

## LIFTING TECHNOLOGIES USE & SAFETY HANDBOOK



### CRANE-SUSPENDED PERSONNEL PLATFORMS (Manbaskets)

Featuring the Original Detachable Test Weight System

MODEL #:

SERIAL #:

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### **GENERAL**

All procedures contained in this handbook are based on the use of the Lifting Technologies, LLC Crane or Derrick Suspended Personnel Platform (hereinafter called Lifting Technologies, LLC Manbasket, or the Manbasket), under proper operating conditions, with no deviation from original design intent, as per the Department of Labor Occupational Safety and Health Administration 29 CFR Part 1926.1431 Hoisting Personnel effective November 8, 2010.

Note: The Manbasket may comply with more codes than just the OSHA code referenced in this manual. All additional safety and design codes your Manbasket is in compliance with will be listed on the Manbasket's Certificate of Compliance.

A thorough knowledge of the operating characteristics and limitations of the Manbasket 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, normally located on the bottom side of the upper guardrail of the Manbasket. The Data Plate contains the Manbasket's serial and model number, gross weight, test weight, maximum occupancy, and its **MAXIMUM RATED LOAD CAPACITY.** 

**DO NOT** deface or cover this information.

Allow only authorized and qualified personnel, who have demonstrated that they understand the proper procedures and use of the Manbasket, to use it.

**ALWAYS** inspect the Manbasket for deficiencies before each use.

**NEVER** use a Manbasket that has deficiencies, damage, or unauthorized modifications.

Modifications to the Manbasket may only be performed after permission has been granted in writing from Lifting Technologies, LLC.

All requests for modifications must be submitted in writing to Lifting Technologies, LLC, P.O. Box 4167, Missoula, Montana 59806 or by email to info@lifttech.com.

Any modification or repair to the Manbasket must be performed or authorized by Lifting Technologies, LLC. Lifting Technologies, LLC cannot be held responsible for any unauthorized modification or repair to the Manbasket.

If damage occurs during use, stop work immediately and proceed to safety.

The Lifting Technologies, LLC Manbasket is intended only for hoisting or lowering personnel and their tools to an otherwise inaccessible work area. The combined weight of personnel and tools **MUST NOT** exceed the rating as posted on the Data Plate.

The Lifting Technologies, LLC Manbasket is designed for your safety. **DO NOT RISK YOUR LIFE BY USING THE MANBASKET WITH AN UNQUALIFIED CRANE OR DERRICK OPERATOR.** 

Since safety of personnel and proper use of the Manbasket are of primary concern, **WARNINGS** are inserted throughout this handbook.

Warnings not adhered to could result in injury or death to personnel; or, if not strictly adhered to, could cause damage to or destruction of equipment.

Some general **DO's** and **DO NOT's** are listed on pages 5 and 6; specific **WARNINGS** and cautions are listed on page 30.

### DO ...

DO wear a full-body harness when occupying the Manbasket, with the lanyard attached preferably to the Manbasket's inner grab rail as its personal fall arrest system anchorage.

This structural member is capable of supporting at least 5,000 lbs. per employee attached and is certified by actual load test at any part of this inner grab rail.

Multiple employees must spread out their lanyard attachment to anchorage points evenly throughout the platform.

- **DO** wear a hard hat and any other required Personal Protective Equipment (PPE).
- **DO** perform a complete inspection of the Manbasket before each use.
- **DO** be aware of any clearances required before initiating any crane function.
- DO understand all procedures before using the Manbasket.
- **DO** perform the required trial lift/proof test, throughout the full range of the intended lift every time the crane is moved and reset.
- DO use extreme caution at all times when using the Manbasket.

Remember, crane manufacturers do not authorize the use of Manbaskets. A procedure for the use of Manbaskets has been outlined in OSHA 29 CFR Part 1926.1431 Hoisting Personnel.

Familiarize yourself with this before using the Manbasket. The use of a Manbasket must be the

safest alternative to access the work.

OSHA regulations require you to "tie off" when occupying a Manbasket except over water. When working over water, the rules of OSHA 29 CFR 1926.106 shall apply which require a U.S. Coast Guard-approved life jacket or buoyant work vest.

### **DO NOT ...**

- **DO NOT** use the Manbasket without first having the crane inspected by a qualified crane inspector.
- **DO NOT** use a defective or damaged crane.
- DO NOT use a defective or damaged Manbasket.
- **DO NOT** breach the required clearance of a live electrical line.
- **DO NOT** permit unauthorized personnel to use the Manbasket.
- DO NOT allow personnel in the Manbasket with its test weight attached.
- DO NOT permit persons to use this Manbasket who are not familiar with this handbook or OSHA 29 CFR Part 1926.1431 Hoisting Personnel.
- **DO NOT** attach test weight by any means other than that supplied by Lifting Technologies, LLC.
- DO NOT attach your body harness lanyard to an adjacent structure when occupying the Manbasket.

- DO NOT sit, stand, or climb on the Manbasket guard rail.
- DO NOT use boards, ladders, other devices, or extensions in the Manbasket as a work position.
- **DO NOT** use the Manbasket as a convenience. EXAMPLE: Do not use the Manbasket as an elevator if a stairway can be used.
- DO NOT use the Manbasket if the Manbasket's permanent Data Plates are missing, defaced or not legible.
- DO NOT use a Manbasket that has not been first subjected to the required trial lift and proof test.

### EXCERPTS THAT APPLY TO SUSPENDED PERSONNEL PLATFORMS (MANBASKETS)

#### EXCERPTS FROM OSHA 29 CFR 1926.1431 HOISTING PERSONNEL

The requirements of this section are supplemental to the other requirements in this subpart and apply when one or more employees are hoisted.

(a) The use of equipment to hoist employees is prohibited except where the employer demonstrates that the erection, use, and dismantling of conventional means of reaching the work area, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform, or scaffold, would be more hazardous, or is not possible because of the project's structural design or worksite conditions. This paragraph does not apply to work covered by subpart R (Steel Erection) of this part.

#### (b) Use of personnel platform.

(1) When using equipment to hoist employees, the employees must be in a personnel platform that meets the requirements of paragraph (e) of this section.

(2) *Exceptions:* A personnel platform is not required for hoisting employees:

(i) Into and out of drill shafts that are up to and including 8 feet in diameter (see paragraph (o) of this section for requirements for hoisting these employees).

(ii) In pile driving operations (see paragraph

(p) of this section for requirements for hoisting these employees).

(iii) Solely for transfer to or from a marine worksite in a marine-hoisted personnel transfer device (see paragraph (r) of this section for requirements for hoisting these employees).

(iv) In storage-tank (steel or concrete), shaft and chimney operations (see paragraph(s) of this section for requirements for hoisting these employees).

#### (c) Equipment set-up.

(1) The equipment must be uniformly level, within one percent of level grade, and located on footing that a qualified person has determined to be sufficiently firm and stable.

(2) Equipment with outriggers or stabilizers must have them all extended and locked. The amount of extension must be the same for all outriggers and stabilizers and in accordance with manufacturer procedures and load charts.

#### (d) Equipment criteria.

(1) Capacity: use of suspended personnel platforms. The total load (with the platform loaded, including the hook, load line and rigging) must not exceed 50 percent of the rated capacity for the radius and configuration of the equipment, except during proof testing.

(2) Capacity: use of boom-attached personnel platforms. The total weight of the loaded personnel platform must not exceed 50 percent of the rated capacity for the radius and configuration of the equipment (except during proof testing).

# (3) Capacity: hoisting personnel without a personnel platform.

When hoisting personnel without a personnel platform pursuant to paragraph (b)(2) of this section, the total load (including the hook, load line, rigging and any other equipment that imposes a load) must not exceed 50 percent of the rated capacity for the radius and configuration of the equipment, except during proof testing.

(4) When the occupied personnel platform is in a stationary working position, the load and boom hoist brakes, swing brakes, and operator actuated secondary braking and locking features (such as pawls or dogs) or automatic secondary brakes must be engaged.

#### (5) Devices.

(i) Equipment (except for derricks and articulating cranes) with a variable angle boom must be equipped with all of the following:

**(A)** A boom angle indicator, readily visible to the operator.

**(B)** A boom hoist limiting device.

(ii) Articulating cranes must be equipped with a properly functioning automatic overload protection device.

(iii) Equipment with a luffing jib must be equipped with:

**(A)** A jib angle indicator, readily visible to the operator, and

**(B)** A jib hoist limiting device.

(iv) Equipment with telescoping booms must be equipped with a device to indicate the boom's extended length clearly to the operator, or must have measuring marks on the boom.

(v) Anti two-block. Α device which automatically prevents damage and load failure from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component) must be used. The device(s) must prevent such points damage/ failure at all where two-blocking could occur. Exception: this device is not required when hoisting personnel in pile driving operations. Instead, paragraph (p)(2) of this section specifies how to prevent two-blocking during such operations.

(vi) Controlled load lowering. The load line hoist drum must have a system, other than the load line hoist brake, which regulates the lowering rate of speed of the hoist mechanism. This system or device must be used when hoisting personnel.

**NOTE:** Freefall of the load line hoist is prohibited (see § 1926.1426(d); the use of equipment in which the boom hoist mechanism can free fall is also prohibited (see §1926.1426(a)(1).

(vii) *Proper operation required.* Personnel hoisting operations must not begin unless the devices listed in this section are in proper working order. If a device stops working properly during such operations, the operator must safely stop operations. Personnel hoisting operations must not resume until the device is again working properly. Alternative measures are not permitted.(See § 1926.1417 for tag-out and related requirements.)

(6) Direct attachment of a personnel platform to a luffing jib is prohibited.

#### (e) Personnel platform criteria.

(1) A qualified person familiar with structural design must design the personnel platform and attachment/ suspension system used for hoisting personnel.

(2) The system used to connect the personnel platform to the equipment must allow the platform to remain within 10 degrees of level, regardless of boom angle.

(3) The suspension system must be designed to minimize tipping of the platform due to movement of employees occupying the platform.

(4) The personnel platform itself (excluding the guardrail system and personal fall arrest system anchorages), must be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

(5) All welding of the personnel platform and its components must be performed by a certified welder familiar with the weld grades, types and material specified in the platform design.

(6) The personnel platform must be equipped with a guardrail system which meets the requirements of subpart (M) of this part, and must be enclosed at least from the toeboard to mid-rail with either solid construction material or expanded metal having openings no greater than ½ inch (1.27cm). Points to which personal fall arrest systems are attached must meet the anchorage requirements in subpart (M) of this part.

(7) A grab rail must be installed inside the entire perimeter of the personnel platform except for

access gates/ doors.

(8) Access gates / doors. If installed, access gates/ doors of all types (including swinging, sliding, folding, or other types) must:

(i) Not swing outward. If due to the size of the personnel platform, such as a 1-person platform, it is infeasible for the door to swing inward and allow safe entry for the platform occupant, then the access gate/door may swing outward.

(ii) Be equipped with a device that prevents accidental opening.

(9) Headroom must be sufficient to allow employees to stand upright in the platform.

(10) In addition to the use of hard hats, employees must be protected by overhead protection on the personnel platform when employees are exposed to falling objects. The platform overhead protection must not obscure the view of the operator or platform occupants (such as wire mesh that has up to ½ inch openings) unless full protection is necessary.

(11) All edges exposed to employee contact must be smooth enough to prevent injury.

(12) The weight of the platform and its rated capacity must be conspicuously posted on the platform with a plate or other permanent marking.

#### (f) Personnel platform loading.

(1) The personnel platform must not be loaded in excess of its rated capacity.

(**2**) Use.

(i) Personnel platforms must be used only for employees, their tools, and the materials necessary to do their work. Platforms must not be used to hoist materials or tools when not hoisting personnel.

(ii) *Exception:* materials and tools to be used during the lift, if secured and distributed in accordance with paragraph (f)(3) of this section may be in the platform for trial lifts.

(3) Materials and tools must be:

(i) Secured to prevent displacement.

(ii) Evenly distributed within the confines of the platform while it is suspended.

(4) The number of employees occupying the personnel platform must not exceed the maximum number the platform was designed to hold or the number required to perform the work, whichever is less.

#### (g) Attachment and rigging.

#### (1) Hooks and other detachable devices.

(i) Hooks used in the connection between the hoist line and the personnel platform (including hooks on overhaul ball assemblies, lower load blocks, bridle legs, or other attachment assemblies or components) must be:

(A) Of a type that can be closed and locked, eliminating the throat opening.

**(B)** Closed and locked when attached.

(ii) Shackles used in place of hooks must be of the alloy anchor type, with either:

(A) A bolt, nut and retaining pin, in place;

**(B)** Of the screw type, with the screw pin secured from accidental removal.

(iii) Where other detachable devices are used, they must be of the type that can be closed and locked to the same extent as the devices addressed in paragraphs (g)(1)(i) and (ii) of this section. Such devices must be closed and locked when attached.

(2) *Rope bridle.* When a rope bridle is used to suspend the personnel platform, each bridle leg must be connected to a master link or shackle (see paragraph (g)(1) of this section) in a manner that ensures that the load is evenly divided among the bridle legs.

(3) Rigging hardware (including wire rope, shackles, rings, master links, and other rigging hardware) and hooks must be capable of supporting, without failure, at least five times the maximum intended load applied or transmitted to that component. Where rotation resistant rope is used, the slings must be capable of supporting without failure at least ten times the maximum intended load.

(4) Eyes in wire rope slings must be fabricated with thimbles.

(5) Bridles and associated rigging for suspending the personnel platform must be used only for the platform and the necessary employees, their tools and materials necessary to do their work. The bridles and associated rigging must not have been used for any purpose other than hoisting personnel.

#### (h) Trial lift and inspection.

(1) A trial lift with the unoccupied personnel platform loaded at least to the anticipated lift weight must be made from ground level, or any

other location where employees will enter the platform, to each location at which the platform is to be hoisted and positioned. Where there is more than one location to be reached from a single set-up position, either individual trial lifts for each location, or a single trial lift, in which the platform is moved sequentially to each location, must be performed; the method selected must be the same as the method that will be used to hoist the personnel.

(2) The trial lift must be performed immediately prior to each shift in which personnel will be hoisted. In addition, the trial lift must be repeated prior to hoisting employees in each of the following circumstances:

(i) The equipment is moved and set up in a new location or returned to a previously used location.

(ii) The lift route is changed, unless the competent person determines that the new route presents no new factors affecting safety.

(3) The competent person must determine that:

(i) Safety devices and operational aids required by this section are activated and functioning properly. Other safety devices and operational aids must meet the requirements of § 1926.1415 and § 1926.1416.

(ii) Nothing interferes with the equipment or the personnel platform in the course of the trial lift.

(iii) The lift will not exceed 50 percent of the equipment's rated capacity at any time during the lift.

(iv) The load radius to be used during the lift has been accurately determined.

(4) Immediately after the trial lift, the competent person must:

(i) Conduct a visual inspection of the equipment, base support or ground, and personnel platform, to determine whether the trial lift has exposed any defect or problem or produced any adverse effect.

(ii) Confirm that, upon the completion of the trial lift process, the test weight has been removed.

(5) Immediately prior to each lift:

(i) The platform must be hoisted a few inches with the personnel and materials/tools on board and inspected by a competent person to ensure that it is secure and properly balanced.

(ii) The following conditions must be determined by a competent person to exist before the lift of personnel proceeds:

(A) Hoist ropes must be free of deficiencies in accordance with §1926.1413(a).

**(B)** Multiple part lines must not be twisted around each other.

**(C)** The primary attachment must be centered over the platform.

**(D)** If the load rope is slack, the hoisting system must be inspected to ensure that all ropes are properly seated on drums and in sheaves.

**(6)** Any condition found during the trial lift and subsequent inspection(s) that fails to meet a requirement of this standard or otherwise creates

a safety hazard must be corrected before hoisting personnel. (See § 1926.1417 for tag-out and related requirements.)

#### (i) [Reserved.]

#### (j) Proof testing.

(1) At each job site, prior to hoisting employees on the personnel platform, and after any repair or modification, the platform and rigging must be proof tested to 125 percent of the platform's rated capacity. The proof test may be done concurrently with the trial lift.

(2) The platform must be lowered by controlled load lowering, braked, and held in a suspended position for a minimum of five minutes with the test load evenly distributed on the platform.

(3) After proof testing, a competent person must inspect the platform and rigging to determine if the test has been passed. If any deficiencies are found that pose a safety hazard, the platform and rigging must not be used to hoist personnel unless the deficiencies are corrected, the test is repeated, and a competent person determines that the test has been passed. (See § 1926.1417 for tag-out and related requirements.)

(4) Personnel hoisting must not be conducted until the competent person determines that the platform and rigging have successfully passed the proof test.

#### (k) Work practices.

(1) Hoisting of the personnel platform must be performed in a slow, controlled, cautious manner, with no sudden movements of the equipment or the platform.

(2) Platform occupants must:

(i) Keep all parts of the body inside the platform during raising, lowering, and horizontal movement. This provision does not apply to an occupant of the platform when necessary to position the platform or while performing the duties of a signal person.

(ii) Not stand, sit on, or work from the top or intermediate rail or toeboard, or use any other means/ device to raise their working height.

(iii) Not pull the platform out of plumb in relation to the hoisting equipment.

(3) Before employees exit or enter a hoisted personnel platform that is not landed, the platform must be secured to the structure where the work is to be performed, unless the employer can demonstrate that securing to the structure would create a greater hazard.

(4) If the platform is tied to the structure, the operator must not move the platform until the operator receives confirmation that it is freely suspended.

(5) Tag lines must be used when necessary to control the platform.

(6) *Platforms without controls.* Where the platform is not equipped with controls, the equipment operator must remain at the equipment controls, on site, and in view of the equipment, at all times while the platform is occupied.

(7) *Platforms with controls.* Where the platform is equipped with controls, all of the following must be met at all times while the platform is occupied:

(i) The occupant using the controls in the platform must be a qualified person with respect to their use, including the safe

limitations of the equipment and hazards associated with its operation.

(ii) The equipment operator must be at a set of equipment controls that include boom and swing functions of the equipment, and must be on site and in view of the equipment.

(iii) The platform operating manual must be in the platform or on the equipment.

#### (8) Environmental conditions.

(i) *Wind.* When wind speed (sustained or gusts) exceeds 20 mph at the personnel platform, a qualified person must determine if, in light of the wind conditions, it is not safe to lift personnel. If it is not, the lifting operation must not begin (or, if already in progress, must be terminated).

(ii) Other weather and environmental conditions. A qualified person must determine if, in light of indications of dangerous weather conditions, or other impending or existing danger, it is not safe to lift personnel. If it is not, the lifting operation must not begin (or, if already in progress, must be terminated).

(9) Employees being hoisted must remain in direct communication with the signal person (where used), or the operator.

#### (10) Fall protection.

(i) Except over water, employees occupying the personnel platform must be provided and use a personal fall arrest system. The system must be attached to a structural member within the personnel platform. When working over or near water, the requirements of §1926.106 apply.

(ii) The fall arrest system, including the attachment point (anchorage) used to comply with paragraph (i) of this section, must meet the requirements in §1926.502.

#### (11) Other load lines.

(i) No lifts must be made on any other of the equipment's load lines while personnel are being hoisted, except in pile driving operations.

(ii) Factory-produced boom-mounted personnel platforms that incorporate a winch as original equipment. Loads are permitted to be hoisted by such a winch while employees occupy the personnel platform only where the load on the winch line does not exceed 500 pounds and does not exceed the rated capacity of the winch and platform.

#### (12) Traveling - equipment other than derricks.

(i) Hoisting of employees while the equipment is traveling is prohibited, except for:

(A) Equipment that travels on fixed rails; or

**(B)** Where the employer demonstrates that there is no less hazardous way to perform the work.

**(C)** This exception does not apply to rubber-tired equipment.

(ii) Where employees are hoisted while the equipment is traveling, all of the following criteria must be met:

**(A)** Equipment travel must be restricted to a fixed track or runway.

**(B)** Where a runway is used, it must be a firm, level surface designed, prepared and designated as a path of travel for the weight and configuration of the equipment being used to lift and travel with the personnel platform. An existing surface may be used as long as it meets these criteria.

**(C)** Equipment travel must be limited to boom length.

**(D)** The boom must be parallel to the direction of travel, except where it is safer to do otherwise.

(E) A complete trial run must be performed to test the route of travel before employees are allowed to occupy the platform. This trial run can be performed at the same time as the trial lift required by paragraph (h) of this section which tests the lift route.

**13**) *Traveling - Derricks.* Derricks are prohibited from traveling while personnel are hoisted.

(I) [Reserved.]

#### (m) Pre-lift meeting. A pre-lift meeting must be:

(1) Held to review the applicable requirements of this section and the procedures that will be followed.

(2) Attended by the equipment operator, signal person (if used for the lift), employees to be hoisted, and the person responsible for the task to be performed.

(3) Held prior to the trial lift at each new work location, and must be repeated for any employees newly assigned to the operation.

(n) Hoisting personnel near power lines. Hoisting

personnel within 20 feet of a power line that is up to 350 kV, and hoisting personnel within 50 feet of a power line that is over 350 kV, is prohibited, except for work covered by subpart V of this part (Power Transmission and Distribution).

(o) *Hoisting personnel in drill shafts.* When hoisting employees into and out of drill shafts that are up to and including 8 feet in diameter, all of the following requirements must be met:

(1) The employee must be in either a personnel platform or on a boatswain's chair.

(2) If using a personnel platform, paragraphs (a) through (n) of this section apply.

(3) If using a boatswain's chair:

(i) The following paragraphs of this section apply: (a), (c), (d)(1), (d)(3), (d)(4), (e)(1), (e)(2), (e)(3), (f)(1), (f)(2)(i), (f)(3)(i), (g), (h), (k)(1), (k)(6), (k)(8), (k)(9), (k)(11)(i), (m), (n). Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute them with "boatswain's chair."

(ii) A signal person must be stationed at the shaft opening.

(iii) The employee must be hoisted in a slow, controlled descent and ascent.

(iv) The employee must use personal fall protection equipment, including a full-body harness, attached independent of the crane/ derrick.

(v) The fall protection equipment must meet the applicable requirements in §1926.502.

(vi) The boatswain's chair itself (excluding the personal fall arrest system anchorages), must

be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

(vii) No more than one person must be hoisted at a time.

(**p**) Hoisting personnel for pile driving operations. When hoisting an employee in pile driving operations, the following requirements must be met:

(1) The employee must be in a personnel platform or boatswain's chair.

(2) For lattice boom cranes: Clearly mark the cable (so that it can easily be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two-blocking, or use a spotter who is in direct communication with the operator to inform the operator when this point is reached. For telescopic boom cranes: Clearly mark the cable (so that it can be easily seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two-blocking, and use a spotter who is in direct communication with the operator to inform the operator to inform the operator to prevent two-blocking, and use a spotter who is in direct communication with the operator to inform the operator when this point is reached.

**(3)** If using a personnel platform, paragraphs (b) through (n) of this section apply.

(4) If using a boatswain's chair:

(i) The following paragraphs of this section apply: (a), (c), (d)(1), (d)(3), (d)(4), (e)(1), (e)(2), (e)(3), (f)(1), (f)(2)(i), (f)(3)(i), (g), (h), (j), (k)(1), (k)(6), (k)(8), (k)(9), (k)(11)(i), (m), and (n). Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute them with "boatswains chair.

(ii) The employee must be hoisted in a slow, controlled descent and ascent.

(iii) The employee must use personal fall protection equipment, including a full body harness, independently attached to the lower load block or overhaul ball.

(iv) The fall protection equipment must meet the applicable requirements in § 1926.502.

(v) The boatswain's chair itself (excluding the personal fall arrest system anchorages), must be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

(vi) No more than one person must be hoisted at a time.

#### (q) (Reserved.)

(r) Hoisting personnel for marine transfer. When hoisting employees solely for transfer to or from a marine worksite, the following requirements must be met:

(1) The employee must be in either a personnel platform or a marine-hoisted personnel transfer device.

(2) If using a personnel platform, paragraphs (a) through (n) of this section apply.

(3) If using a marine-hoisted personnel transfer device:

(i) The following paragraphs of this section apply: (a), (c)(2), (d)(1), (d)(3), (d)(4), (e)(1) through (5), (e)(12), (f)(1), (g), (h), (j), (k)(1), (k)(8), (k)(9), (k)(10)(ii), (k)(11)(i), (k)(12), (m), and (n). Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute them with "marine-hoisted personnel transfer device."

(ii) The transfer device must be used only for transferring workers.

(iii) The number of workers occupying the transfer device must not exceed the maximum number it was designed to hold.

(iv) Each employee must wear a U.S. Coast Guard personal flotation device approved for industrial use.

(s) Hoisting personnel for storage-tank (steel or concrete), shaft and chimney operations. When hoisting an employee in storage tank (steel or concrete), shaft and chimney operations, the following requirements must be met:

(1) The employee must be in a personnel platform except when the employer can demonstrate that use of a personnel platform is infeasible; in such a case, a boatswain's chair must be used.

(2) If using a personnel platform, paragraphs (a) through (n) of this section apply.

(3) If using a boatswain's chair:

(i) The following paragraphs of this section apply: (a), (c), (d)(1), (d)(3), (d)(4), (e)(1), (e)(2), (e)(3), (f)(1), (f)(2)(i), (f)(3)(i), (g), (h), (k)(1), (k)(6), (k)(8), (k)(9), (k)(11)(i), (m), (n). Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute them with "boatswains chair."

(ii) The employee must be hoisted in a slow, controlled descent and ascent.

(iii) The employee must use personal fall protection equipment, including a full-body harness, attached independent of the crane/

derrick. When there is no adequate structure for attachment of personal fall arrest equipment as required in §1926.502 (d)(15), the attachment must be to the lower load block or overhaul ball.

(iv) The fall protection equipment must meet the applicable requirements in §1926.502.

(v) The boatswain's chair itself (excluding the personal fall arrest system anchorages), must be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

(vi) No more than one person must be hoisted at a time.

NOTE: Lifting Technologies, LLC recommends keeping a record on file of this meeting, of crane capacities, and of load weight calculations.

## COMMENTS / MEETING NOTES:

### **WARNINGS**

**WARNING**: Never attempt to lengthen or shorten sling legs. Replace sling if any of sling legs are damaged. Order replacement slings only from Lifting Technologies, LLC.

Keep area around eyebolts clear when lifting the Manbasket off of test weight.

Exercise extreme caution to prevent hoisting, swinging, or lowering into or onto any obstructions.

**KNOW** the weight of all persons and objects located in or attached to the Manbasket, and do not exceed rated capacity of the Manbasket.

**KNOW** the weight of all load handling devices such as the Manbasket (see Data Plates), load block, overhaul ball, jib and/or extension and make the proper deductions according to the crane manufacturer's load capacity chart. Do not exceed one-half the rated net load of the crane.

**WARNING:** It is not recommended that any equipment, including but not limited to welding leads, air hose, oxygen-acetylene torch, electrical line, etc., be attached to the Manbasket. However, if it should become necessary to do so, the weight **MUST BE KNOWN** and included as part of the rated load that will be loaded into the Manbasket.

**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; but it does not release users from the responsibility of obtaining, reading, and fully understanding the required OSHA rules regarding Manbaskets.

# INSPECTION CHECKLIST

An inspection for damage and defects must be performed before each use of the Manbasket to hoist personnel. The inspection must be performed by a qualified person. Records of the inspections must be maintained for the Manbasket.

The inspection must consist of, but not be limited to, the following items:

Master Link

Slings

- Sling eyes and swaged upper-end fitting
- Swaged lower-end fittings
- Sling a Sling attachment pins with cotter keys
  - Data plates
- Guardrail
  - Inner grab rail
  - Mid-rail
- Access gate lock an Perforated panels Floor grating Toeboard Access gate lock and hinges

  - Test weight and eye bolts
  - Test weight attachment pins

### 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** prime responsibility. This Manbasket can only be safe if it is used safely.

### WARRANTY

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



#### LIFTING TECHNOLOGIES, LLC

P.O. Box 4167 • Missoula, Montana 59806 e-mail: info@lifttech.com Website: www.lifttech.com



# **LIFTING** TECHNOLOGIES, LLC

(800) 234-5507 www.lifttech.com