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

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Vehicle Committee

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SUMMARY OF ISSUE

This issue is in reference to a Crash BASIC Investigation on a carrier where the CMV was transporting steel coils. Coil transportation is part of the carrier's regular cargo, so they are well versed on the requirements when it comes to regulatory and industry standards on load securement for the steel coils even adding the necessary edge protection for securement devices.

This fatal crash was caused by a "salvage coil" being transported on the rear of a standard flatbed semitrailer among other normal coil cargo. I'm not sure how common the nomenclature is for "salvage coil," but the industry refers to them as salvage primarily because they are collapsed or flattened. I assume this makes them unusable for the machine that dispenses or feeds the metal during some manufacturing process, but that is my best guess.

The weight of this flattened coil was estimated to be between 12,000 and 14,000 pounds, and it was transported lying on the bed of the trailer with the eye crosswise (resembling the picture attached). Again, this coil was flattened to the extent that no securement device could fit through the eye, so the driver of the CMV used two, 4-inch webbings to secure the palletized coil in a crisscrossed pattern over the top and then anchoring to the trailer deck.

There is no doubt that additional securement could have been used to ensure total containment of the sides of the coil in these circumstances, but it was the steel banding used by the supplier or shipper to keep the coil together which failed. As a result, the coil unspooled, leaving the cargo deck through the void left between the load securement straps.

I've looked through most of the content I have, as well as regulation, and when it comes to steel coils, I'm not sure there is any specific guidance to address these "flattened" type coils, which pose the additional risk of steel banding failure and unspooling due to the inability to secure through the coil eye.

JUSTIFICATION OR NEED

The metal banding used to hold coils together could be stressed beyond holding capacity simply due to the additional force exerted from flattening, but I don’t have a source of information for that, and we don't regulate the banding as a securement device either.

In this load securement failure, the shipper used two steel bandings to hold the coil together, and both failed which allowed the coil to unspool from the side of the CMV and into an opposing lane of travel.

These flattened or crushed steel coils present a significantly different load securement challenge than those coils addressed in cargo specific load securement regulations. It seems possible to meet the minimum load securement requirements in Title 49 and still risk the same type of steel shipping band failure and unspooling.

REQUEST FOR ACTION

I would like to submit this issue request and for the topic to be discussed in the next scheduled Cargo Securement Forum if possible. Collaboration with industry may be needed for additional input and solutions for more strenuous regulation or cargo specific guidance for transporting flattened steel coils.

SUPPORTING DOCUMENTS/PHOTOS

- Screenshot-2024-12-03-080857.jpg

ACTION TAKEN BY COMMITTEE

There was a lot of discussion about the picture and whether a tiedown could be run through the eye. The question was asked if the coil in question came unspooled and caused the accident or if it was a result of the accident and no one knew for sure. When the group reviewed the definition of a metal coil, nothing indicated that it wouldn’t still be a coil, just because it is now flattened. Someone asked if this could be secured under cargo specific rules in 393.120 or could general load securement rules be used. Industry pointed out that the driver could have secured it better. It was pointed out that the coil could have been loaded with the eye vertical as well. The result of the discussion was that there is nothing in the regulation that would indicate that this is not a metal coil and therefore, needs to be secured as such under 393.120.