

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

Page 1 of 7

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Amend Section 3649 to read:

§3649. Definitions.

High-Lift Truck. An industrial truck equipped with a power-operated lifting device used for the transportation, tiering and positioning of loads. As used in this definition, high-lift trucks include riderless high-lift straddle trucks where the employee operates the truck using a moveable steering arm and control handle while standing or walking behind the truck. (Excluded are front-end loaders defined in Section 3666 and tiering conveyors as defined in Article 32.)

Hydrogen Powered Industrial Truck (HPIT). A type CGH electric industrial truck powered by a hydrogen fuel cell system.

Self-Propelled Implement. A self-propelled machine on which the implement is an integral part, such as, but not limited to, grain and bean combines, beet harvesters, corn and cotton pickers, hay balers and sprayers.

Type Designation. A system for identifying types of powered industrial trucks as provided in NFPA 505-2018, Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations.

Type Designation CGH. A compressed hydrogen gas powered unit utilizing a fuel cell that has minimum acceptable safeguards against inherent fire and electrical shock hazards.

Type Designation E. An electrically powered unit that has minimum acceptable safeguards against inherent fire and electrical shock hazards.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Amend Section 3650 to read:

§3650. Industrial Trucks. General.

(a) Industrial trucks manufactured after March 15, 2009, shall be labeled as meeting the design and construction requirements of the following applicable standards which are hereby incorporated by reference:

ANSI/ITSDF B56.1 - 2005, Safety Standard for Low Lift and High Lift Trucks

ANSI/ITSDF B56.5 - 2005, Safety Standard for Guided Industrial Vehicles and Automated Functions of Manned Industrial Vehicles

ANSI/ITSDF B56.6 - 2005, Safety Standard for Rough Terrain Forklift Trucks

ANSI/ITSDF B56.8 - 2006, Safety Standard for Personnel and Burden Carriers

ANSI/ITSDF B56.9 - 2007, Safety Standard for Operator Controlled Industrial Tow Tractors

ANSI/ITSDF B56.10 - 2006, Safety Standard for Manually Propelled High Lift Industrial Trucks

NFPA 505 - 2006, Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations

UL 583 - 1996, Standard for Safety, Electric-Battery-Powered Industrial Trucks

UL 558 - 1996, Standard for Safety, Industrial Trucks, Internal Combustion Engine-Powered

(b)(1) All low lift and high lift trucks manufactured after June 26, 1998, through March 15, 2009 shall be labeled as meeting either the design and construction requirements of Part III, ASME B56.1-1993, Safety Standard for Low Lift and High Lift Trucks or Part III of the ANSI/ITSDF B56.1-2005 standard. All low lift and high lift trucks manufactured on or before June 26, 1998, shall be labeled as meeting either the design and construction requirements of the ASME standard indicated above or Part II, of the ANSI B56.1-1975 standard.

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

(2) Except as provided in subsection (b)(1), industrial trucks manufactured after September 1, 1991 through March 1, 1999 shall have affixed a legible tag or label stating compliance with the following applicable standards or those listed in subsection (b)(3):

NFPA 505-1987, formerly ANSI B56.2-1987, for powered industrial trucks,

UL 583-1984, formerly ANSI B56.3-1977, for electric-battery-powered industrial trucks,

UL 558-1984, formerly ANSI B56.4-1977, for internal combustion engine powered industrial trucks,

ANSI/ASME B56.5-1988 for guided industrial vehicles,

ANSI/ASME B56.6-1987 for rough terrain forklift trucks,

ANSI/ASME B56.7-1987 for industrial crane trucks,

ANSI/ASME B56.8-1988 for personnel and burden carriers,

ANSI/ASME B56.9-1987 for operator controlled industrial tow tractors.

(3) Except as provided in subsections (a) and (b)(1), industrial trucks manufactured after March 1, 1999 shall have affixed a legible tag or label stating compliance with the following applicable standards:

NFPA 505-1987, formerly ANSI B56.2-1978, for powered industrial trucks,

UL 583-1991, for electric-battery-powered industrial trucks,

UL 558-1991, for internal combustion engine powered industrial trucks,

ASME B56.5-1993, for guided industrial vehicles and automated functions of manned industrial vehicles,

ASME B56.6-1992, for rough terrain forklift trucks,

ANSI/ASME B56.7-1987, for industrial crane trucks,

ASME B56.8-1993, for personnel and burden carriers,

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

ASME B56.9-1992, for operator controlled industrial tow tractors.

(4) All hydrogen Powered Industrial Trucks (HPIT) shall be labeled as meeting the applicable requirements in subsections (a), (b)(1), (b)(2), and (b)(3), and shall also be labeled as meeting the applicable design and construction requirements of the following standards which are hereby incorporated by reference:

CSA HPIT 1-2015, Compressed hydrogen powered industrial truck on-board fuel storage and handling components

NFPA 505-2018, Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations

(45) All name plates and model number, type designation and load capacity markings on industrial trucks, shall be maintained in a legible condition by the employer.

(f) Truck Conversion.

(1) Industrial trucks originally approved for the use of gasoline for fuel may be converted to use liquefied petroleum gas fuel provided the complete conversion results in a truck which embodies the features specified for LP or LPS designated trucks as defined in Chapter 1-3, of NFPA 505-1987, which is herein incorporated by reference. Such conversion equipment shall be approved.

(+A) When a conversion kit is installed, the original type designation shall be removed or obliterated and replaced with a durable, corrosion-resistant plate permanently mounted on the truck indicating the type designation of the converted truck.

(2) Industrial trucks originally approved for the use of electric batteries (Type E designated truck) may be converted to use compressed gaseous hydrogen fuel cells (Type CGH designated HPIT) provided:

(A) The modified truck meets the requirements for the Type CGH designated trucks as provided in NFPA 505-2018 and CSA HPIT 1-2015.

(B) The conversion meets the requirements of CSA HPIT 1-2015.

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

(C) The conversion is approved by the truck manufacturer.

(h) Only industrial trucks approved for the exposure may be operated in atmospheres containing hazardous quantities of combustible dusts and ignitable fibers. Approval and area designation shall be based on NFPA 505-~~1982~~2018 with appropriate labeling.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

DRAFT

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Amend Section 3663 to read:

§3663. Maintenance of Industrial Trucks.

(h) Truck Conversion.

(1) Industrial trucks originally approved for the use of gasoline for fuel may be converted to use liquefied petroleum gas fuel provided the complete conversion meets the requirements of section 3650(f)(1) of these Safety Orders results in a truck which embodies the features specified for LP or LPG designated trucks. Such conversion equipment shall be approved.

(2) Industrial trucks originally approved for the use of electric batteries (Type E designated truck) may be converted to use compressed gaseous hydrogen fuel cells (Type CGH designated truck) provided the complete conversion meets the requirements of section 3650(f)(2) of these Safety Orders.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

Page 7 of 7

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Amend Section 3669 to read:

§3669. ~~Operating Rules~~Fueling of Industrial Trucks.

(a) Hydrogen Powered Industrial Trucks (HPIT)

(1) A durable and legible sign displaying the dispenser operating instructions shall be posted on every hydrogen fuel dispenser. Such sign shall also indicate the location of the dispenser emergency stop required by CSA HPIT 2-2017, Dispensing systems and components for fueling hydrogen powered industrial trucks, which is hereby incorporated by reference.

(2) HPITs shall be fueled outside of buildings or in areas specifically approved for fueling of an industrial truck using hydrogen as required in Section 309 of the 2016 California Fire Code.

(3) The fueling of HPIT shall be performed:

(A) Using a hydrogen fueling station which meets the requirements of CSA HPIT 2-2017.

(B) Following the fueling protocol provided in SAE J2601-3 (2013 edition), Fueling Protocol for Gaseous Hydrogen Powered Industrial Trucks, which is hereby incorporated by reference.

(C) Following the operating instructions and sign required by (a)(1).

(4) Smoking or open flames shall not be permitted in the fueling area.

(5) During fueling of HPITs, the attendant shall monitor the fueling operation from the fueling station.

(6) HPITs shall remain powered off during fueling.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.