

Technical Information Bulletin

U.S. Department of Labor
Occupational Safety and Health Administration



Inspection of Suspension-Type Highway Trailers Prior to Loading and Unloading with Powered Industrial Trucks

TIB 00-07-31

Purpose

The purpose of this Technical Information Bulletin is:

1. To alert employers and employees regarding the need to inspect suspension-type highway trailers to ensure that the trailers will support powered industrial trucks during loading and unloading operations; and
2. To provide a list of inspection check points for employers and employees to use in order to determine whether it is safe to use powered industrial trucks for loading and unloading such trailers.

Background

The Directorate of Safety Standards Programs brought to the attention of the Directorate of Technical Support the fact that workers engaged in the loading or unloading of suspension-type highway trailers may be at an increased risk of injury due to the inability of damaged trailers to support the weight of the powered industrial truck used to load or unload the trailer. These trailer designs present hazards not encountered with trailers of older, traditional designs. OSHA has received several reports of trailer collapse accidents in situations in which the employees attempted to enter a trailer and to load or unload that trailer with a powered industrial truck.

Technical Information

There are three trailer designs of primary concern: (1) the fiberglass-reinforced panel; (2) the sheet and post; and (3) the plate trailer.

These trailers are designed and manufactured

This TIB is not a new standard or regulation and it creates no new legal obligations. It is advisory in nature, informational in content, and is intended to assist employers in providing a safe and healthful workplace.

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in a manner similar to a suspension bridge with the weight of the floor and the load supported by the walls, which hang from the roof of the trailer. The roof of the trailer, in turn, is supported at the four corners of the trailer. The undercarriage of the trailer consists of a series of parallel rails that run laterally across the trailer. The rails are attached to the remainder of the trailer by a group of four to six rivets at each end of the rail.

These trailer designs were developed to decrease the weight of the trailer, thereby increasing the allowable weight of the load that the trailer can carry. The trailers can be identified by the absence of an I beam running fore and aft under the full length of the trailer floors.

Recommendations

Suspension-type trailers should be inspected before they are loaded or unloaded with a powered industrial truck. Any of the following types of damage to the trailer should be identified and docu-

mented. A determination should be made whether the trailer can or cannot be loaded or unloaded safely prior to using a powered industrial truck. In the event that the trailer cannot be loaded or unloaded safely with a powered industrial truck, an alternative means of loading or unloading must be used. If the integrity of the trailer cannot be assured and no other reasonable means exists to complete the operation, the trailer should be taken out of service.

Inspection Check Points

1. Examine the rear impact guard (the ICC bar). Damage to this guard may indicate the presence of other damage to the trailer, thereby decreasing the trailer's ability to support the weight of the load and the powered industrial truck used to load or unload the trailer. Also, when a trailer restraint is used, a damaged ICC bar may prevent the trailer restraint from effectively engaging, thus permitting the trailer to roll away from the dock.
2. Examine the front landing gear of the trailer. Damage to this part of the trailer could cause the trailer landing gear and the front of the trailer to collapse when the weight of the powered industrial truck is added to the weight of the trailer and the load being supported by the front landing gear.
3. Examine the cross members of the undercarriage for missing pieces, excessive corrosion, or permanent deformation. For example, deformation of the cross members caused by missing rivets at the ends of the cross members can indicate damage to the trailer floor. In such cases, the trailer may not support the weight of a powered industrial truck.
4. Examine the exterior sides of the trailer for tears or cuts of the skin that exceed 21 inches or that would affect more than one trailer side post.
5. Look for missing rivets, particularly near the bottom of the trailer. Damaged or missing rivets may indicate that the ability of the undercarriage to support the weight of the load and the powered industrial truck used to move the load has been compromised.
6. Look at the rear doors of the trailer. Damage to the rear doors of the trailer may indicate that the trailer was struck in the rear, thereby possibly causing other damage to the trailer and possibly creating a hazard when opening and closing doors.
7. Look at the hinges that support the rear doors. Damage to these hinges could indicate damage to the floor of the trailer or a shifting of the load during transit. Damage to the hinges could include broken or missing rivets, damage to other means of hinge attachment (e.g., welds), broken hinges, or missing hinge pins. Damage of this nature may compromise the ability of the trailer to support the weight of the powered industrial truck.
8. Examine the interior walls of the trailer for breaks, tears or other damage, particularly within two feet of the floor of the trailer. Tears or cuts in more than one post could adversely affect the ability of the trailer to support the weight of the load and the powered industrial truck being used to move the load. On sheet and post trailers, vertical posts (most commonly on 16" - 24" centers) should not be severed. A vertical post that is severed presents a hazard.
9. Look at the roof of the trailer. Damage to the roof of the trailer may indicate the mishandling of the load when the trailer was being loaded and unloaded. Such mishandling could produce other structural damage to the trailer that may be visually apparent. Damage to the roof structure of the trailer could allow trailer walls to fold in or out resulting in a floor collapse.
10. Examine the floor of the trailer; look for imperfections or abnormalities, including an excessively wavy appearance of the laminated floor, delamination of the floor, cracks, and/or missing pieces of flooring. When unloading the trailer, the powered industrial truck operator should continually check the condition of the newly exposed portion of the floor as the unloading proceeds. The powered industrial truck operator also should check for water stains on the floor, which may indicate that the floor has been damaged by water [see 29 CFR 1910.178 (m)(7)].

The existence of any one, or even several, of the above listed deficiencies does not necessarily render the trailer unsafe to enter with a powered in-

dustrial truck. However, such deficiencies are indications of possible serious damage, and the employer will need to exercise professional judgement to determine whether it is safe to use a powered industrial truck for loading and unloading the trailer.

Important Information on the Nature and Effect of Technical Information Bulletins

OSHA's Directorate of Technical Support (DTS) issues Technical Information Bulletins (TIBs) to provide information about occupational hazards and /or to provide information about noteworthy, innovative, or specialized procedures, practices and research that relate to occupational safety and health. DTS selects topics for TIBs from recognized scientific, industrial hygiene, labor, industry, engineering, and/or medical sources.

The *Occupational Safety and Health Act* requires employers to comply with hazard-specific safety and health standards. In addition, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm under Section 5(a)(1), the General Duty Clause of the Act. Employers can be cited for violating the General Duty Clause if there is a recognized hazard and they do not take appropriate steps to prevent or abate the hazard. However, the failure to implement TIB recommendations is not, in itself, a violation of the General Duty Clause. Citations can only be based on standards, regulations, and the General Duty Clause.

Further information about this bulletin may be obtained by contacting OSHA's Directorate of Technical Support at 202-693-2300