

Personnel Work Platform Safety

A review of the resources designed to ensure proper use of platforms on telescopic handlers.

Editor's Note: In an effort to clarify some of the grey areas of finding the right regulations, rules, and instructions to properly use work platforms on telescopic handlers, David Baxter, director of marketing for a market products and support, JLG Industries, McConnellsburg, Pa., presented "Elevating Personnel with Telehandlers: An Overview of Standards and Requirements" at the 2007 SAF-T Conference in Long Beach, Calif.

His presentation and the following adapted article are designed to arm attendees and readers with the resources to find, read, and become familiar with the appropriate standards and regulations associated with using work platforms on telehandlers. It is not intended to replace training or provide interpretation of the standards.

The complete ANSI/ITSDF B56.6-2005 standard can be found at www.itsdf.org/pB56.asp, and the OSHA regulations and interpretation information pertaining to work platforms on telehandlers can be found online at www.osha.gov.

The use of work platforms on telescopic material handlers has become commonplace on many construction sites. Both OSHA and ANSI have regulations that apply to the use of forklifts, and it's important to note which specifically address the safe use, design, and machine requirements associated with utilizing work platforms on telescopic handlers.

The following is a review of the regulations and standards, a summary of the most commonly asked questions, and an overview of the resources available to forklift owners and operators.

Safe use under ANSI

ANSI/ITSDF B56.6-2005 is the safety standard that governs the use of rough-terrain forklifts and telescopic handlers. It addresses the use of work platforms in a few areas: Section 5.15 talks about elevating personnel, Section 5.16 talks about the operator qualifications, and Section 8.24 addresses platforms for elevating personnel.

All of these standards cover the user requirements, including rental companies and dealers, the platform design requirements, and the machine requirements. The standard also covers the training requirements for platform occupants and the operator of the telescopic handler, as well as the proper types of fall protection as defined by the local authority, the jobsite, and the equipment manufacturer.

Some general safety items covered in ANSI/ITSDF B56.6-2005 discuss how to best use a personnel work platform with a telescopic material handler, which has a lot of consistencies with the ANSI A92.5-2006 Boom-Supported Elevating Work Platform standard.

ANSI B56.6 says that telehandlers are not to be used to lift personnel unless there is no other practical option.

Key areas include:

- t Personal protection equipment must always be worn as required;
- t Machines must never be driven with occupants elevated in the platform;
- t Platform occupants must be alerted prior to moving the platform;
- t Overhead protection for occupants as operating conditions require;
- t Work area shall be defined to warn others of work by elevated personnel;
- t Path of platform travel must be free of hazards;
- t Personnel are to maintain firm footing on the platform floor – methods employed for achieving additional height are prohibited; and
- t Telehandlers are not to be used to lift personnel unless there is no other practical option.

The last point is one of the most important requirements: Telehandlers are not to be used to lift personnel unless there is no other practical option, which is an area where interpretation, common sense, and proper training all come into place. Obviously, there are a lot of different types of equipment available out in the marketplace, and selecting the best piece of equipment for the job is paramount to ensuring a safe work environment. Although it is a bit of a grey area, in instances where there is no other practical option, a telescopic handler is an appropriate means to lift personnel if it is used correctly.

ANSI also provides design requirements for personnel work platforms. While most of the platform design requirements rest on the manufacturer to certify that a platform is ANSI compliant, the telehandler user must ensure he is using an appropriate platform. For example, ANSI B56.6 says that a telehandler platform cannot exceed 10 inches beyond the width of the machine in both directions, so if you have an 8-foot-wide machine, the platform cannot be more than 9'8" wide. Although some platforms on the market are 12 or 16 feet wide and OSHA-compliant in the way they are constructed, they do not meet the ANSI requirement per B56.6.

Other requirements include platform floor criteria; toe plates; pinch point protection; criteria for mounting or attaching the platform; handrail presence, height, and strength requirements; lanyard anchorage points; and structural safety factors. It also notes that modifications made to the platform that are detrimental to its safe use are prohibited.

Some manufacturers do not allow the use of personnel work platforms on their telescopic handlers while others do, so users need to make sure they are in compliance with the manufacturer. If a manufacturer does not say if they allow work platforms on telehandlers, then the users need to obtain specific permission to do so.

There are two types of platforms on the market. First is a fork-mounted platform where the platform has pockets that mount over the forks and can be secured so the platform cannot slip off. The other is a quick-switch coupler where the forks are removed from the telescopic handler, and the platform mounts directly to the coupler. In order to use a platform, it must be securely attached to the lifting carriage or forks and the lifting mechanism must operate smoothly.

Another machine requirement is that lifting personnel when the machine is on a side-slope is prohibited unless it can be leveled. While some telehandlers have frame-leveling capabilities, others do not. If the machine does not, it cannot be used to lift personnel. Other select parts of the standard state that the machine must rest on firm footing, and the drive controls in the cab must be in neutral with the parking brake set if personnel is going to be lifted.

OSHA regulation requirements

Another authority on the topic is OSHA, which often complements the ANSI standard. However, if there is any conflict between the different agencies providing guidance, it is recommended that the user follows the requirement that is more stringent.

The OSHA regulations that apply to lifting personnel with telescopic handlers are 29 CFR 1926.451, 29 CFR 1926.452, and 29 CFR 1926.454. Additionally, OSHA 29 CFR 1926.602 (c) addresses the use of lifting and hauling equipment, and OSHA 29 CFR 1910.178 governs the use of powered industrial trucks. OSHA regulations cover the capacity for what a platform can and can't accomplish with a telescopic handler; the proper ways it can be constructed; access; use; fall protection; and training.

A few items of note from the OSHA 1926.451 regulation is that front-end loaders and other similar pieces of equipment shall not be used to support scaffold platforms unless they are specifically designed by the

manufacturer for such use. OSHA agrees with ANSI that unless the manufacturer approves it, you cannot use it. Additionally, the entire platform needs to be attached to the forks, and the telehandler cannot be moved horizontally or driven while the platform is occupied.

Applicable OSHA machine regulations cover the design of all industrial trucks used by an employer. It requires machines to meet the ANSI B56.1-1969 Safety Standards for Powered Industrial Trucks. In OSHA 1910.178 (1) (i) Powered Industrial Truck, the regulation calls for the employer to ensure the operator of the powered industrial truck is competent to operate a powered industrial truck safely. This includes training program implementation, training program content, refresher training and evaluation, avoidance of duplicative training, and certification.

Another key item is in OSHA 29 CFR 1910.178 (m) Truck Operations, which defines an unattended machine as one whose operator is more than 25 feet away while in sight of the machine or one where the machine is not in his/her view. When you have a person working at elevation, it's critical that the truck operator is on the machine. There is really no reason for them to leave when the person is elevated in the platform.

Frequently asked questions

Through ANSI, OSHA, and manufacturer's instructions in the manuals, the majority of situations in which work platforms are used are covered. However, questions arise as different innovations come out. One common question is what is the method for shutting down power to the machine by the platform occupant? Most platforms do not have controls; rather the controls are provided in the cab, so there is no requirement to shut off power to the machine by the platform occupant unless there are controls in the platform with an emergency shutdown switch.

Additionally, work platforms with controls that enable the platform occupant to drive the machine fall under the ANSI A92.5 standard for boom-supported aerial work platforms.

One example is the JLG Transformer, which has a set of controls in the platform that allowed the operator to drive the machine. This machine meets two different standards: ANSI B56.6 and ANSI A92.5. Machines with lift controls in the platform that do not permit the operator to drive only need to meet the requirements of ANSI B56.6.

Another point is an OSHA-compliant platform does not necessarily mean that it is ANSI B56.6 compliant. If the user plans to use a work platform on a telehandler, both sets of requirements need to be met.

Finally, if the manufacturer's operator manual, machine labels, or other formal communication states the machine is not to be used for elevating personnel, the user is prohibited from doing so. If the operator's manual is silent on the use of elevating personnel, it is the user's obligation to contact the manufacturer for approval prior to using a personnel work platform. Also, if the manufacturer is no longer in business, a professional engineer needs to be consulted to determine if the machine is suitable for use with respect to elevating personnel.

Resource review

The applicable ANSI standard and OSHA regulations for elevating personnel on work platforms can be found online at www.itsdf.org/pB56.asp and www.osha.gov. If there are areas that require clarification or further



The fork-mounted platform is one of two different types of platforms.

Who's Who in Work Platforms

| Manufacturer | Position on Work Platforms | Includes Work Platform in Attachment Offerings | Additional Comments |
|----------------------|---|--|--|
| Bobcat | Does not approve the use of work platforms | No | N/A |
| Caterpillar | Allows the use of work platforms on TL- and B-Series machines with three or more boom sections | Yes | The Cat B-Series only allows Cat-built controlled platforms; the TL-Series allows fork-mounted platforms. Caterpillar strongly encourages its customers to only use platforms that comply with ANSI B56.6. The company advises end users that work platforms are a good solution if personnel only needs to be elevated occasionally. If the requirement is more frequent, an aerial work platform is a better alternative. |
| Gehl | Allows the use of work platforms on any Gehl telehandler equipped with the optional Gehl Personnel Work Platform System (PWP), which has been offered since 2001 on machines with spring-applied parking brakes and powershift transmissions and includes a shut-off control at the platform. | Yes | Gehl does not require owners to purchase its work platform. However, Gehl does require the platform to meet the requirements listed in ANSI B56.6, Section 8.24, which Gehl lists in the Operator's Manual for all machines equipped with its PWP System. |
| Genie | Does not approve the use of work platforms | No | N/A |
| Gradall | Allows the use of work platforms on all current telehandler models, including Gradall models G6-42P, 534D9-45, 534D10-45, and 544D10-55 | Yes | JLG strongly encourages its customers to only use platforms that comply with ANSI B56.6. The company advises end users that work platforms are a good solution if you only need to elevate personnel occasionally on a jobsite. If the requirement is more frequent than that, an aerial work platform is a better alternative. |
| Volvo/Ingersoll Rand | Does not approve the use of work platforms | No | N/A |
| JLG | Allows the use of work platforms only on JLG telehandler models G5-19A, G6-23A, G6-42A, G9-43A, G10-55A, and G12-55A | Yes | JLG strongly encourages its customers to only use platforms that comply with ANSI B56.6. The company advises end users that work platforms are a good solution if you only need to elevate personnel occasionally on a jobsite. If the requirement is more frequent than that, an aerial work platform is a better alternative. |
| Lull | Allows the use of work platforms on all current telehandler models, including Lull models 644E-42, 944E-42, 1044C-54 Series II | Yes | JLG strongly encourages its customers to only use platforms that comply with ANSI B56.6. The company advises end users that work platforms are a good solution if you only need to elevate personnel occasionally on a jobsite. If the requirement is more frequent than that, an aerial work platform is a better alternative. |
| Manitou | Allows use of work platforms only on Manitou telehandler models MT6034, MT6642, MT8044, MRT1432, and MRT2150 | Yes | When using work platforms with Manitou's MRT Series machines, they must be equipped with additional safety systems and/or platform predisposition. |
| MEC | See additional comments | No | MEC currently does not offer work platforms on telescopic handlers and maintains a neutral position on this topic. MEC recognizes the potential for additional utility and value provided by such systems and would not be adverse to developing such a system if it had a significant customer demand for this option. Currently, the company has elected to develop a complete self-propelled boom lift line rather than develop a system that allows a telehandler to be converted to a boom lift. It is MEC's opinion that this option provides limited functionality for simple access tasks but falls short in displacing the need for boom lifts in a significant amount of applications. |
| Mustang | Allows the use of work platforms on any Mustang telehandler equipped with the optional Mustang Work Platform System (WPS), which includes a shut-off control at the platform. | Yes | Mustang does not require owners to purchase its work platform. However, Mustang does require the platform to meet the requirements listed in ANSI (or ASME B56.6, Section 8.24, which Mustang lists in the Operator's Manual for all machines equipped with its WPS. |
| Pettibone | Does not approve the use of work platforms | No | Pettibone does not provide a load chart for using work platforms. Vehicles manufactured by Pettibone shall not be used to elevate personnel unless there is no other practical option. If one of its vehicles must be used to elevate personnel, only an approved work platform can be used. When selecting and using a work platform, the following precautions must be taken: Consult ASME/ITSDF B56.6 and the applicable OSHA regulations for both platform design requirements and safety precautions. |
| SkyTrak | Allows the use of work platforms on all telehandlers, including SkyTrak models 6036, 6042, 8042, 10042, and 10054 | Yes | JLG strongly encourages its customers to only use platforms that comply with ANSI B56.6. The company advises end users that work platforms are a good solution if you only need to elevate personnel occasionally on a jobsite. If the requirement is more frequent than that, an aerial work platform is a better alternative. |
| Xtreme Manufacturing | Allows the use of work platforms on telehandlers above 7,000-pound capacity, including Xtreme models XRM737, XRM742, XRM842, XRM945, XRM1045, XRM1145, XRM1154, XRM1245, and XRM1254, and Dieci models XRM8.880 and XRM1068 | Only for Dieci rotating boom telehandler models XRM8.880 and XRM1068 | Vehicles manufactured by Xtreme Manufacturing shall not be used to elevate personnel unless there is no other practical option. If one of its vehicles must be used to lift people, precautions to protect personnel shall be in accordance to the current ANSI/ITSDF B56.6 standard. |
| ZoomBoom (Carelift) | Allows the use of work platforms on telehandlers above 6,000-pound capacity, including ZoomBoom models ZB6042, ZB8044, ZB10044, ZB10056, ZB20032, ZB20044, and ZB32032 | No; Refers dealers/customers to an approved work platform manufacturer | Only approved work platforms are permitted to be used on the entire range of ZoomBoom products. |

Editor's Note: Lift and Access requested information from several North American telescopic handler manufacturers for their position on elevating personnel with work platforms. The manufacturer's instructions can go over and above the requirements of the standards and regulations, so it's important to always become familiar with the specifics of each manufacturer's machine.

interpretation, owners and users can submit questions to committees for both governing bodies and ask for clarification on areas that might present themselves from unique jobsites.

It's also important to remember that the manufacturer's instructions can go over and above the requirements of the standards and regulations. Always become familiar with the specifics of each manufacturer's ma-

chine through training, reading the operator's manual and instructions, and obtaining proper approvals for areas that might not be addressed.

The proper use of any lift requires knowledge. It's irresponsible not to become as knowledgeable as you can about the equipment, the standards, and the proper use as it relates to training, fall protection, and compliance. ■