

Manual Section <b>7</b>	Issue Date 04/16/12	Revision Date 01/01/24	Policy Number LLCP-064
	<b>Dropped Objects</b>		

**PURPOSE**

There is a significant risk of dropped objects when using tools and portable equipment at height and a large number of such incidents are regularly reported. To that end, the Company requires employees to take an inventory of equipment with the potential to become Dropped Objects during tasks and address them on the JSEA.

To combat this problem, it is recommended that all tools and equipment used at height are identified, secured against falling, and inspected prior to being used for the required task. The following information provides the Company’s recommended Best Practice for the safe use of tools and portable equipment at height. The supervisor is responsible for assuring that this Dropped Objects Policy is followed and the Dropped Objects Checklist is completed on site.

**SCOPE**

All LLC Companies including, Blanchard Industrial, LLC, GIS Engineering, LLC, Grand Isle Shipyard, Inc., and GWIS, Mack Steel, NuWave, Sun Industries, Valvemax, Discovery Industries, Inc.; hereafter identified as “Company”.

**GENERAL**

The following general recommendations should be observed when using tools/equipment at height:

- Tools and portable equipment used at height shall be adequately secured to either the user or the workplace.
- Tools used at height shall have a lanyard attachment point that does not compromise the tool’s effectiveness.
- All tools, lanyards and attachment points shall be inspected prior to use and prior to their return to the tool house, to ensure they are fit for purpose.
- Do not modify any tools or securing equipment.
- “At height” tools shall be used for all tasks undertaken at 6 feet or above, or where there is the potential for tools to drop more than 6 feet, (i.e. when working at or near a handrail.)
- Any deviation from recommended best practice shall be undertaken through a documented MOC (management of change) procedure.
- All personnel working at height and/or using “at height” compliant tools shall be adequately trained.
- If any tool or equipment is dropped, or if the retention system failed such that there was potential for the tool or equipment to drop, it must be reported immediately.
- While work at height is ongoing, the “Drop Zone” below the worksite shall be barricaded off.

**TOOLING SPECIFICS**

The following recommendations relate to specific tools and tool types used at height:

- Multi-part tools shall have systems to prevent separation (i.e. sockets must be locked onto extension bars, knuckles, ratchets and breaker bars; it must be impossible to remove jaws from shifters or pliers etc.).
- All hammers shall have steel or steel composite shafts, non-slip handles and a head locking mechanism to prevent separation of the head from the shaft.
- Cold chisels and associated hand protecting guards shall have retention in place for both chisel and guard.
- Sockets, extensions and ratchets etc. should be pin locked.

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## **LANYARDS AND ATTACHMENT POINTS**

The following represents best practice for lanyards and attachment points:

- All tooling used ‘at height’ shall be lanyard attached to a tool bag, the equipment loop on the harness or the workplace. As such, tooling should be manufactured and supplied with tested and certified lanyard attachment points.
- The lanyard attachment point on the tool must still enable the tool to be used effectively.
- The length of lanyard wire should be appropriate to the unhindered function of the tool, and the tool and wire shall have been tested and proven to withstand a drop of double the lanyard length.
- All lanyards should be fitted with Screw gate rated carabineers. For hand tools  $\geq 10$  lbs, weight-rated carabineers should be used.
- All carabineers, lanyards and shackles shall be marked and traceable.
- All lanyards shall be serial numbered and have date of manufacture. This will enable user to assess age and condition in an objective manner.
- All wire lanyard terminations should be designed to avoid potential hand injury due to protruding wire tails.
- The standard use of wrist lanyards is discouraged, however, it is recognized that they may be appropriate to specific tasks, i.e. within confined spaces.
- The lanyard attachment points on tools should be manufactured in such a way that they cannot be removed.
- For tools and equipment  $\geq 10$  lbs, a minimum 4mm certified wire is recommended.

## **HEAVY TOOLS AND EQUIPMENT ( $\geq 10$ lbs)**

When using heavy tools at height, weighing 10 lbs or more, the following should be observed:

- The use of heavy tools and hand-held machinery at height must be specifically risk assessed.
- All heavy tools and hand-held machines used at height must be secured against falling when in use and while being transported.
- Securing devices must be dimensioned in accordance with verifiable calculations and documented free-fall tests.
- If a heavy tool or item of equipment has fallen and a lanyard has arrested the fall, the lanyard and the tool/equipment shall be removed from service until they can be fully inspected and confirmed as fit for purpose.
- Securing points for tools and machines must be in place above the work site and the securing device must be as taut as possible.
- The design of heavy tools and equipment should physically preclude the use of small and medium carabineers.

## **POWER TOOLS**

The following recommendations relate to the safe use of power tools at height:

- For electrically powered tools, the supply cable sheave must be secured to the power tool case and the supply socket to prevent excessive strain being placed on internal conductors.
- For pneumatic tools, the air hose must be secured to prevent strain on the fittings at either end.
- Any retention that is fitted to power tools shall never be solely secured to the power cable or air hose.
- Sockets, extensions and ratchets etc. should be pin locked to power tools (electric and pneumatic) to prevent accidental release, and battery powered tools should have an attachment to lock the battery in place.

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- Power tools must have a lanyard with a load rating appropriate to the weight of the tool and the attachments.

### **TOOLS FOR WORKING ON ELECTRICAL INSTALLATIONS**

When working at height on electrical installations, lanyard attachment points and lanyards must be electrically isolated from the tool itself, to the same level of protection as the tool grips.

**Note: Tools specifically designed for working at height on electrical equipment should not be used for general purpose work at height.**

### **TOOL STORAGE**

The following represents best practice for tool storage:

- When not in use, "at height" tools should be kept in a secure location.
- Tools should be stored in such a manner that a simple visual inspection can highlight any discrepancies or omissions in the tool box inventory.
- In addition to the tools, the Tool Storage Facility shall be equipped with:
  - Sufficient numbers of load rated tool lanyards
  - Special belts for fastening tools and bag
  - Sufficient numbers of tool bags with internal fastening devices.

### **TOOL BAGS, POUCHES AND BELTS**

The following guidelines should be observed to ensure the safe and effective use of tool bags, pouches and belts at height:

- Tools shall be taken up to work location in some form of kit/bag.
- The kit/bag shall be attached to the user, and leave both hands free.
- Tools are to be attached to the kit/bag (not merely put in it).
- Carrying pouches shall always be used for radios and any other portable equipment with no dedicated attachment point.
- The locks on carrying pouches should have a double securing mechanism to guard against unintentional opening.
- Belts with snap fasteners are not recommended.
- Tool lanyards shall be used between the tools and belt or bag.

### **INSPECTION AND TESTING**

Certain inspection and testing is recommended, as follows:

- All tooling manufactured for "at height" use should be drop tested (with 50% safety factor) and certified.
- Tooling attachment points should be tested to assess pull weights and drop weight fracture.
- Guidance for inspecting tools prior to use should be provided (including acceptance/rejection criteria).

### **PROCEDURES**

The following processes and procedures are recommended:

- Procedures and practices should be implemented to ensure that all users are aware of the scope and purpose of "At Height" tooling and any particular methods of work.

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**Job/Task:** \_\_\_\_\_

**Date:** \_\_\_\_\_

<b>Control of Work – Pre Job Planning</b>	<b>OK</b>	<b>N/A</b>	<b>Explanation</b> (If N/A or more instructions needed)
When planning work with the potential for dropped objects, JSEA shall address the control of objects with the potential to fall.			
Before starting work the area shall be visually inspected for loose items (fasteners, bolts, covers, etc.) and debris.			
Areas below any elevated work with the potential for dropped objects shall be secured with red barricade tape and warning tags identifying the hazard.			
Loose items shall be identified in wet ink on the JSEA and checked once back on the deck to assure all items are accounted for.			
<b>Working Near Handrails</b>	<b>OK</b>	<b>N/A</b>	<b>Explanation</b>
When working within six feet of a handrail, tarps or other suitable protection shall be used to prevent items from falling to the level below.			
Items (tools, materials, debris, etc.) shall not be stacked against handrails where there is a potential for these items to fall to a lower level.			
<b>Working with small items over grating or near deck penetrations</b>	<b>OK</b>	<b>N/A</b>	<b>Explanation</b>
When working with small items over grating or near deck penetrations; mats, tarps, plywood, tec. Shall be used to prevent items from falling to a lower level.			
<b>Scaffolding/Hard Barricade Construction &amp; Use</b>	<b>OK</b>	<b>N/A</b>	<b>Explanation</b>
During erection/dismantling of scaffold, a secure method shall be used to raise and lower scaffold poles (i.e. hand, rope, bag, etc.)			
Toe boards shall be installed around the perimeter of all scaffolds and hard barricades protection open holes.			
Before and after use, all scaffolding material without end caps shall be inspected for loose items.			
<b>Unsecured Tools, Parts, Equipment &amp; Material</b>	<b>OK</b>	<b>N/A</b>	<b>Explanation</b>
Hand tools used for working at heights shall have a secondary means of attachment, such as lanyards, which must be attached to the employee or a fixed point on the work platform.			
Tools shall not be modified to accept the attachment of the lanyard			
Tools and equipment shall be raised to the work platform and returned to the deck using a tool bag, bucket, or other means such as a rope to keep them from falling.			
Loose tools, parts, nuts, bolts, etc. shall be kept in the tool bag/ bucket, until needed.			
<b>Unsecured Lighting &amp; PA Equipment Fixtures</b>	<b>OK</b>	<b>N/A</b>	<b>Explanation</b>
All lighting, PA equipment, and other similar items secured above the work area, shall have a secondary means of retention.			
<b>Worksites Being Left in Unsafe Condition</b>	<b>OK</b>	<b>N/A</b>	<b>Explanation</b>
All scrap, debris, and loose items shall be kept secure throughout the duration of the task and removed upon completion.			
Before leaving the work area, the tops of containers, I-beams, channel iron, etc. shall be checked for loose items.			

Inspector Name: \_\_\_\_\_ Inspector Signature: \_\_\_\_\_