

ANSI MH30.3-2015
Revision of
ANSI MH30.3-2005



Vehicle Restraining Devices: Performance and Testing



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Vehicle Restraining Devices: Performance and Testing

Loading Dock Equipment Manufacturers (LODEM)

An Industry Group of MHI

Approved August 11, 2015

American National Standards Institute, Inc.

FOREWORD. This standard, which was developed under the American National Standards Institute (ANSI) Canvass method and approved by ANSI on August 11, 2015, represents suggested design practices and operational requirements for vehicle restraining devices. It was developed by MHI, along with the Loading Dock Equipment Manufacturers ("LODEM"), one of its Industry Groups, and is intended to provide useful information and guidance for owners, users, designers, purchasers or specifiers of material handling equipment or systems. It is advisory only and should only be regarded as a simple tool that its intended audience may or may not choose to follow, adopt, modify, or reject. A standard may be part of, but does not constitute a comprehensive safety program that cannot guard against pitfalls in operating, selecting and purchasing such a system, and should not be relied upon as such. Such a program should be developed by a qualified professional.

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The **Loading Dock Equipment Manufacturers** (LODEM) is comprised of companies that design and manufacture loading dock leveling devices in North America. This standard is the result of LODEM's recognition of the need to standardize performance, and design criteria for the proper utilization of dock leveling and vehicle restraining devices, and was formulated under MHI procedures approved by ANSI.

LODEM formed the MH30 Committee in 1990 after the American Society of Mechanical Engineers (ASME) submitted the American National Standard ANSI/ASME MH14.1-1984 and addenda 1a-1985 and 1b-1986 for withdrawal. These withdrawals were approved September 18, 1989.

This standard, which was originally approved by ANSI on December 16, 1993, and revised in 2000 and 2005, represents design, operating and testing practices and performance criteria that may be used in determining product utilization.

On the date of approval of this standard, LODEM consisted of the following member companies:

- 4Front Entrematic
- Blue Giant Equipment Corporation
- Bluff Manufacturing, Inc.
- Nova Technology
- Pentalift Equipment Corporation
- Rite-Hite Corporation
- Systems, Incorporated

Questions or suggestions for improvement regarding of this standard are welcome. Suggestions should be sent to: MH30.3 Committee, MHI, 8720 Red Oak Blvd., Suite 201, Charlotte, NC 28217; standards@mhi.org.

Vehicle Restraining Devices: Performance and Testing

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Vehicle Restraining Devices: Performance and Testing

1 Purpose and Scope

1.1 Purpose

This Standard defines performance and testing requirements with regard to design, use, and maintenance of vehicle restraining devices. The purposes of this Standard are to provide a uniform means of comparison, to improve user confidence and knowledge, and to define requirements for vehicle restraining devices.

1.2 Equipment Covered

A vehicle restraining device is a manufactured structure designed to interface between a loading dock and a transport vehicle. It is intended to facilitate effective and efficient freight transfers by limiting vehicle creep and preventing unscheduled departure. Vehicle restraining devices commonly incorporate a communication light system between the dock worker on the inside of the building and the truck driver on the outside. The two types of vehicle restraining devices within the scope of this Standard are described in the following clauses.

- a) **rear impact guard (RIG) type:** this is the most common type of vehicle restraint. It is a vehicle restraint that engages the RIG of a transport vehicle, inhibiting uncontrolled separation of the vehicle from the dock face;

NOTE – these are also known as “ICC bar restraints.”

- b) **wheel dependent type:** A vehicle restraint that engages one or more wheels of a transport vehicle, inhibiting uncontrolled separation of the vehicle from the dock face.

Vehicle restraining devices are further classified according to manual vs. powered operations:

- c) **manually operated:** a vehicle restraining device that is both engaged and released manually;
- d) **power operated:** a vehicle restraining device that is both engaged and released through a powered means, either with a push-button or automatic operation.

2 Other Applicable Specifications

Parts of this standard refer to certain portions of other applicable specifications or standards. The publications of the following organizations are mentioned in the text:

ANSI MH30.1-2015, *Performance and Testing Requirements for Dock Leveling Devices*

ANSI MH30.2-2015, *Portable Dock Leveling Devices: Performance and Testing*

ANSI Z535.1, *Safety Color Code*

ANSI Z535.4, *Product Safety Signs and Labels*

NFPA 70, *National Electrical Code*, National Fire Protection Association (www.nfpa.org)

National Electrical Manufacturers Association (www.nema.org)

ASTM International (www.astm.org)

American Welding Society (www.aws.org) standards for all welded connections

Federal Motor Vehicle Safety Standards (www.nhsta.gov/cars/rules/import/FMVSS/)