

ISSUE NUMBER

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ISSUE NAME

OOSC, Part II, Item 2. Cargo Securement, i. Metal Coils

STATUS

Closed

Vehicle Committee

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AGENCY

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Large metal coils being transported on a flat deck trailer with a wood deck.

I received a concern from a towing company who was called out to reposition a large metal coil on a flat deck trailer, which had broken through the wood planks. Apparently, this was not the first time they have seen this kind of failure, which appears to be caused by the inability of a wood deck to carry a highly concentrated load.

JUSTIFICATION OR NEED

It is unknown if the timbers used to haul the metal coil in the attached picture entitled "Metal Coil Breaking Wood Deck", were secured in accordance with either the requirements of either the NSC-10 Division 3 Section 50, or 49CFR393.120(c). However there appears to be a cradle made of two timbers with "coil bunks" to prevent the timbers from spreading apart or coming loose, as shown in picture entitled "Steel roll on timbers with coil bunks Left and Right".

From the original CCMTA Load Security Research Project, Report #15, Tests on Methods of Securement for Metal Coils:

- From the Executive Summary: "It is recommended that large a metal coil should only be transported on a cradle, that the cradle should preferably be immobilized, and the coil should also be immobilized so that it cannot slide along the blocks. Any desired level of lateral and longitudinal resistance can be delivered by making appropriate use of cradle dimensions, friction and chain tiedowns. It is expected that placing the cradle so that the coil has its eye laterally on the vehicle should, in general, provide the most reliable securement."

(Note: crosswise = lateral)

- 7/ Recommendations

"Large metal coils are inherently incompatible with flatbed trailers, so they should preferably be transported on custom-designed trailers."

REQUEST FOR ACTION

For discussion at the CVSA Cargo Harmonization Public Forum to take place on April 14, 2024, to determine if the CCMTA Standard 10 Cargo Securement and 49CFR393.120 should be updated to require some dimensional requirements for the timbers making up the cradle to secure a metal coil, perhaps including a requirement for a

cradle with a base to distribute the load over a larger area of a wood deck, with timbers extending across the full width of the trailer to prevent such failures.

Certainly, such a requirement needs to have technical input from trailer manufacturers regarding generic trailer specifications for the maximum number of “pounds per square foot” or “Newtons per square metre” for a trailer with a wood deck. And perhaps input from companies that routinely haul metal coils on flat deck trailers with a wood deck.

SUPPORTING DOCUMENTS/PHOTOS

- [Metal-Coil-Breaking-Wood-Deck.jpg](#)
- [Steel-roll-on-timbers-with-coil-bunks-Left-and-Right.jpg](#)

ACTION TAKEN BY COMMITTEE

Many attendees in the meeting have seen this issue in the past, but it usually happens when the trailer decking is worn out and the deck fails. Many steel haulers use chamfered 4x4's, but they can also fail. After discussion, as representative from CCMTA suggested that this most likely a one-off and that the company just needs better training. The committee agreed and felt that no further action was required and the issue was closed.