



ARL EQUIPMENT MANAGEMENT STANDARD OPERATING PROCEDURE

ARL EQUIPMENT MANAGEMENT SOP

APPENDIX J LIFTING DEVICES

REFERENCES:

1. TB 43-0142
2. Occupational Safety and Health Act (OSHA) of 1970 and the standards adopted therein, Department of Labor (OSHA Standards are available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402).
3. Ars 385-10,385-40,750-1
4. TMs 5-725, and 9-1300-206
5. TBs 43-0142, 9-352, 9-1100-804-15, and 43-0209
6. DA PAM 750-1

PURPOSE:

This appendix prescribes responsibilities, procedures, and guidance for implementing the requirements of the Occupational Safety and Health Act (OSHA) of 1970, as amended to date, to be used in the accomplishment of safety inspections and testing of lifting devices.

GENERAL:

Lifting devices are considered any device or component used to raise, lower, hold, or position a load from one location or elevation to another. Examples of lifting devices include forklift trucks, cranes, manual or motorized pallet jacks, hoists, wreckers, A-frames, slings, ropes, wire ropes, hooks, O-rings, pear rings, spreader bars or lifting clamps, beams, jacks, safety stands, and jack stands. Lifting fixtures are considered any device or assembly of devices used to facilitate attachment of a load to a lifting device. Examples of lifting fixtures include an H-beam with nylon slings, wire rope with spreader bars or rope with lifting clamps.

Testing:

1. Prior to initial use, all new, extensively repaired, or altered lifting devices shall be given a rated load test. Inspections will be performed using authorized maintenance personnel or a maintenance activity in accordance with (IAW) TB 43-0142 who will provide the organization with written certification of load testing to the using activity.
2. Prior to initial use, all new, extensively repaired, or altered lifting devices shall be given a functional test to determine operability of the equipment. Functional testing requirements are indicated in the applicable appendix of TB 43-0142. Before performing the functional test, the proper operation of brakes and limit, locking, and other safety devices shall be tested under no-load conditions.
3. Lifting devices that have been idle for 1 year or more shall be functionally tested at 100 percent of the rated load prior to use.
4. In the event of a load test failure the device will be Locked Out/Tagged Out (LO/TO) IAW

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with the Organizational LO/TO SOP and be properly marked to alert all personnel to ensure their safety. When a LO/TO occurs, an email will be sent to the Safety Office with copy to the branch chief, his/her supervisor and the stationary equipment manager to ensure the proper maintenance personnel are notified to have the equipment repaired.

Inspections:

1. All lifting devices will be inspected periodically at the specified intervals IAW TB 43-0142/OSHA standards.
2. Any device found not to be within tolerance with the applicable technical manual or technical bulletin will be LO/TO and repaired ASAP or turned in.
3. Any item deemed uneconomically repairable will be turned in to Defense Logistics Agency Disposition Services or disposed of to ensure it can no longer be used and is not a threat to the personnel safety.
4. All chain slings, nylon straps and wire ropes will be inspected for serviceability by the operator prior to use, monthly and annual IAW TB 43-0142 and 29 CFR 1910.184I(3)(i)&(ii). All documentation will be kept at the work site.
 - a. Daily inspection of lifting devices shall be performed by the operator before use. Also prior to use, lifting devices that have been idle for 1 month or more, but less than 6 months, will be given an inspection in accordance with daily inspection criteria, plus a thorough, documented inspection of wire ropes, crane hooks, and crane hoist chains in accordance with the criteria in Appendix A, paragraph A-2 of TB 43-0142. Daily inspections should comply with the criteria specified in the appropriate technical manual for the device or the applicable appendix of TB 43-0142. Manufacturer's manuals will also be used for commercial equipment as available.
 - b. For cranes, monthly documented inspections shall be conducted on critical items in use such as hooks, wire ropes, brakes, and hoist chains. Operator or Unit Maintenance personnel who are technically experienced and qualified may be designated to perform these inspections. Specific inspection requirements are indicated in Appendix A of TB 43-0142.
 - c. Periodic inspections shall be conducted by unit maintenance personnel, assisted by operator/crew personnel, at least every 12 months and prior to the use of lifting devices which have been idle for 6 months or more. Periodic inspection criteria found in the appropriate appendix of TB 43-0142, manufacturer's documentation, and applicable equipment TMs shall be used to determine serviceability of the equipment.
 - d. Periodic inspections of lifting devices for handling hazardous materials such as ammunition and explosives, molten metals, acids, strong caustics, and flammable and toxic materials shall include a functional test. The periodic inspection and functional test procedures shall be repeated before handling any load heavier than that lifted in the last functional test. The heaviest load shall never exceed the load rating of the lifting device.
 - e. Inspection and test results shall become part of the maintenance record of the lifting device. All other inspection records for lifting devices will be kept at the job site and maintained by the end user and their supervisor.

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RESPONSIBILITIES:

1. SUPERVISOR: The supervisor is responsible to ensure employees are trained and licensed on the equipment they are operating. They must also ensure operators are performing daily preventative maintenance checks and services (PMCS), prior to use inspections and documenting them.
2. OPERATOR: The operator is responsible for the safe operation of the equipment, operator level PMCS and documenting that all checks are performed at the proper intervals.
3. EQUIPMENT MANAGEMENT CELL (EMC): The EMC will ensure load testing is completed before a new item is issued to the customer, after major repairs to the lift systems or when modifications are made. They will also track the annual inspections of lifting devices with the exception of ropes, straps, slings and chains.