

Equipment Inspection for Mobile Equipment/Maintenance Equipment	Document No.: RSW-SAF-016-DT	Approval Date: 2-17-20	Page 1 of 13
	Revision No.: 9	Next Revision Date: 12-19-24	
	Document Custodian: Environmental, Safety and Security		

1.0 PURPOSE

1.1 The purpose of this procedure is to establish specific requirements to be used when inspecting mobile and maintenance equipment.

2.0 SCOPE

2.1 This procedure applies to equipment owned or operated by Marathon employees.

2.2 Mobile equipment includes/applies to mobile cranes, forklifts, aerial work platforms and the fuel truck.

3.0 GUIDELINE

3.1 DOCUMENTATION

3.1.1 Documentation for equipment inspections shall be retained per the Records Retention Policy and located in the applicable Maintenance files.

3.2 MOBILE CRANE/CARRY DECK

3.2.1 A qualified person must be designated to perform all inspections of cranes and derricks and as required by this procedure.

3.2.2 An employee shall maintain the equipment and its accessories in a condition that will not endanger the operator or other employees.

3.2.3 The original safety factor of the equipment shall not be reduced if modifications or changes are made to the equipment. Modifications or changes shall be certified by a qualified registered engineer. The capacity, operation, and maintenance instruction plates, tags or decals shall be changed accordingly to reflect any modifications or changes.

3.2.4 Cranes and carry decks shall be equipped with an audible signaling device (horn) and seat belt.

3.2.5 All of the following applicable items on a crane shall be inspected on a daily basis unless the equipment will not be used. Document the inspection using the form found at this link [EQUIPMENT AND VEHICLE INSPECTIONS](#).

3.2.5.1 All control mechanisms for mis-adjustments that interfere with the proper operation of the equipment and for excessive wear of components and contamination by lubricants or other foreign matter.

3.2.5.2 All chords and lacing.

3.2.5.3 All safety devices.

3.2.5.4 Air or hydraulic systems for deterioration or leakage.

3.2.5.5 Hydraulic and pneumatic hose, fittings, and tubing shall be inspected for all of the

following:

- 3.2.5.5.1 Evidence of leakage at the surface of the flexible hose or its junction with the couplings.
- 3.2.5.5.2 Blistering or abnormal deformation to the outer covering of the hydraulic or pneumatic hose.
- 3.2.5.5.3 Leakage at threaded or clamped joints that cannot be eliminated by normal tightening or by recommended procedures.
- 3.2.5.5.4 Evidence of excessive abrasion or scrubbing on the outer surface of a hose, rigid tube or fitting. Means shall be taken to eliminate the interference of components with each other.
- 3.2.5.6 Hooks for deformation or cracks or missing latches
- 3.2.5.7 The plumb of the mast.
- 3.2.5.8 In addition, an operator of a crane or derrick shall observe the machinery for any defects or hazards that might appear during operation.
- 3.2.5.9 Any structural or functional defect or other hazard that would adversely affect the safe operation of the equipment shall be corrected before operations begin or continue.
- 3.2.6 Complete inspections of cranes shall be performed every six months by a qualified person. The six month inspection shall include the following items:
 - 3.2.6.1 Identify deformed, cracked or corroded members in the equipment structure and entire boom.
 - 3.2.6.2 Identify loose bolts or rivets.
 - 3.2.6.3 Identify cracked or worn sheaves and drums.
 - 3.2.6.4 Identify worn, cracked or distorted parts, including any of the following:
 - Pins.
 - Bearings.
 - Shafts.
 - Gears.
 - Rollers.
 - Locking devices.
 - 3.2.6.5 Excessive wear on brake and clutch systems parts, linings, pawls, and ratchets.
 - 3.2.6.6 Significant inaccuracies in the load, boom angle, and other indicators over the full range of the indicators.
 - 3.2.6.7 Excessive wear of chain-drive sprockets and excessive chain stretch.
 - 3.2.6.8 Cracks in the crane hooks.
 - 3.2.6.9 Malfunction in travel steering, braking, and locking devices.
 - 3.2.6.10 Excessively worn or damaged tires.
 - 3.2.6.11 All of the following for cracks in hydraulic and pneumatic hoses, fittings, and tubing:
 - 3.2.6.11.1 Evidence of leakage at the surface of the flexible hose or its junction with the metal end couplings.

- 3.2.6.11.2 Blistering or abnormal deformation to the outer covering of the hydraulic or pneumatic hose.
- 3.2.6.11.3 Leakage at threaded or clamped joints that cannot be eliminated by normal tightening or recommended procedures.
- 3.2.6.11.4 Evidence of excessive abrasion or scrubbing on the outer surface of a hose, rigid tube or fitting. Steps shall be taken to prevent components from interfering with each other.
- 3.2.6.12 All of the following for hydraulic and pneumatic pumps and motors:
- Loose belts or fasteners.
 - Leaks at joints between sections.
 - Shaft seal leaks.
 - Unusual noises or vibration
 - Loss of operating speed.
 - Excessive heating of the fluid.
 - Loss of pressure.
- 3.2.6.13 All of the following for hydraulic and pneumatic valves:
- Cracks in the valve housing.
 - Improper return of the spool to the neutral position.
 - Leaks at spools or joints.
 - Sticking spools.
 - Proper relief valve pressures as specified by the manufacturer.
- 3.2.6.14 All of the following for hydraulic and pneumatic cylinders:
- Drifting caused by fluid leaking past the piston.
 - Rod seals leaking.
 - Leaks at welded joints.
 - Scored, nicked or dented piston rods.
 - Dented case (barrel).
 - Loose or deformed rod end or connecting joints.
- 3.2.6.15 Evidence of rubber particles or metal chips on the filter elements of hydraulic filters.
- 3.2.7 A crane or that has been idle for a period of one month or more, but less than six months, shall be given an inspection that is in compliance with the requirements of Section E of this procedure before being placed in service.
- 3.2.8 A crane or that has been idle for a period of more than six months shall be given a complete inspection that is in compliance with the requirements in Section F before being placed in service.
- 3.2.9 Wire Rope Inspection
- 3.2.9.1 A running wire rope that is in continuous service shall be visually inspected once each working day. A visual inspection shall consist of observing all rope that can be expected to be in use during the day's operations. The purpose of the visual observations shall be to discover any of the following damage that may be an immediate hazard:
- 3.2.9.1.1 Any distortion of the rope, including any of the following:

- Kinking.
- Crushing.
- Unstranding.
- Birdcaging.
- Main strand displacement.
- Core protrusion.

3.2.9.1.2 General corrosion.

3.2.9.1.3 Broken or cut strands.

3.2.9.1.4 Number, distribution, and type of visible broken wires. When damage is discovered, the rope shall either be removed from service or given an inspection per this procedure.

3.2.9.1.5 Damage to flange points, crossover points, and repetitive pickup points on drums.

3.2.9.2 Wire rope shall be inspected every six months for the following:

- Expected rope life as determined through experience on the particular installation or similar installations.
- Severity of the environment.
- Percentage of capacity lifts.
- Frequency rates of operation.
- Exposure to shock loads.

3.2.9.3 Inspections need not be at equal calendar intervals and shall be more frequent as the rope approaches the end of its useful life.

3.3 AERIAL WORK PLATFORMS (Reference RSW-SAF-011-DT)

3.3 POWERED INDUSTRIAL TRUCKS (FORKLIFTS)

3.3.1 Any power-operated industrial truck not in safe operating condition shall be removed from service.

3.3.2 Those repairs to the fuel and ignition systems of industrial trucks, which involve fire hazards, shall be conducted only in locations designated for such repairs.

3.3.3 Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.

3.3.4 All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design.

3.3.5 Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counter-weighting of fork trucks shall not be done unless approved by the truck manufacturer.

3.3.6 Industrial trucks shall be examined before being placed in service and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Document inspections using the form found at this link, [EQUIPMENT AND VEHICLE INSPECTIONS](#).

- 3.3.7 Where industrial trucks are used on a round-the-clock basis, they shall be examined before each regularly scheduled shift. Defects, when found, shall be immediately reported and corrected.
- 3.3.8 Any vehicle that emits hazardous sparks or flames from the exhaust system shall immediately be removed from service and not returned to service until the cause for the emission of such sparks and flames has been eliminated.
- 3.3.9 When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until the cause for such overheating has been eliminated.
- 3.3.10 Industrial trucks shall be kept in a clean condition.
- 3.3.11 Industrial truck shall be equipped with an audible device (horn) to warn of approach.

3.4 FUEL TRUCK

- 3.4.1 A record of the fuel truck must be maintained and include the following:
- 3.4.1.1 An identification of the vehicle including company number, make, serial number, year, and tire size.
- 3.4.1.2 A means to indicate the nature and due date of the various inspection and maintenance operations to be performed.
- 3.4.1.3 A record of inspection, repairs, and maintenance indicating their date and nature.
- 3.4.2 The records shall be retained for a period of one year.
- 3.4.3 The driver shall prepare a report in writing at the completion of each day and the report shall cover at least the following parts and accessories:
- Service brakes including trailer brake connections:
 - Parking (hand) brake
 - Steering mechanism
 - Lighting devices and reflectors
 - Tires
 - Horn
 - Windshield wipers
 - Rear vision mirrors
 - Coupling devices
 - Wheels and rims
 - Emergency equipment
- 3.4.4 The report shall identify the motor vehicle and list any defect or deficiency discovered by or reported to the driver, which would affect safety or operation of the motor vehicle or result in its mechanical breakdown. If no defect or deficiency is discovered by or reported to the driver, the report shall so indicate. In all instances, the driver shall sign the vehicle inspection report.
- 3.4.5 Prior to operating a motor vehicle, any items listed on the vehicle inspection report that would be likely to affect the safety of operation of the vehicle must be repaired.

- 3.4.6 The report shall certify that the defects or deficiencies have been corrected or that the correction is unnecessary before the vehicle is again used.
- 3.4.7 The original copy of each vehicle inspection report and the certification repairs must be retained for at least three months from the date the report was prepared. A legible copy of the last vehicle inspection report shall be carried on the vehicle.
- 3.4.8 Before driving the motor vehicle, the driver shall:
- 3.4.8.1 Be satisfied that the motor vehicle is in safe operating condition.
- 3.4.8.2 Review the last vehicle inspection report required to be carried on the power unit.
- 3.4.8.3 Sign the report, only if defects or deficiencies were noted by the driver who prepared the report, to acknowledge that the driver has reviewed it and that there is a certification that the required repairs have been performed.
- 3.4.9 The fuel truck shall not be used unless each component has passed the annual requirements at least once during the preceding 12 months and documentation of such inspection is on the vehicle.
- 3.4.10 The individual's qualifications shall be retained for the period during which that individual is performing annual motor vehicle inspections and for one year thereafter.
- 3.4.11 The annual inspection shall be performed by a qualified inspector who shall prepare a report which:
- Identifies the individual performing the inspection.
 - Identifies the motor carrier operating the vehicle.
 - Identifies the date of the inspection.
 - Identifies the vehicle inspected.
 - Identifies the vehicle components inspected and describes the results of the inspection, including the identification of those components not meeting the minimum standards.
 - Certifies the accuracy and completeness of the inspection as complying with all the requirements of this section.
- 3.4.12 The original or a copy of the inspection report shall be retained for the inspection for a period of 14 months from the date of the inspection report. The original or a copy of the inspection report shall be retained where the vehicle is either housed or maintained.
- 3.4.13 All inspections, maintenance, repairs or service to the brakes of its commercial motor vehicles must be performed in compliance with the requirements of this section.
- 3.4.14 An Individual who meets the minimum brake inspector qualifications shall be responsible for the inspection, maintenance, service or repairs of any brakes.
- 3.5 MOTOR VEHICLES (Mobile Cranes, Forklifts)
- 3.5.1 Brake systems shall be maintained in operable condition.
- 3.5.2 Whenever visibility conditions warrant additional light, all vehicles or combinations of vehicles in use shall be equipped with at least two headlights and two taillights in operable condition.
- 3.5.3 All vehicles or combination of vehicles shall have brake lights in operable condition

regardless of light conditions.

- 3.5.4 Certain vehicles shall be equipped with an adequate audible warning device at the operator's station and in an operable condition.
- 3.5.5 No employee shall use any mobile equipment having an obstructed view to the rear unless:
 - 3.5.5.1 The vehicle has a reverse signal alarm audible above the surrounding noise level.
 - 3.5.5.2 The vehicle is backed up only when an observer signals that it is safe to do so.
- 3.5.6 All mobile equipment with cabs shall be equipped with windshields and powered wipers. Cracked and broken glass shall be replaced. Vehicles operating in areas or under conditions that cause fogging or frosting of the windshields shall be equipped with operable defogging or defrosting devices.
- 3.5.7 Vehicles used to transport employees shall have seats firmly secured and adequate for the number of employees to be carried.
- 3.5.8 Trucks with dump bodies shall be equipped with positive means of support, permanently attached, and capable of being locked in position to prevent accidental lowering of the body while maintenance or inspection work is being done.
- 3.5.9 Trip handles for tailgates of dump trucks shall be so arranged that, in dumping, the operator will be in the clear.
- 3.5.10 All vehicles in use shall be checked at least monthly to assure that the following parts, equipment, and accessories are in safe operating condition and free of apparent damage that could cause failure while in use: service brakes, including trailer brake connections; parking system (hand brake); emergency stopping system (brakes); tires; horn; steering mechanism; coupling devices; seat belts; operating controls; and safety devices. All defects, which cannot be immediately corrected, must be reported to the applicable Foreman/Supervisor who will determine serviceability. These requirements also apply to equipment such as lights, reflectors, windshield wipers, defrosters, etc., where such equipment is necessary.

3.6 MOTOR VEHICLES (Pickup Trucks and Vans)

- 3.6.1 Brake systems shall be maintained in operable condition.
- 3.6.2 Whenever visibility conditions warrant additional light, all vehicles in use shall be equipped with at least two headlights and two taillights in operable condition.
- 3.6.3 All vehicles or combination of vehicles shall have brake lights in operable condition regardless of light conditions.
- 3.6.4 Vehicles operating in areas or under conditions that cause fogging or frosting of the windshields shall be equipped with operable defogging or defrosting devices.
- 3.6.5 Vehicles used to transport employees shall have seats firmly secured and adequate for the number of employees to be carried.
- 3.6.6 All vehicles in use shall be checked at least monthly to assure that the following parts,

equipment, and accessories are in safe operating condition and free of apparent damage that could cause failure while in use: service brakes, including trailer brake connections; parking system (hand brake); emergency stopping system (brakes); tires; horn; steering mechanism; seat belts; operating controls; and safety devices. All defects, which cannot be immediately corrected, must be reported to the applicable Foreman/Supervisor who will determine serviceability. These requirements also apply to equipment such as lights, reflectors, windshield wipers, defrosters, etc., where such equipment is necessary.

3.7 FLOOR JACKS

- 3.7.1 The operator shall make sure that the jack used has a rating sufficient to lift and sustain the load.
- 3.7.2 The rated load shall be legibly and permanently marked in a prominent location on the jack by casting, stamping or other suitable means.
- 3.7.3 In the absence of a firm foundation, the base of the jack shall be blocked. If there is a possibility of slippage of the cap, a block shall be placed in between the cap and the load.
- 3.7.4 The operator shall watch the stop indicator, which shall be kept clean, in order to determine the limit of travel. The indicated limit shall not be overrun.
- 3.7.5 After the load has been raised, it shall be cribbed, blocked or otherwise secured at once.
- 3.7.6 Hydraulic jacks shall be properly lubricated at regular intervals.
- 3.7.7 Each jack shall be thoroughly inspected every six months and as follows:
 - 3.7.7.1 For jacks sent out for special repair or modification, when sent out and when returned.
 - 3.7.7.2 For a jack subjected to abnormal load or shock, immediately before and immediately thereafter.
- 3.7.8 Repair or replacement parts shall be examined for possible defects.
- 3.7.9 Jacks that are out of order shall be tagged accordingly and shall not be used until repairs are made.

3.8 SLINGS AND RIGGING EQUIPMENT

- 3.8.1 A sling and all fastenings shall be inspected for damage and defects by a designated employee before each day's use.
- 3.8.2 Where service conditions warrant, additional inspections shall be performed during sling use.
- 3.8.3 A damaged or defective sling, as described in this part, shall be immediately removed from service.
- 3.8.4 Wire rope shall be taken out of service if any of the following conditions exist:
 - 3.8.4.1 Wear of $\frac{1}{8}$ the original diameter of outside individual wires.

- 3.8.4.2 Kinking, crushing, bird caging or any other damage resulting in distortion of the rope structure, except for deformation caused by normal methods of attachment to drums, hooks, shackles or other accessories.
- 3.8.4.3 Evidence of any heat damage from any cause.
- 3.8.4.4 Reductions from nominal diameter of more than 1/64-inch for diameters up to and including 5/16-inch, 1/32-inch for diameters M-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 O-inch to 1-Δ-inches inclusive, 3/32-inch for diameters 1-1/4 to 1-1/2-inches inclusive.
- 3.8.4.5 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.
- 3.8.5 The defective portion of a wire rope and any areas of deformation caused by normal methods of attachment of a wire rope, removed per this procedure, shall not be used for other load carrying service.
- 3.8.6 Hook shall have a rated capacity equal to the chain or rope to which it is attached, and the load shall not exceed the rated load. Shackles and other accessories shall have a rated capacity equal to or greater than the load to which it is attached.
- 3.8.7 A hook shall be discarded if:
- 3.8.7.1 The throat opening is more than 15% greater than the manufactured size.
- 3.8.7.2 The hook has more than 10° twist from a vertical center line drawn through the hook center.
- 3.8.8 Each synthetic web sling shall be marked or coded to show the rated capacities for each type of hitch and type of synthetic web material.
- 3.8.9 Synthetic webbing shall be of uniform thickness and width, and selvage edges shall not be split from the webbing's width.
- 3.8.10 A synthetic web sling shall be immediately removed from service if any of the following conditions are present:
- Acid or caustic burns.
 - Melting or charring of any part of the sling surface.
 - Snags, punctures, tears or cuts.
 - Broken or worn stitches.
 - Distortion of fittings.
- 3.8.11 A synthetic web sling shall be repaired only by a sling manufacturer. Temporary repairs are not permitted.
- 3.9 OVERHEAD CRANES (HOISTS)
- 3.9.1 Overhead cranes and their accessories shall be maintained in a condition that will not endanger an operator or other employee.
- 3.9.2 An unsafe condition on a crane determined by an inspection shall be corrected by a designated trained employee or an outside crane service company before the crane is put into operation.
- 3.9.3 At the beginning of each shift during which a crane is used, visual inspections shall be

made in accordance with the following table. A visual inspection shall be limited to that which can be made from a catwalk or other safe observation point. These inspections shall be documented on the form found at this link, [EQUIPMENT AND VEHICLE INSPECTIONS](#).

- 3.9.4 Monthly and yearly inspections shall be made in accordance with [Table 1](#) (see Attachment 1). Before use, an outdoor crane or a crane used in a corrosive atmosphere, which has been idle for more than one month, shall be inspected for all items on [Table 1](#). Conditions of extreme duty cycle, heat, and corrosive or climatic extremes shall indicate a need for more frequent inspections before use.
- 3.9.5 Before adjustments or repairs are commenced on a crane, the following precautions shall be taken:
- 3.9.5.1 A crane to be repaired shall be moved to a location where it will cause the least interference with other moving equipment on the track or rails and operations in the area.
- 3.9.5.2 Controllers shall be placed in the "off" position.
- 3.9.5.3 The main switch shall be placed in the "off" or "open" position and locked, except where power is necessary to adjust or service the crane.
- 3.9.5.4 A warning or "out of order" sign shall be placed at the operator control station.
- 3.9.5.5 Illumination of not less than 15 foot candles intensity shall be provided while maintenance is performed on a crane.
- 3.9.6 Where any other crane uses the same runway, a protective device shall be used to prevent interference with the idle crane undergoing repairs. Where the protective device is impracticable, a signal man shall be placed at a visual vantage point to warn the operator of the active crane when it reaches the limit of safe distance from the idle crane.
- 3.9.7 A crane that has been adjusted or repaired shall not be returned to normal operation until all guards have been replaced, locks removed by those who installed them or their supervisor, safety devices reactivated, and the maintenance equipment removed.
- 3.9.8 An accumulation of dirt on a crane that would create a hazardous condition shall be removed.
- 3.9.9 Before a new or modified crane is put into operation or if a crane has not been used in the past 12 months, the equipment shall be tested to ensure compliance with this part, including the following functions:
- Hoisting and lowering.
 - Trolley travel.
 - Bridge travel.
 - Travel limiting devices.
- 3.9.10 The trip setting of a hoist limit switch shall be determined with an empty hook traveling in increasing speeds up to the maximum speed. The actuating mechanism of the limit switch shall be located so that it will trip the switch, under all conditions, in time to prevent contact of the hook or hook block with the trolley.
- 3.9.11 When a crane is given a load test, the test load shall be not more than 125% of the rated load. The test reports shall be maintained on file within the premises where the crane is located.

3.10 ELECTRICIANS' INSULATING EQUIPMENT

3.10.1 Electrical protective equipment shall be maintained in a safe, reliable condition.

3.10.2 The following specific requirements apply to insulating blankets, covers, line hose, gloves, and sleeves made of rubber:

3.10.2.1 Insulating equipment shall be inspected for damage before each day's use and immediately following any incident that can reasonably be suspected of having caused damage. Insulating gloves shall be given an air test, along with the inspection.

3.10.2.2 Insulating equipment with any of the following defects may not be used:

- A hole, tear, puncture or cut.
- Ozone cutting or ozone checking (the cutting action produced by ozone on rubber under mechanical stress into a series of interlacing cracks).
- An embedded foreign object.
- Any of the following texture changes: swelling, softening, hardening or becoming sticky or inelastic.
- Any other defect that damages the insulating properties.
- Insulating equipment found to have other defects that might affect its insulating properties shall be removed from service and returned for testing.

3.10.2.3 Insulating equipment shall be stored in such a location and in such a manner as to protect it from light, temperature extremes, excessive humidity, ozone, and other injurious substances and conditions.

3.10.2.4 Electrical protective equipment shall be subjected to periodic electrical tests. Test voltages and the maximum intervals between tests shall be in accordance with the following table:

RUBBER INSULATING EQUIPMENT INTERVALS	
TYPE OF EQUIPMENT	WHEN TO TEST
Rubber Insulating line hose:	Upon indication that insulating value is suspect.
Rubber insulating covers:	Upon indication that insulating value is suspect.
Rubber insulating blankets:	Before first issue and every 12 months thereafter. ¹
Rubber insulating gloves:	Before first issue and every 6 months thereafter. ¹
Rubber insulating sleeve:	Before first issue and every 12 months thereafter. ¹
NOTE: ¹ If the insulating equipment has been electrically tested, but not issued for service, it may not be placed into service unless it has been electrically tested within the previous 12 months.	

4.0 DEFINITIONS

4.1 There are no definitions relevant to this procedure.

5.0 REFERENCES

REGULATORY REFERENCE

EQUIPMENT	OSHA	MIOSHA	ANSI
Mobile Crane/Carry Deck	1910.179(j) 1926.550(b)(2) 1926.952(a)	408.41006a(2) 408.41012a 408.41013a	
Floor Jacks	1910.224(a)(2)	408.41966	B30.1-1943
Ladders	1926.26	408.4112 408.10443	A14.2-1956
Slings and Rigging Equipment	1910.184(d)	408.40832 408.14912	N/A
Overhead Crane	1910.179(j) & (m)	408.11871 408.11872	B30.20-1996
Powered Industrial Trucks (Forklifts)	1910.178(q)(7)	Rule 3225	B56.1-1969
Electricians Gloves & Blankets	1910.137 1910.268(f)	408.40641	J6.6-1971
Fuel Truck (DOT)	49CFR 393.75 49 CFR 397.17(a) Tightness test - 49 CFR 396.17		

6.0 ATTACHMENTS

6.1 [Attachment 1: Table 1 – Minimum Inspection Schedule for Overhead Cranes \(Hoists\)](#)

7.0 REVISION HISTORY

Revision number	Description of change	Written by	Checked by	Effective date
5	Update review date	F. Ebbert	L. Mazur	11/17/11
6	Added inspection requirements	E. Chase	S. Windom	8/21/13
7	Removed ladder inspection section. It already exists in the Fall Protection Procedure.	M. Godfrey	J. Rabideau	1/8/15
8	Scheduled review, no changes	T. Brown	A. Morales	12/20/19
9	Added links to mobile equipment inspection forms	B. Dibert	A. Morales	2/17/2020

**TABLE 1
MINIMUM INSPECTION SCHEDULE
OVERHEAD CRANES (HOISTS)**

ITEM	DAILY	QUARTERLY	YEARLY
Operating Mechanisms	Visual for function	Check for wear, distortion, and fractures	
Limit Switches	Visual & operational for function	Check for adjustment and wear	
Air Systems	Visual for leaks	Visual for leaks	
Hydraulic Systems	Visual for leaks	Visual for leaks and abrasions	
Hooks	Visual for deformation and cracks		
Chains	Visual for wear, elongation, and twist	Measure for wear and elongation	
Wire Rope	Visual for wear, broken wire, kinks	Measure for wear	
Slings	Visual for wear, broken wire, kinks	Measure for wear	
Rope Reeving	Visual for proper seating in drum and sheave groves	Visual for proper seating in drum and sheave groves	
Chain Drive Sprockets			Check for wear
Drive Chain		Check for stretch	
Brake System		Check for adjustment and wear	
Sheaves			Check for wear and cracks
Drums			Check for wear and cracks
Fasteners		Check for tightness	
Electrical Apparatus		Check electrical components for function, loose connections & deterioration	
Lock and Clamp Mooring Devices		Visual for function and wear	Check for wear, distortion, and fractures
Power Plants		Performance and safety requirements	