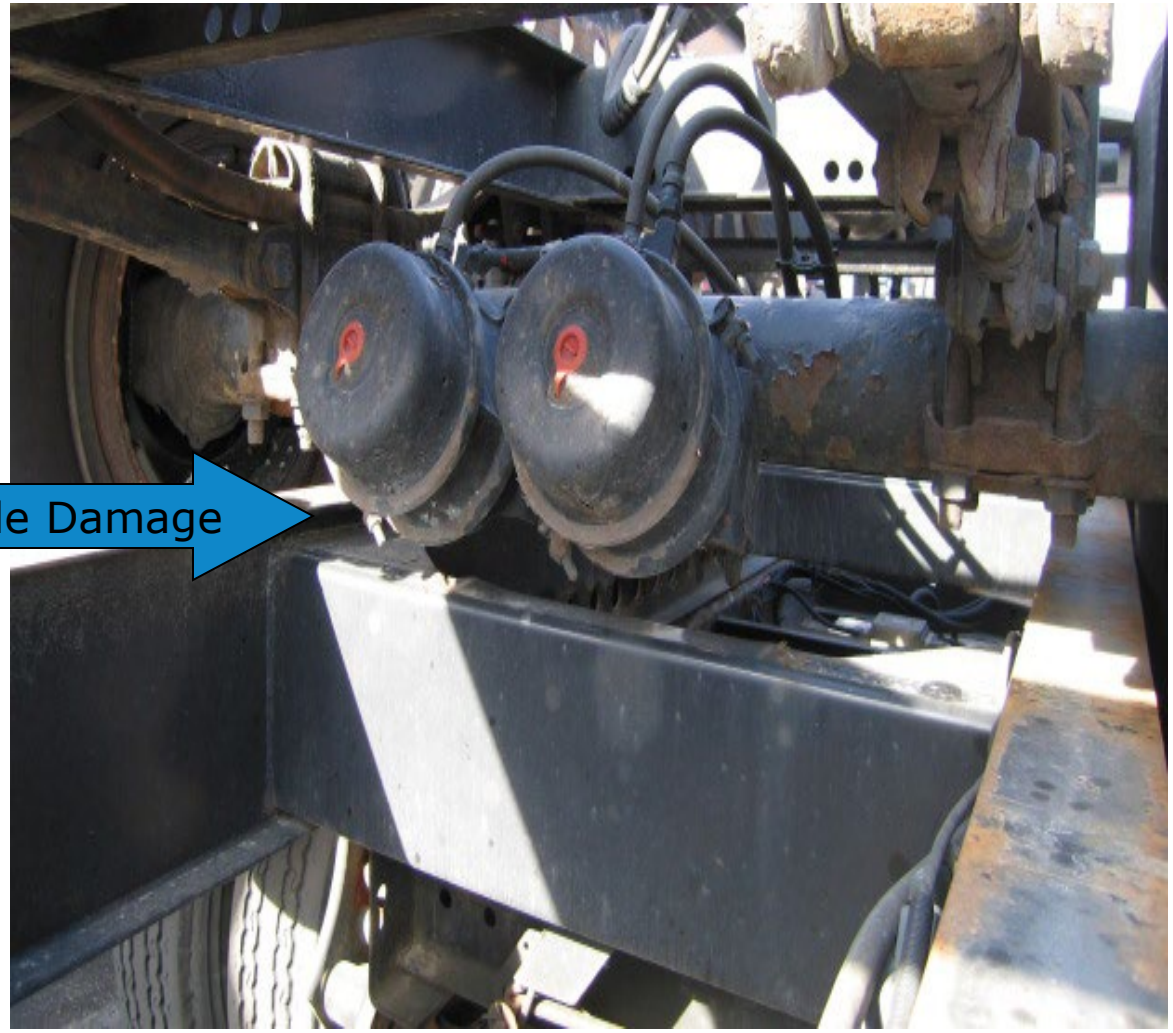
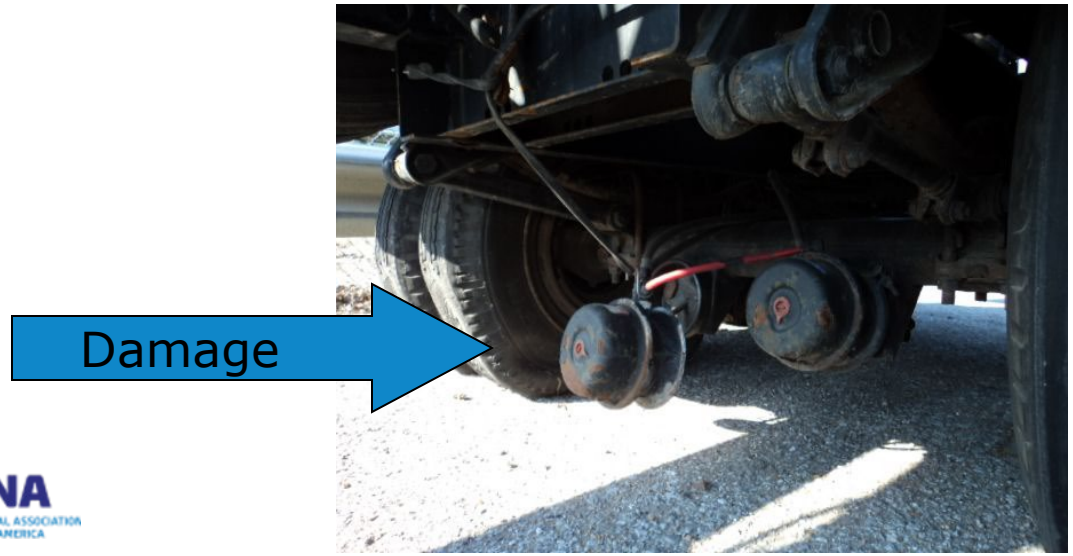
Attention should be paid to brake pods and where they “land” in the prior chassis so as not to cause unnecessary damage. Brake pods that sit below the chassis should be on the bottom of the stack.





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Stagger Stacking

Chassis will be stacked alternately with the tandems loaded in the void front, back, front, back.

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Stagger Stacking (cont.)

Under no circumstances are tires to be loaded on top of other tires or chassis stacked consecutively towards the front posing a safety hazard.

Incorrect Stacking/Tire on Tire

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Stagger Stacking (cont.)

Tires should never be loaded on top of other tires.

Tire on Tire Incorrect Stacking

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Horizontal Chassis Stacking Video Clips

Fleet Chassis Stacking - Horizontal (1 min)

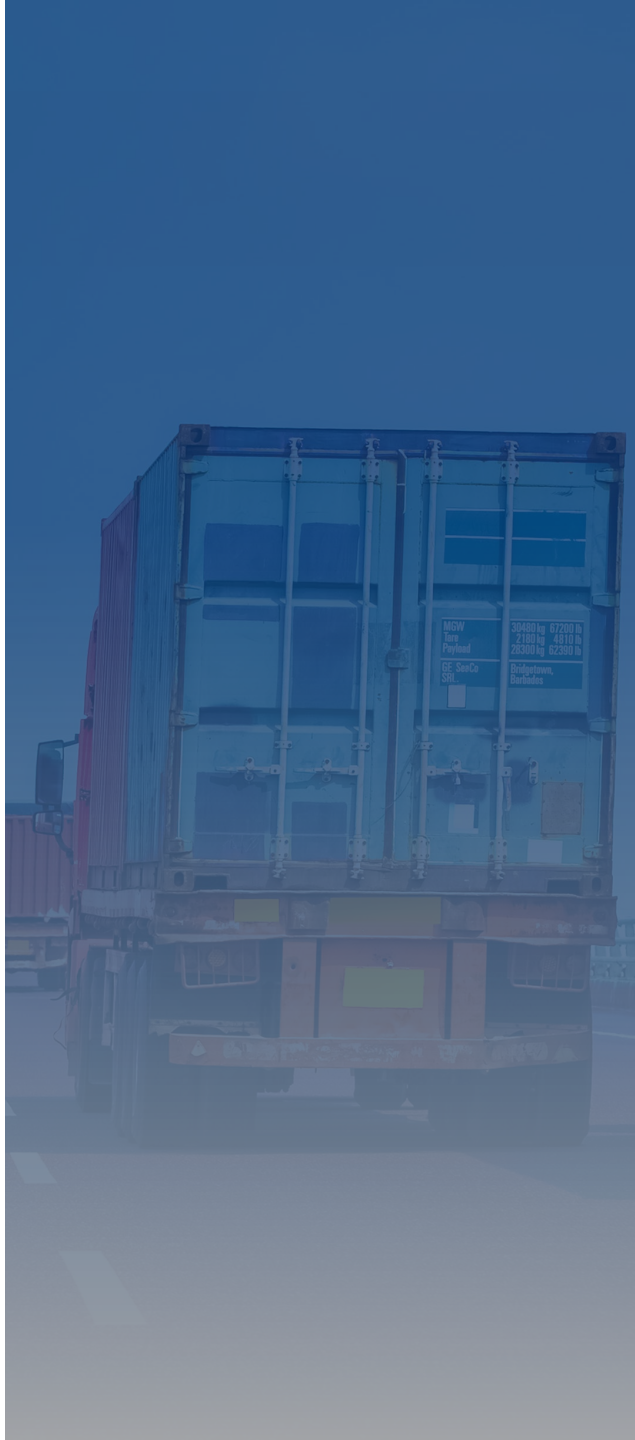
Chassis Stacking w/Forklift (10 min)

40' Chassis Stack w/pallets (4 min)

Container Chassis Stacking Video w/Forklift (3 min)

Flipping 40" Chassis in the Upright Position (28 sec)

5-High Chassis Stacking (22 sec)



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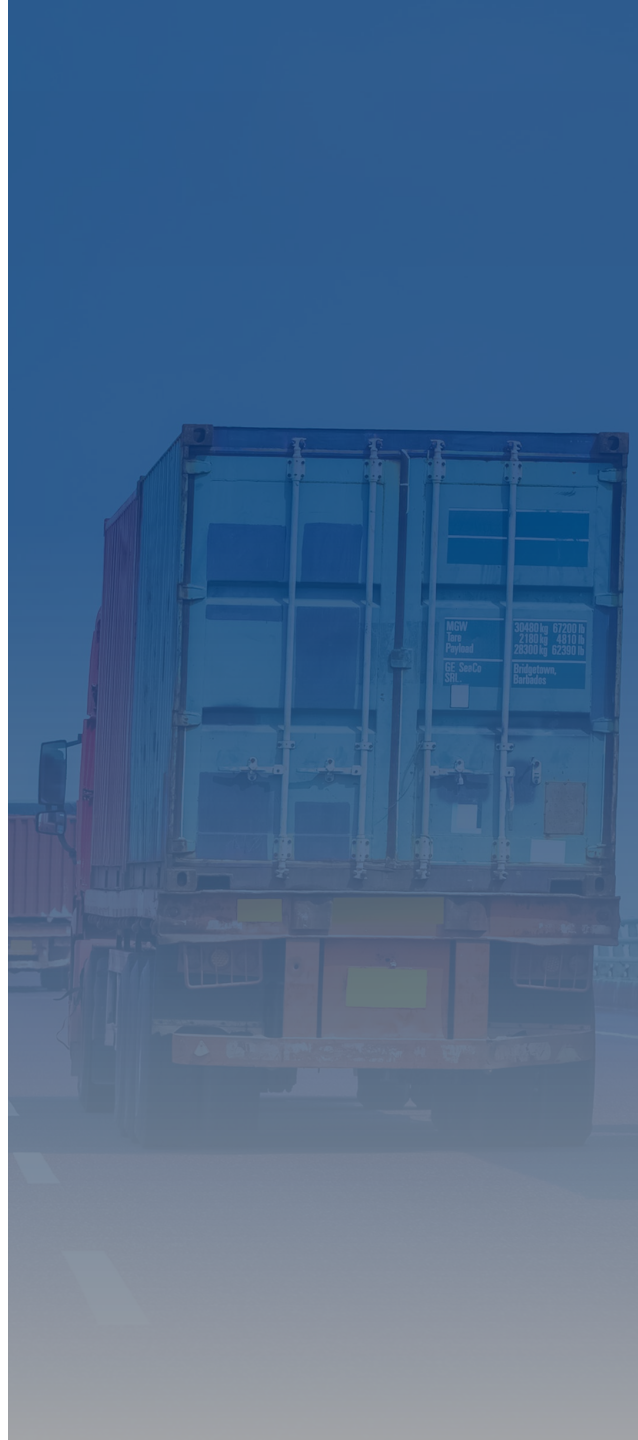
Prior to Stacking Chassis Verification

No damage to chassis components that will affect the stability of the stack.
(examples: leg defects, main rail defects or sub frame defects).

Tandems are in a consistent position; in rear position or in similar position as other chassis being stacked

Landing leg cross brace is of the heavy-duty variety (4” channel).



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Prior to Stacking Chassis Verification (cont.)

Under mount brake chambers and slack adjuster are used as bottom unit only to prevent damage to these components

Airlines will be clear of the lift equipment to prevent damage. This will depend on if an attachment is used and what type of attachment is used.

Chassis does not need to be carried more than a reasonable distance to be placed in the stack, (should not have to be turned around or carried through the traffic lane).

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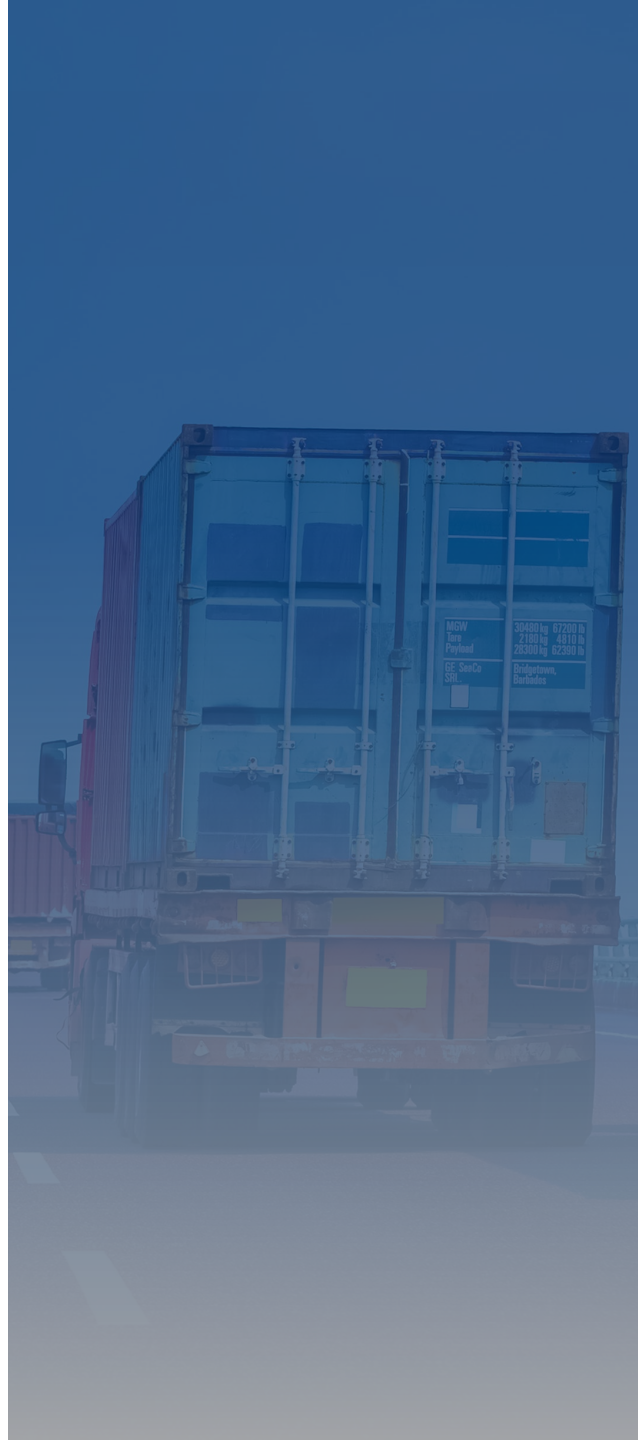
Post Stacking Operator should verify the following:

Chassis is centered and not leaning off to one side.

Landing leg cross brace is not sitting on the transition from the gooseneck to the main rails

Landing legs are offset with the unit below to prevent interlocking against each other.

Tires are offset in between axles and not tire on top of tire.



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Post Stacking Operator should verify the following (cont.):

All axles and brake components are clear and do not rest on the main rails of the chassis below.

There are no components that are extruding outside the framework of the chassis in the stack.

No portion of the chassis is extruding out into any lane of traffic. Example: A bent DOT bumper protruding into a drive lane or walkway that could hit by a piece of equipment or person

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