



Forklifts Used as Personnel Lifts

The use of material lift forklifts to elevate personnel has been a common practice in many workplaces. Many employers have found it simpler and less expensive to keep an approved forklift safety cage on hand, and attach it to a forklift for tasks such as changing lights, cleaning overhead surfaces, occasional stock picking or working on elevated parts of machinery and equipment. The only alternative was to own, rent or obtain a scissor lift or other aerial platform for those occasional elevated tasks. However, unless forklifts are specifically designed and approved for that purpose and contain order pickers with railings or, fall protection systems designed to elevate people, alternative methods should be considered.

In the past, the Occupational Safety and Health Standards for General Industry, Title 29 CFR Part 1910.178 Powered Industrial Trucks, Truck Operations Paragraph (m) (12), used to reference lifting personnel. However, business owners should know that on June 2, 2003, a technical amendment was published in the Federal Register that removed and reserved all of paragraph 1910.178 (m) (12), including its subordinate paragraphs 1910.178 (m) (12) (i) through 1910.178(m (12) (iii).

As a result, the ANSI/ITSDF B-56.1 consensus standard has become the only guidance for elevating personnel with forklifts. OSHA is issuing General Duty Clause PL 91-596 5 (a) (1) citations, referencing the ANSI requirements, if they find employers misusing or using improper personnel platform lifts. In most cases, these citations involve homemade cages, inadequate railings, fall protection, or failure to securely attach the platform to the carriage and personnel climbing off the platform floor. Essentially, these are violations of safe practices, but not necessarily based solely on the use of a cage itself. To prevent accidents, injuries and potential OSHA Citations, documented training and education of forklift operators, and personnel being lifted, should be conducted.

The Guidelines

A free copy of the ANSI/ITSDF B-56.1 – 2009 may be downloaded at www.itsdf.org/pB56.asp. At the very minimum as a precaution, business owners who operate forklifts to elevate personnel should download a copy, and ensure they are following the guidelines of Section 4.17 Elevating Personnel, and 4.37 Platforms; Elevating.

However, there are still other caveats. First, if the manufacturer's manual prohibits lifting personnel, then that requirement takes precedence, and lifting workers is not allowed. The machine may not meet the Manufacturer Guidelines, Part III, specified in the ANSI/ITSDF Standard.

Second, you should review OSHA's Standard Interpretation of March 30, 2004, for 1910.178 (a) (4).¹

Question: Does 29 CFR 1910.178(a)(4) require an employer to obtain prior written approval from the original equipment manufacturer for the attachment of a work platform that meets the applicable requirements as outlined in paragraphs 4.17.2, 4.17.3, and 7.36.3 of ASME B56.1-2000?

Answer: Yes, written approval from the manufacturer of a powered industrial truck is required for modifications and additions if the modifications and additions affect the capacity and safe operation of the truck. However, please be aware that OSHA would consider the lack of manufacturer's approval to be a de minimis (minor) violation if the employer has obtained written approval from a qualified Registered Professional Engineer after

receiving no response or a negative response from the powered industrial truck manufacturer. If the manufacturer's response was negative, then the engineer, prior to granting approval for the modification or addition, would need to perform a safety analysis and address all safety and/or structural issues contained in the manufacturer's disapproval.

Even where the addition of a work platform to a powered industrial truck is permitted under §1910.178(a)(4) or the de minimis policy stated above, employers must also address the fall hazards that result from the use of elevated platforms. OSHA has proposed revisions to Subpart D of 29 CFR Part 1910 that include, in a new section §1910.31, requirements for mobile elevating work platforms, mobile ladder stands, and powered industrial truck platforms. (See 55 *FR* 13396, April 10, 1990, and 68 *FR* 23530, May 2, 2003.) Until a final rule is promulgated, an employer's failure to prevent or correct, to the extent feasible, fall hazards from elevated work platforms might be citable as a violation of Section 5(a)(1) of the OSHA Act. OSHA's evaluation of the existence of a serious, recognized hazard and the availability of feasible means of abatement would include consideration of the relevant provisions of the ASME B56.1-2000 standard.

The pertinent OSHA Standard paragraphs are:

1910.178(a)(4) Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without manufacturers prior written approval. Capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly.

1910.178(a)(5) If the truck is equipped with front-end attachments other than factory installed attachments, the user shall request that the truck be marked to identify the attachments and show the approximate weight of the truck and attachment combination at maximum elevation with load laterally centered.”

While one would believe that a personnel safety cage should be a front-end attachment, falling under (a) (5), requiring only that “the user shall request,” OSHA's reply appears to place the burden of proof on the employer to determine “if the modifications and/or additions affect the capacity and safe operation of the truck.” Their use of the word “if” implies the employer should have written documentation from the manufacturer that the attachment does not affect the capacity or safe operation of the truck. If the manufacturer does not respond, and the employer has written approval from a Professional Engineer, then they would only be subject to a de minimis violation. This can be a lengthy process, and the employer may still face the possibility of a violation, no matter how minor.

Additionally, The Fluid Power Safety Institute warns of other potential technical and maintenance issues, problems and exposures. They discuss several things that can still go wrong, even if you follow the regulations, which can be viewed here: http://www.fluidpowersafety.com/fpsi_alert-39.html

Preventing Forklift Fatalities and Injuries

According to OSHA and NIOSH, about 100 employees are killed and 95,000 injured every year while operating forklifts in all industries. At least 9 % of the fatalities are due to falls from forklifts. So what can employers do to take steps to prevent this from happening at the work site?

Acadia Insurance recommends adopting the advice that OSHA gives regarding the use of Rough Terrain Forklifts on construction sites as a Best Practice:

Before using a rough terrain forklift truck as a work platform, the employer would normally have to consider the feasibility of equipment such as scaffolds, scissor lifts, aerial lifts and ladders. The use of forklifts would be permitted only after determining that such alternatives were infeasible.

The kinds of efforts required of a contractor to determine that there are no other practical options would be those necessary to make an informed judgment about whether equipment such as scaffolds, scissor lifts, aerial lifts and ladders could be used.

Fortunately, there are now many new types of aerial lifts and manlifts on the market. These include small, compact ones that will elevate a single person. Integrated personnel lifts contain additional safety features that are not included on forklifts as forklifts are intended for material handling, not people. Employers are advised to take a look at the new aerial work platforms and manlift products that are now available, from your equipment dealer or equipment rental center. Many small, convenient and cost effective platforms are being manufactured. These provide practical alternatives, which are safer than the use of a forklift.

Acadia Insurance strongly recommends the use of specialized lifts, those designed and approved to lift personnel, as the preferred method of elevating workers who must perform work at heights. Another benefit, in addition to eliminating the use of material (fork) lifts, to lift personnel, in many cases, manlifts can also replace the use of ladders, and provide a sturdier, roomier and safer work platform, than a ladder.

Where other methods are infeasible, OSHA's Forklift eTool does provide the following fall guidance for pedestrians and passengers²:

Passengers should not be allowed on forklifts unless the forklift is specifically designed to accommodate passengers.

Potential Hazards:

Danger of falling

Specialized platform for lifting coworker.
Note: There is a guard on the back of the platform to keep the person in the platform and protect the worker's arms and hands.

Requirements and Recommended Practices:

The OSHA standard [[29 CFR 1910.178\(m\)\(3\)](#)] states that unauthorized personnel are prohibited from riding on a forklift. If riders are authorized, a safe place must be provided.

Unless authorized, never carry passengers -- NO RIDERS.

Use only specialized equipment designed to raise personnel..

Never transport employees on a platform. Employees can only be hoisted up and down.

Never transport employees on the forks.

Additional tips include:

- Never use a forklift to elevate workers standing on the forks, or a pallet.



Photo courtesy of OSHA

- Use only an approved lifting cage, with a guard on the back of the platform
- The platform must have rails, chains, or fall protection device for the person on the platform.
- Always secure the platform to the carriage or forks.
- Never elevate a worker on a platform unless the vehicle is directly below the work area.
- Never drive with the work platform elevated.
- The operator must always remain at the controls (and wear a hard hat if there's any chance of falling tools or materials).
- Set out cones, or other traffic control measures, to divert and/or warn other powered industrial trucks and pedestrians.
- Study and comply with all applicable guidelines of ANSI/ITSDF B-56.1 – 2009, particularly Section 4-17 Elevating Personnel

¹http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=2487

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²<http://www.osha.gov/dcsp/products/etools/pit/workplacehazards/pedestriantraffic.html>

- John Lysy, CSP, CFPS, ARM, CTSP, CLCS
Senior Loss Control Consultant
Acadia Insurance Company