

LIFTING TECHNOLOGIES LLC



Use and Safety Handbook

for Forklift Truck Work Platform

Featuring the

QUICK CLAW

Automatic Attach & Release Safety System

Model _____

Serial Number _____

GENERAL

All procedures contained in this handbook are based on the use of the **Lifting Technologies LLC** Powered Industrial Forklift Truck Personnel Platform (hereinafter called the LT Forklift Truck Work Platform, or the Work Platform), under proper operating conditions, with a Powered Industrial Forklift Truck (hereinafter called forklift truck according to the applicable OSHA proposed rules and ANSI/ITSDF standards excerpted herein.

A thorough knowledge of the operating characteristics and limitations of the forklift truck and the Work Platform is the first requirement for any user, regardless of his or her prior experience with similar types of equipment.

Important information is posted on the Data Plates located below the guardrail of the Work Platform. They contain the Work Platform's serial number, gross weight, maximum occupancy, **MAXIMUM RATED LOAD CAPACITY**, and the minimum forklift truck capacity. Other important information and/ or warnings may be posted on other parts of the Work Platform.

DO NOT deface or cover this information.

REMEMBER:

Most accidents involving machine operation are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. Improper operation is dangerous and could result in injury or death.

Allow only those authorized and qualified personnel to use the Work Platform who have demonstrated that they understand the proper procedures and use of the Work Platform.

- ALWAYS inspect the Work Platform for deficiencies before each use.
- ALWAYS test all forklift truck controls and other devices for proper operation.
* If any equipment is not operating properly, do not operate truck until repairs have been made.
- NEVER exceed the rated capacity of either the Work Platform or the forklift truck.
- NEVER permit anyone to stand under or pass beneath the Work Platform.
- NEVER touch, lean on, or reach through the forklift truck mast or permit others to do so.

All modifications or repair to the Work Platform must be performed by **Lifting Technologies LLC** personnel. **Lifting Technologies LLC** cannot be held responsible for any unauthorized modification or repair to the Work Platform.

If damage occurs during use, stop work immediately and move away from any dangerous situation to safety. The **Lifting Technologies LLC** Work Platform is intended only for hoisting personnel and their tools to a work area. The combined weight of personnel and tools **MUST NOT** exceed the rated load capacity as posted on the Data Plates.

The **Lifting Technologies LLC** Work Platform is designed for your safety. **DO NOT RISK YOUR LIFE** by using the Work Platform **WITH AN UNQUALIFIED FORKLIFT TRUCK OPERATOR**.













Because safety of personnel and proper use of the Work Platform are of primary concern, WARNINGS are inserted throughout this handbook. A WARNING is defined as follows: *if not correctly followed, could result in injury or death to personnel or, if not strictly adhered to, could cause damage to, or destruction of, equipment.*

Some general WARNINGS are listed as DO's and DO NOTs; specific WARNINGS are listed on page 23 of this handbook.

DO. . .

- ☰ Do check initially that the fork thickness at the heel is within the range of the QUICK CLAW device under the Work Platform. This range is found on the Data Plate located on the side of the QUICK CLAW.
- ☰ Do visually check the engagement of the **QUICK CLAW** cam to the bottom of the forks.
- ☰ Do wear a full body harness when occupying the Work Platform with the lanyard attached to the full-perimeter inner grab rail of the Work Platform.
 - Any part of this inner grab rail provides acceptable fall arrest system anchorage, which is certified capable of withstanding, without failure, a drop test of 440 lbs. free-falling a distance of 4 feet.
- ☰ Do attach security chains to load backrest extension.
- ☰ Do wear a hard hat.
- ☰ Do perform a complete inspection of the Work Platform before each use.
- ☰ Do be aware of any clearances required before initiating any forklift function.
 - EXAMPLE: OSHA requires a MINIMUM clearance of 10 feet from any live electrical line up to 50 KV.
- ☰ Do understand all procedures before using the Work Platform.
- ☰ Do keep forks clean.
- ☰ Do place the forklift truck transmission in neutral and apply the parking brake when lifting personnel.
- ☰ Do lift only when the forklift truck is positioned on a firm level surface.
- ☰ Do keep the Work Platform gate closed during operation.
- ☰ Do use extreme caution at all times when using the Work Platform.

DO NOT . . .

-  Do not use the Work Platform without first having the forklift truck inspected by a qualified inspector.
-  Do not use a defective or damage forklift truck.
-  Do not use a defective or damage Work Platform.
-  Do not breach the required clearance from a live electrical line.
-  Do not permit unauthorized personnel to use Work Platform.
-  Do not permit persons to use this Work Platform who are not familiar with this handbook and the applicable OSHA and ANSI/ITSDF regulations.
-  Do not attach your body harness lanyard to an adjacent structure when occupying the Work Platform.
-  Do not attach your body harness lanyard to any part of the forklift truck including the mast, backrest extension, or carriage when occupying the Work Platform.
-  Do not sit, stand, or climb on the Work Platform guardrail.
-  Do not use boards, ladders, other devices or extensions in the Work Platform as a work position.
-  Do not use the Work Platform as a convenience.
 - EXAMPLE: do not use the Work Platform as an elevator instead of using a stairway.
-  Do not use the Work Platform if its permanent data plated are missing, defaced or not legible.

EXCERPTS THAT APPLY TO FORKLIFT WORK PLATFORMS

EXCERPTS FROM OSHA 29 CFR 1910.178 1910.178(a)(2)

All new powered industrial trucks acquired and used by an employer shall meet the design and construction requirements for powered industrial trucks established in the “American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1-1969”, which is incorporated by reference as specified in §1910.6, except for vehicles intended primarily for earth moving or over-the-road hauling..

EXCERPTS FROM OSHA 29 CFR 1926.602 1926.602(c)(1)(vi)

All industrial trucks in use shall meet the applicable requirements of design, construction, stability, inspection, testing, maintenance, and operation, as defined in American National Standards Institute B56.1.

EXCERPTS FROM ANSI/ITSDF B56.1-2016

4.1 Introduction

Part II contains requirements for the users of powered industrial trucks. Included are requirements for operator qualifications and training, operating safety rules, and maintenance practices.

4.17 Elevating Personnel

4.17.1

Only operator-up high lift trucks have been designed to lift personnel. On these trucks the requirements of paragraph 4,17,2 shall be met for the protection of personnel. If a work platform is used on trucks designed and intended for handling materials, the requirements of paras. 4.17.2 and 4.17.3 shall be met for the protection of personnel.

4.17.2

Whenever a truck is used to elevate personnel, the following precautions for the protection of personnel shall be taken:

- a. Comply with the design requirements in para 7.38 of this standard.
- b. Provide protection for personnel in their normal working position on the platform from moving parts of the truck that represent a hazard.

- c. Make sure required fall restraint means, such as guardrails and/or personal fall protection systems, are in place and properly used (see 7.38.1(d)(I). For personal fall protection system configurations, see Table 1.
- d. Be certain that the lifting mechanism is operating smoothly throughout its entire lift height, both empty and loaded, and that all lift limiting devices and latches, if provided, are functional.
- e. Provide overhead protection as indicated to be necessary by the operating conditions.
- f. All components of the personal fall protection system shall be inspected and maintained in accordance with the schedule and requirements found in Section 6 of ANSI/ASSE Z359.1 Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components.

4.17.3

Whenever a truck is equipped with a work platform (does not include operator-up high lift trucks), precautions specified in para. 4.17.2 shall be taken and the following additional precautions shall be taken for the protection of personnel:

- a. Provide a platform that complies with the design requirements in para. 7.38.3.
- b. The platform attachment means are applied and the platform is securely attached to the lifting carriage or forks.
- c. When the lifting carriage and/or forks are supporting the platform used to elevate personnel, the lifting carriage and/or forks are secured to prevent them from pivoting upward.
- d. The mast is vertical — do not operate on a side slope.
- e. The platform is horizontal and centered and not tilted forward or rearward when elevated.
- f. The truck has a firm and level footing.
- g. Place all travel controls in neutral and set the parking brake.
- h. Before elevating personnel, mark area with cones or other devices to warn of work by elevated personnel.
- i. Lift and lower personnel smoothly, with caution, and only at their request.
- j. Avoid overhead obstructions and electric wires.
- k. Keep hands and feet clear of controls other than those in use.
- l. Move truck and/or platform slowly, only for minor adjustments in horizontal positioning when personnel are on the platform, and only at their request.
- m. On trucks equipped with rotators, mechanically secure the rotator to prevent movement.
- n. Have a trained operator in position to control the truck, or available to operate controls. When the operator is not in the operating position, engage the parking brake and block the wheels.
- o. The combined weight of the platform, load, and personnel is not to exceed one-half of the capacity as indicated on the nameplate of the truck on which the platform is used.
- p. Personnel are to remain on the platform floor. Use of railings, planks, ladders, etc., on the platform for the purpose of achieving additional reach or height is prohibited.
- q. Personnel and equipment on the platform are not to exceed the available space.
- r. Lower platform to floor level for personnel to enter and exit. Do not climb on any part of the truck in attempting to enter and exit.

7.38 Platforms: Elevating

7.38.1 Platforms used for elevating personnel shall have

- (a) a slip resistant floor surface.
- (b) a minimum floor space of 450 mm x 450 mm (18 in x 18 in) for each platform occupant.
- (c) protection for personnel in their normal working position on the platform from moving parts of the truck that represent a hazard.
- (d) fall restraint means such as a guard rail and/or a personal fall protection system, whenever the platform can be elevated to a height greater than 1200 mm (47.25 in).

(1) A guard rail shall have a height above the platform floor of not less than 915 mm (36 in) or more than 1065 mm (42 in) around its upper periphery and include a midrail. To provide an access opening, the guard rail may be hinged or removable, or chains may be used if proper positioning is easily accomplished and a secured condition is discernible. Guard rails and access opening guards shall be capable of withstanding a concentrated horizontal force of 890 N (200 lb) applied at the point of least resistance without permanent deformation.

(2) Personal fall protection systems are intended to limit the distance an operator can fall from the platform and limit the forces imposed on an operator's body when the fall is arrested. Personal fall protection system configurations are based on the operator's weight. See Table | for personal fall protection system configurations.

(a) The complete fall protection system shall consist of:

- (1) Components, excluding body belts and anchorages, shall meet the applicable requirements as stated in clauses 3 and 4 of ANSI/ASSE Z359.1 Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components
- (2) Body belts shall have a width of at least 44mm and shall meet the applicable requirements as stated in clauses 3 and 7 in ANSI/ASSE A10.32 Standard for Personal Fall Protection Used in Construction and Demolition Operations.
- (3) Anchorage(s) shall be capable of withstanding three consecutive drops of a 113 kg (250 lb) test weight (multiplied by the maximum number of personal fall protection systems that may be attached) free falling a distance of 1825 mm (6 ft.) without allowing the test weight to fall free to the ground.

(b) The fall protection system shall allow personnel freedom of movement in their working area.

(c) The anchorage(s) of the fall protection system shall be located on an overhead member of the platform located near the longitudinal center of the platform.

(d) Personal fall protection systems shall be so arranged as not to cause a trip hazard for the operator.

(3) Supplementary platforms

(a) When a supplementary platform is utilized, it shall be provided with guard rails or other restraining means. The work area may be provided with a fall protection system configuration in lieu of, or in addition to, guard rails.

(b) When the supplementary platform is not utilized, a restraining means such as a personal fall protection system configuration or guard rails, chains, cable shall be provided on the open (load) side of the operator's platform.

7.38.2

Operator platforms for operator-up, high lift trucks shall comply with para. 7.38.1 and shall have

- a. sufficient strength to withstand a compression load equal to 2.5 times the weight of the loaded truck applied along the longitudinal axis of the truck with the outermost projection of the platform against a flat vertical surface
- b. an overhead guard manufactured in accordance with para. 7.30

7.38.3

Work platforms (does not include operator platforms) shall comply with para. 7.38.1 and shall have

- a. a 100 mm minimum (4 in) height toe plate on all sides of the platform. The toe plate may be omitted at the access opening(s).
- b. the floor of the platform located not more than 200 mm (8 in) above the upper face of the supporting truck fork blade.
- c. means to securely attach the platform to the lifting carriage or forks, and to prevent the lifting carriage or forks from pivoting upward.
- d. means to correctly locate the platform centered laterally on the truck.
- e. floor dimensions that neither exceed two times the load center distance listed on the truck nameplate, measured parallel to the longitudinal center plane of the truck, nor have a width greater than the overall width of the truck (measured across the load bearing tires) plus 250 mm (10 in) on either side.

- f. when controls for lift and lower are provided, means to render inoperative all operating controls other than those on the work platform when the controls on the elevating platform have been selected for use. Only one location of controls shall be capable of being operated at one time [with the exception of lowering means noted in para. 7.38.1(e)].
- g. an overhead guard manufactured in accordance with para. 7.30, when requested by the user.
- h. the combined weight of the platform, load, and personnel not to exceed one-half of the capacity as indicated on the nameplate of the truck on which the platform is used.
- i. the following information prominently indicated on the platform:
 - 1. maximum load including personnel and equipment
 - 2. weight of empty platform
 - 3. minimum capacity of truck on which the platform can be used

7.38.4

Trucks used for elevating personnel shall have

- a. When controls are supplied for use on the elevating platform, they shall be readily accessible to the operator and protected from damage and inadvertent actuation. Provision to shut off power to the truck shall be provided. An emergency lowering means operable from the ground shall be provided for overriding the controls on the platform.
- b. Hydraulic or pneumatic hoisting systems shall include means to prevent unintended descent in excess of 0.6 m/s in the event of a hose failure.

EXCERPTS FROM OSHA 1926.502, SUBPART M, FALL PROTECTION

1926.502(a)(2)

Employers shall provide and install all fall protection systems required by this subpart for an employee, and shall comply with all other pertinent requirements of this subpart before that employee begins the work that necessitates the fall protection.

1926.502(b) "Guardrail systems." Guardrail systems and their use shall comply with the following provisions:

1926.502(b)(1)

Top edge height of top rails, or equivalent guardrail system members, shall be 42 inches (1.1 m) plus or minus 3 inches (8 cm) above the walking/ working level. When conditions warrant, the height of the top edge may exceed the 45-inch height, provided the guardrail system meets all other criteria of this paragraph.

- Note: When employees are using stilts, the top edge height of the top rail, or equivalent member, shall be increased by an amount equal to the height of the stilts.

1926.502(b)(2)

Midrails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members shall be installed between the top edge of the guardrail system and the walking/ working surface when there is no wall or parapet wall at least 21 inches (53 cm) high.

1926.502(b)(2)(i)

Midrails, when used, shall be installed at a height midway between the top edge of the guardrail system and the walking/ working level.

1926.502(b)(2)(ii)

Screens and mesh, when used, shall extend from the top rail to the walking/ working level and along the entire opening between top rail supports.

1926.502(b)(2)(iii)

Intermediate members (such as balusters), when used between posts, shall be not more than 19 inches (48 cm) apart.

1926.502(b)(2)(iv) Other structural members (such as additional midrails and architectural panels) shall be installed such that there are no openings in the guardrail system that are more than 19 inches (.5 m) wide.

1926.502(b)(3)

Guardrail systems shall be capable of with- standing, without failure, a force of at least 200 pounds (890 N) applied within 2 inches (5.1 cm) of the top edge, in any outward or downward direction, at any point along the top edge.

1926.502(b)(4)

When the 200 pound (890 N) test load specified in paragraph (b)(3) of this section is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches (1.0 m) above the walking/ working level. Guardrail system components selected and constructed in accordance with the Appendix B to subpart M of this part will be deemed to meet this requirement.

1926.502(b){5}

Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds (666 N) applied in any downward or outward direction at any point along the midrail or other member.

1926.502(b)(6)

Guardrail systems shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.

1926.502(b)(7)

The ends of all top rails and midrails shall not overhang the terminal posts, except where such overhang does not constitute a projection hazard.

16 1926.502(b)(8) Steel banding and plastic banding shall not be used as top rails or midrails.

1926.502(b)(9)

Top rails and midrails shall be at least one-quarter inch (0.6 cm) nominal diameter or thickness to prevent cuts and lacerations. If wire rope is used for top rails, it shall be flagged at not more than 6-foot intervals with high-visibility material.

1926.502(d)

"Personal fall arrest systems." Personal fall arrest systems and their use shall comply with the provisions set forth below. Effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. Note: The use of a body belt in a positioning device system is acceptable and is regulated under paragraph (e) of this section.

1926.502(d)(15)

Anchorage used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as follows:

1926.502(d)(15)(i)

as part of a complete personal fall arrest system which maintains a safety factor of at least two; and

1926.502(d)(15 ii)

under the supervision of a qualified person.

1926.502(d){16}

Personal fall arrest systems, when stopping a fall, shall:

1926.502(d)(16)(i)

limit maximum arresting force on an employee to 900 pounds (4 kN) when used with a body belt;

1926.502(d)(16)(ii)

limit maximum arresting force on an employee to 1,800 pounds (8 kN) when used with a body harness;

1926.502(d)(16)(iii)

be rigged such that an employee can neither free fall more than 6 feet (1.8 m), nor contact any lower level;

1926.502(j)

"Protection from falling objects." Falling object protection shall comply with the following provisions:

1926.502(j)(1)

Toeboards, when used as falling object protection, shall be erected along the edge of the overhead walking/ working surface for a distance sufficient to protect employees below.

1926.502(j)(2)

Toeboards shall be capable of withstanding, without failure, a force of at least 50 pounds (222 N) applied in any downward or outward direction at any point along the toeboard.

1926.502(j)(3)

Toeboards shall be a minimum of 3 1/2 inches (9 cm) in vertical height from their top edge to the level of the walking / working surface. They shall have not more than 1/4 inch (0.6 cm) clearance above the walking/working surface. They shall be solid or have openings not over 1 inch (2.5 cm) in greatest dimension.

1926.502(j)(4)

Where tools, equipment, or materials are piled higher than the top edge of a toeboard, paneling or screening shall be erected from the walking/ working surface or toeboard to the top of a guardrail system's top rail or midrails, for a distance sufficient to protect employees below.

1926.502(j)(5)

Guardrail systems, when used as falling object protection, shall have all openings small enough to prevent passage of potential falling objects.

19 WARNINGS

WARNING: Never attempt to modify the **Lifting Technologies Inc.** Work Platform's QUICK CLAW automatic attach and release safety system.

- ☒ Keep area around fork openings clear when inserting forks into the Work Platform.
- ☒ Exercise extreme caution to prevent hoisting, traveling, or lowering into or onto any obstruction.
- ☒ **KNOW** the weight of all persons and objects located in or attached to the Work Platform and do not exceed the rated load capacity of the Work Platform.

WARNING: It is not recommended that any line, including, but not limited to, welding lead, air hose, oxygen-acetylene torch, rubber, electrical line, etc. be attached to the Work Platform. However, if it should become necessary to do so, the weight **MUST BE KNOWN** and included in the weight that may be loaded onto the Work Platform. Never exceed the rated load capacity of the Work Platform.

NOTE: Strict observance and execution of all procedures set forth in this handbook will better qualify personnel to perform in a safer, more professional manner. However, this does not release users from the responsibility of reading and fully understanding the applicable OSHA rules and ANSI/ITSDF standards. **YOUR SAFETY IS AT STAKE!**

It is impossible to compile a list of safety precautions covering all situations. However, there are basic safety precautions that **MUST** be followed during your daily routine. Safety is **YOUR** primary responsibility. This Work Platform can only be safe if it is used safely.

WARRANTY

Lifting Technologies Inc. warrants material and workmanship of its Work Platform for the period of thirty-six (36) months from the date of purchase, and this Warranty is limited to the purchase price of the Work Platform. It is the responsibility of the owner of the Work Platform to instruct the user in all use and safety procedures. Abuse of the Work Platform is not considered under the Warranty.