



OPERATION MANUAL

📞 (800) 878-7305

✉️ Rentals@RentLGH.com

🌐 RentLGH.com

CUSTOM CAGE

Suspended Personnel Mobile Platform

**Operating Instructions
User/Operator Guidelines
Manual must be kept in cage**

MADE IN THE



**Manufactured by
Lakeshore Industrial, Inc.
4514 Browns Drive
Two Rivers, WI 54241**

**(920) 793-2680
Fax: (920) 793-1830
1-888-265-1777**

Contents:

General Statement

Section I – OSHA regulation 29 CFR 1926

Subpart CC-1926.1431 Effective

November 9, 2010

Section II – Suspended Personnel Platform

Inspection checklist

Manufactured
in
U.S.A.

WARNING

**NO MODIFICATIONS, ADDITIONS,
ALTERATIONS OR REPAIRS ARE TO
BE MADE TO THIS DEVICE WITHOUT
WRITTEN AUTHORIZATION FROM
THE MANUFACTURER.**

Inspection Report
Suspended Personnel Platform
(To be filled out before each use)

MODEL #: DATE:

SERIAL #:..... **TIME:**

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE: INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

**Inspection Report
Suspended Personnel Platform
(To be filled out before each use)**

MODEL #: **DATE:**

SERIAL #: TIME:

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

GENERAL

It is the desire of Lakeshore Industrial, Inc. to assure safe operation and use of the Custom Cage. The purpose of this manual is to recommend to it's users a certain concept of inspection and proper maintenance.

Safety rules within certain companies vary; if a conflict should arise, the more stringent rules/regulations shall take precedence.

Safety begins with proper design and manufacturing. Lakeshore Industrial, Inc. welcomes that responsibility. However, when the Custom Cage is placed into service, we have no further direct control over its inspection, maintenance or operation. For this reason, safety in field operation must remain solely with the user/ operator.

PERSONNEL

It is assumed that competent personnel are assigned to operate, inspect and provide safe conditions when operating a crane. Remember that only the **properly designated** person should operate any crane at any time.

All operators and their supervisors shall be familiar with the safety regulations pertaining to crane operation and safety. (Regulation is part of this guide book.)

NOTE

Every crane operator shall be held directly responsible for the safe operation of the crane and any attachment to the crane. If there is any doubt as to safety, the operator should stop the crane until safe conditions have been restored.

CAUTION

PLATFORMS ARE TO BE USED ONLY IN
COMPLIANCE WITH FEDERAL RULES AND
REGULATIONS TITLE 29 CFR PART 1926.1431

**29CFR PART 1926
SUBPART CC-1926.1431
CRANE & DERRICKS
IN CONSTRUCTION**

Subpart CC—Cranes & Derricks in Construction

1926.1431 Hoisting Personnel

(a) General requirements. (1) The employer shall comply with the manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks. Where manufacturer's specifications are not available, the limitations assigned to the equipment shall be based on the determinations of a qualified engineer competent in this field and such determinations will be appropriately documented and recorded. Attachments used with cranes shall not exceed the capacity, rating, or scope recommended by the manufacturer.

(2) Rated load capacities, and recommended operating speeds, special hazard warnings, or instructions, shall be conspicuously posted on all equipment. Instructions or warnings shall be visible to the operator while he is at his control station.

(3) (Revoked)

(4) Hand signals to crane and derrick operators shall be those prescribed by the applicable ANSI standard for the type of crane in use. An illustration of the signals shall be posted at the job site.

(5) The employer shall designate a competent person who shall inspect all machinery and equipment prior to each use, and during use, to make sure it is in safe operating condition. Any deficiencies shall be repaired, or defective parts replaced, before continued use.

(6) A thorough, annual inspection of the hoisting machinery shall be made by a competent person, or by a government or private agency recognized by the U.S. Department of Labor. The employer shall maintain a record of the dates and results of inspections for each hoisting machine and piece of equipment.

(7) Wire rope shall be taken out of service when any of the following conditions exist:

(i) In running ropes, six randomly distributed broken wires in one lay or three broken wires in one strand in one lay;

(ii) Wear of one-third the original diameter of outside diameter of outside individual wires. Kinking, crushing, bird caging, or any other damage resulting in distortion of the

**Inspection Report
Suspended Personnel Platform
(To be filled out before each use)**

MODEL #: DATE:

SERIAL #:..... **TIME:**

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

Inspection Report
Suspended Personnel Platform
(To be filled out before each use)

MODEL #: DATE:

SERIAL #: TIME:

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

rope structure.

(iii) Evidence of any heat damage from any cause.

(iv) Reduction from nominal diameter of more than 1/64 inch for diameters up to and including 5/16 inch, 1/32 inch for diameters 3/8 inch to and including 1/2 inch, 3/64 inch for diameters 9/16 inch to and including 3/4 inch, 1/16 inch for diameters 7/8 inch to 11/8 inches inclusive, 3/32 inch for diameters 11/4 to 11/2 inches inclusive;

(v) In standing ropes, more than two broken wires in one lay in sections beyond end connections or more than one broken wire at an end connection.

(vi) Wire rope safety factors shall be in accordance with American National Standards Institute B30.5-1968 or SAE J959-1966.

(8) Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or other moving parts or equipment shall be guarded if such parts are exposed to contact by employees or otherwise create a hazard. Guarding shall meet the requirements of the American National Standards Institute B15.1-1958 Rev. Safety Code for Mechanical Power Transmission Apparatus.

(9) Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane.

(10) All exhaust pipes shall be guarded or insulated in areas where contact by employees is possible in the performance of normal duties.

(11) Whenever internal combustion engine powered equipment exhausts in enclosed spaces, tests shall be made and recorded to see that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres.

(12) All windows in cabs shall be of safety glass, or equivalent that introduces no visible distortion that will interfere with the safe operation of the machine.

(13) (i) Where necessary for rigging or service requirements, a ladder, or steps, shall be provided to give access to a cab roof.

(ii) Guardrails, handholds, and steps shall be provided on cranes for easy access to the car and cab, conforming to American National Standards Institute B30.5.

(iii) Platforms and walkways shall have anti-skid surfaces.

(14) Fuel tank filler pipe shall be located in such a position, or protected in such manner, as to not allow spill or overflow to run onto the engine, exhaust, or electrical equipment of any machine being fueled.

(i) An accessible fire extinguisher of 5BC rating, or higher, shall be available at all operator stations or cabs of equipment.

(ii) All fuels shall be transported, stored, and handled to meet the rules of Subpart F of this part. When fuel is transported by vehicles on public highways, Department of Transportation rules contained in 49 CFR Parts 177 and 393 concerning such vehicular transportation are considered applicable.

(15) Except where electrical distribution and transmission lines have been deenergized and visibly grounded at point of work or where insulating barriers, not a part of or an attachment to the equipment or machinery, have been erected to prevent physical contact with the lines, equipment or machines shall be operated proximate to power lines only in accordance with the following:

(i) For lines rated 50 kV. or below, minimum clearance between the lines and any part of the crane or load shall be 10 feet;

(ii) For lines rated over 50 kV., minimum clearance between the lines and any part of the crane or load shall be 10 feet plus 0.4 inch for each 1 kV. over 50 kV., or twice the length of the line insulator, but never less than 10 feet;

(iii) In transit with no load and boom lowered, the equipment clearance shall be a minimum of 4 feet for voltages less than 50 kV., and 10 feet for voltages over 50 kV., up to and including 345 kV., and 16 feet for voltages up to and including 750 kV.

(iv) A person shall be designated to observe clearance of the equipment and give timely warning for all operations where it is difficult for the operator to maintain the desired clearance by visual means;

(v) Cage-type boom guards, insulating links, or proximity warning devices may be used on cranes, but the use of such devices shall not alter the requirements of any other regulation of this part even if such device is required by law or regulation;

(vi) Any overhead wire shall be considered to be an energized line unless and until the person owning such line

Inspection Report
Suspended Personnel Platform
(To be filled out before each use)

MODEL #: DATE:

SERIAL #:..... **TIME:**

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

Inspection Report
Suspended Personnel Platform
(To be filled out before each use)

MODEL #: DATE:

SERIAL #: TIME:

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

or the electrical utility authorities indicate that it is not an energized line and it has been visibly grounded;

(vii) Prior to work near transmitter towers where an electrical charge can be induced in the equipment or materials being handled, the transmitter shall be de energized or tests shall be made to determine if electrical charge is induced on the crane. The following precautions shall be taken when necessary to dissipate induced voltages;

(a) The equipment shall be provided with an electrical ground directly to the upper rotating structure supporting the boom; and

(b) Ground jumper cables shall be attached to materials being handled by boom equipment when electrical charge is induced while working near energized transmitters. Crews shall be provided with nonconductive poles having large alligator clips or other similar protection to attach the ground cable to the load.

(c) Combustible and flammable materials shall be removed from the immediate area prior to operations.

(16) No modifications or additions which affect the capacity or safe operation of the equipment shall be made by the employer without the manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals, shall be changed accordingly. In no case shall the original safety factor of the equipment be reduced.

(17) The employer shall comply with Power Crane and Shovel Association Mobile Hydraulic Crane Standard No. 2.

(18) Sideboom cranes mounted on wheel or crawler **tractors** shall meet with requirements of SAE J743a 1964.

(b) Crawler, locomotive, and truck cranes. (1) All jibs shall have positive stops to prevent their movement of more than 5° above the straight line of the jib and boom on conventional type crane booms. The use of cable type belly slings does not constitute compliance with this rule.

(2) All crawler, truck, or locomotive cranes in use shall meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B30.5-1968, Safety Code for Crawler, Locomotive and Truck Cranes.

(c) Hammerhead tower cranes. (1) Adequate clearance shall be maintained between moving and **rotating** structures of the crane and fixed objects to allow the passage

of employees without harm.

(2) Employees required to perform duties on the horizontal boom of hammerhead tower cranes shall be protected against falling by guardrails or by safety belts and lanyards attached to lifelines in conformance with Subpart E, of this part.

(3) Buffers shall be provided at both ends of travel of the trolley.

(4) Cranes mounted on rail tracks shall be equipped with limit switches limiting the travel of the crane on the **track and** stops or buffers at each end of the tracks.

(5) All hammerhead tower cranes in use shall meet the applicable requirements for design, construction, installation, testing, maintenance, inspection, and operation as prescribed by the manufacturer.

(d) Overhead and gantry cranes. (1) The rated load of the crane shall be plainly marked on each side of the **crane** and if the crane has more than one hoisting unit, each hoist shall have its rated load marked on it or its load block, and this marking shall be clearly legible from the ground or floor.

(2) Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the truck wheels.

(3) Except for floor-operated cranes, a gong or other effective audible warning signal shall be provided for each crane equipped with a power traveling mechanism.

(4) All overhead and gantry cranes in use shall meet the applicable requirements for design, construction, installation, testing, maintenance, inspection, and operation as prescribed in the ANSI B30.2-1967, Safety Code for Overhead and Gantry Cranes.

(e) Derricks. All derricks in use shall meet the applicable requirements for design, construction, installation, inspection, testing, maintenance, and operation as prescribed in American National Standards Institute B30.6-1969, Safety Code for Derricks.

(f) Floating cranes and derricks—(1) Mobile cranes mounted on barges. (i) When a mobile crane is mounted on a barge, the rated load of the crane shall not exceed the original capacity specified by the manufacturer.

(ii) A load rating chart, with clearly legible letters and figures, shall be provided with each crane, and securely fixed at a location easily visible to the operator.

Inspection Report
Suspended Personnel Platform
(To be filled out before each use)

MODEL #: DATE:

SERIAL #: TIME:

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

Inspection Report
Suspended Personnel Platform
(To be filled out before each use)

MODEL #: **DATE:**

SERIAL #: TIME:

Checklist: YES (Y) No (N)
SATISFACTORY (S) UNSATISFACTORY (U)

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

- (iii) When load ratings are reduced to stay within the limits for list of the barge with a crane mounted on it, a new load rating chart shall be provided.
- (iv) Mobile cranes on barges shall be positively secured.
- (2) Permanently mounted floating cranes and derricks.
 - (i) When cranes and derricks are permanently installed on a barge, the capacity and limitations of use shall be based on competent design criteria.
 - (ii) A load rating chart with clearly legible letters and figures shall be provided and securely fixed at a location easily visible to the operator.
 - (iii) Floating cranes and floating derricks in use shall meet the applicable requirements for design, construction, installation, testing, maintenance, and operation as prescribed by the manufacturer.
- (3) Protection of employees working on barges. The employer shall comply with the applicable requirements for protection of employees working onboard marine vessels specified in 1926.605.

Effective Date November 9, 2010

(g) Crane or derrick suspended personnel platforms—(1) Scope, application and definitions

- (i) Scope and application. This standard applies to the design, construction, testing, use and maintenance of personnel platforms, and the hoisting of personnel platforms on the load lines of cranes or derricks.
- (ii) Definitions. For the purpose of this paragraph (g), the following definitions apply:
 - (A) "FAILURE" means load refusal, breakage, or separation of components.
 - (B) "HOIST" (or hoisting) means all crane or derrick functions such as lowering, lifting, swinging, booming in and out or up and down, or suspending a personnel platform.
 - (C) "LOAD REFUSAL" means the point where the ultimate strength is exceeded.
 - (D) "MAXIMUM INTENDED LOAD" means the total load of all employees, tools, materials, and other loads reasonably anticipated to be applied to a personnel platform or personnel platform component at any one time.
 - (E) "RUNWAY" means a firm, level surface designed, prepared and designed as a path of travel for the weight

and configuration of the crane being used to lift and travel with the crane suspended platform. An existing surface may be used as long as it meets these criteria.

(2) GENERAL REQUIREMENTS. The use of a crane or derrick to hoist employees on a personnel platform is prohibited, except when the erection, use, and dismantling of conventional means of reaching the worksite, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform or scaffold, would be more hazardous, or is not possible because of structural design or worksite conditions.

(3) CRANES AND DERRICKS—(i) OPERATIONAL CRITERIA. (A) Hoisting of the personnel platform shall be performed in a slow, controlled, cautious manner with no sudden movements of the crane or derrick, or the platform.

(B) Load lines shall be capable of supporting, without failure, at least seven times the maximum intended load, except that where rotation resistant rope is used, the lines shall be capable of supporting without failure, at least ten times the maximum intended load. The required design factor is achieved by taking the current safety factor of 3.5 (required under §1926.1414

(C) Load and boom hoist drum brakes, swing brakes, and locking devices such as pawls or dogs shall be engaged when the occupied personnel platform is in a stationary working position.

(D) The load line hoist drum shall have a system or device on the power train, other than the load hoist brake, which regulates the lowering rate of speed of the hoist mechanism (controlled load lowering). Free fall is prohibited.

(E) The crane shall be uniformly level within one percent of level grade and located on firm footing. Cranes equipped with outriggers shall have them all fully deployed following manufacturer's specifications, insofar as applicable, when hoisting employees.

(F) The total weight of the loaded personnel platform and related rigging shall not exceed 50 percent of the rated capacity for the radius and configuration of the crane or derrick.

(G) The use of machines having live booms (booms in which lowering is controlled by a brake without aid from other devices which slow the lowering speeds) is prohibited.

Inspection Report
Suspended Personnel Platform
(To be filled out before each use)

MODEL #: DATE:

SERIAL #: TIME:

- Guardrails, floor plate, toeboards free of distortion.
- Safety railing in correct condition.
- All welds free of defects.
- Wire rope 4-point suspension in correct working order.
Also are shackles properly secured with cotter keys.
- Safety latch working correctly.
- Load hook in proper condition.
- Door locks and hinges working freely.
- Identification plate and capacity markings visible.
- Roof free from distortion.
- Safety belts and lanyards for each passenger inspected:
DATE INSPECTED BY:
- Crane inspected in accordance with 26 CFR 1926.550:
DATE: INSPECTED BY:
- Crane equipped with proper safety equipment.
- Operational test of crane before lift is made.
- Load test of suspended personnel platform.
- Pre-Lift Safety Meeting.

son, direct communication alone such as by radio may be used.

(vii) Except over water, employees occupying the personnel platform shall use a body belt/harness system with lanyard appropriately attached to the lower load block or overhaul ball, or to a structural member within the personnel platform capable of supporting a fall impact for employees using the anchorage. When working over water, the requirements of §1926.106 shall apply.

(viii) No lifts shall be made on another of the crane's or derrick's loadlines while personnel are suspended on a platform.

(7) TRAVELING. (i) Hoisting of employees while the crane is traveling is prohibited, except for portal, tower and locomotive cranes, or where the employer demonstrates that there is no less hazardous way to perform the work.

(ii) Under any circumstances where a crane would travel while hoisting personnel, the employer shall implement the following procedures to safeguard employees:

(A) Crane travel shall be restricted to a fixed track or runway;

(B) Travel shall be limited to the load radius of the boom used during the lift; and

(C) The boom must be parallel to the direction of travel.

(D) A complete trial run shall be performed to rest 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 (g) (5) (i) of this section which tests the route of the lift.

(E) If travel is done with a rubber tired-carrier, the condition and air pressure of the tires shall be checked. The chart capacity for lifts on rubber shall be used for application of the 50 percent reduction of rated capacity. Notwithstanding paragraph (g) (3) (i) (E) of this section, outriggers may be partially retracted as necessary for travel.

(8) PRE-LIFT MEETING. (i) A meeting attended by the crane or derrick operator, signal person(s) (if **necessary** for the lift), employee(s) to be lifted, and the person responsible for the task to be performed shall be held to review the appropriate requirements of paragraph (g) of this section and the procedures to be followed.

(ii) This meeting shall be held prior to the trial lift at each new work location, and shall be repeated for any employees newly assigned to the operation.

(ii) INSTRUMENTS AND COMPONENTS.

(A) Cranes and derricks with variable angle booms shall be equipped with a boom angle indicator, readily visible to the operator.

(B) Cranes with telescoping booms shall be equipped with a device to indicate clearly to the operator, at all times, the boom's extended length, or an accurate determination of the load radius to be used during the lift shall be made prior to hoisting personnel.

(C) A positive acting device shall be used which prevents contact between the load block or overhaul ball and the boom tip (anti-two-blocking device), or a system shall be used which deactivates the hoisting action before damage occurs in the event of a two-blocking situation (two block damage prevent feature).

(iii) PERSONNEL PLATFORM LOADING. (A) The personnel platform shall not be loaded in excess of its rated load capacity. When a personnel platform does not have a rated load capacity then the personnel platform shall not be loaded in excess its maximum intended load.

(B) The number of employees occupying the personnel platform shall not exceed the number required for the work being performed.

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

(D) Materials and tools for use during a personnel lift shall be secured to prevent displacement.

(E) Materials and tools for use during a personnel lift shall be evenly distributed within the confines of the platform while the platform is suspended.

(iv) RIGGING.

(A) When a wire rope bridle is used to connect the personnel platform to the load line, each bridle leg shall be connected to a master link or shackle in such a manner to ensure that the load is evenly divided among bridle legs.

(B) Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be of a type that can be closed and locked, eliminating the hook throat opening. Alternatively, an alloy anchor type shackle with a bolt, nut and retaining pin may be used.

(C) Wire rope, shackles, rings, master links and other rigging hardware must be capable of supporting, without

failure, at least five (5) times the maximum intended load applied or transmitted to that component. Where rotation resistant rope is used, the slings shall be capable of supporting without failure at least ten times the maximum intended load.

(D) All eyes in wire rope slings shall be fabricated with thimbles.

(E) Bridles and associates rigging for attaching the personnel platform to the hoist line shall be used only for the platform and the necessary employees, their tools and the materials necessary to do their work, and shall not be used for any other purpose when not hoisting personnel.

(5) TRIAL LIFT, INSPECTION, AND PROOF TESTING.

(i) A trial lift with the unoccupied personnel platform loaded at least to the anticipated liftweight shall be made from ground level, or any other location where employees will enter the platform, to each location at which the personnel platform is to be hoisted and positioned. This trial lift shall be performed immediately prior to placing personnel on the platform. The operator shall determine that all systems, controls and safety devices are activated and functioning properly; that no interferences exist; and that all configurations necessary to reach those work locations will allow the operator to remain under the 50 percent limit of the hoist's rated capacity. Materials and tools to be used during the actual lift can be loaded in the platform, as provided in paragraphs (g) (4) (iii) (D) and (E) of this section for the trial lift. A single trial lift may be performed at one time for all locations that are to be reached from a single set up position.

(ii) The trial lift shall be repeated prior to hoisting employees whenever the crane or derrick is moved and set up in a new location or returned to a previously used location. Additionally, the trial lift shall be repeated when the lift route is changed unless the operator determined that the route change is not significant (i.e.) the route change would not affect the safety of hoisted employees.)

(iii) After a trial lift, and just prior to hoisting personnel, the platform shall be hoisted a few inches and inspected to ensure that it is secure and properly balanced. Employees shall not be hoisted unless the following conditions are determined to exist:

(A) Hoist ropes shall be free of kinks;

(B) Multiple part lines shall not be twisted around each other;

(C) The primary attachment shall be centered over the platform; and

(D) The hoisting system shall be inspected if the load rope is slack to ensure all ropes are properly seated on drums and in sheaves.

(iv) A visual inspection of the crane or derrick, rigging, personnel platform, and the crane or derrick base support or ground shall be conducted by a competent person immediately after the trial lift to determine whether the testing has exposed any defect or produced any adverse affect upon any component or structure.

(v) Any defects found during inspections which create a safety hazard shall be corrected before hoisting personnel.

(vi) At each job site, prior to hoisting employees on the personnel platform, and after any repair or modification, the platform and rigging shall be proof tested to 125 percent of the platform's rated capacity by holding it in a suspended position for five minutes with the test load evenly distributed on the platform (this may be done concurrently with the trial lift). After proof testing, a competent person shall inspect the platform and rigging. Any deficiencies found shall be corrected and another proof test shall be conducted. Personnel hoisting shall not be conducted until the proof testing requirements are satisfied.

(6) WORK PRACTICES. (i) Employees shall keep all parts of the body inside the platform during raising, lowering, and positioning. This provision does not apply to an occupant of the platform performing the duties of a signal person.

(ii) Before employees exit or enter a hoisted personnel platform that is not landed, the platform, shall be secured to the structure where the work is to be performed, unless securing to the structure creates an unsafe situation.

(iii) Tag lines shall be used unless their use creates an unsafe condition.

(iv) The crane or derrick operator shall remain at the controls at all times when the crane engine is running and the platform is occupied.

(vi) Employees being hoisted shall remain in continuous sight of or in direct communication with the operator or signal person. In those situations where direct visual contact with the operator is not possible, and the use of a signal person would create a greater hazard for that per-