

Aerial Lift JHA

Completed instructional example | Edition v1.0 | October 6, 2026

Learning and planning resource. Adapt with the people doing the work, verify actual controls and follow required authorization. This document supplies no completed field inspections, signatures or work approval.

Work and worksite

Fictional example: an authorized operator uses an articulating boom lift to inspect and fasten a small exterior sign from inside the basket. The machine works from a designated paved area beside a building; pedestrians normally pass nearby. The sign and tools fit within the approved platform arrangement. The example excludes energized electrical work, exiting the basket at height, using the boom as a crane, and scissor-lift work. Machine-specific instructions remain essential.

- Record the lift make/model, configuration, capacity, operating limits, inspection requirements, and applicable manufacturer instructions; do not copy another model's wind or slope limits.
- Identify ground support, slopes, drains, covers, underground voids, vehicle interfaces, the whole boom-swing envelope, and potential overhead entrapment points.
- Identify electrical sources and establish required controls before approaching them. A nonconductive-looking basket does not establish insulation or authorization for electrical work.
- Plan the selected fall-protection system, approved anchor points, compatible equipment, clearance where relevant, and emergency lowering/rescue arrangements with assigned trained personnel.

Actual project records needed: Location, crew and responsible people; equipment models and instructions; permits/releases; emergency arrangements; actual checks and approvals.

Task | Hazard | Control | Verification

Select the lift and plan the work

Hazard: Inadequate reach prompts climbing on rails; excess weight or side force destabilizes the platform.

Control: Select equipment that reaches the work from a suitable ground position within its rated envelope. Account for people, tools, material, and the manufacturer's restrictions. Change the method if the work cannot be done while standing on the basket floor.

Verification: The supervisor and operator verify reach, combined load, operating limits, and the ability to complete the task from inside the platform.

Reasoning: Equipment selection removes pressure to compensate for a poor setup by overreaching.

Inspect the lift and verify emergency arrangements

Hazard: A failed control, damaged guardrail, or unavailable ground operator leaves a worker trapped or unable to descend.

Control: Perform pre-start checks and required control tests using the actual manual, including emergency functions under controlled conditions. Isolate defects. Brief the designated ground person on access to controls, communication, and the planned emergency response.

Verification: Record actual findings and confirm the emergency method is understood and workable for the location before elevation.

Reasoning: Knowing an emergency button exists is different from being prepared to use the machine's recovery procedure.

Prepare and control the work zone

Hazard: A wheel enters a weak cover or hole; the boom strikes a passing vehicle or a pedestrian enters the drop zone.

Control: Verify support and position within the machine's limits. Establish barriers for travel, tail swing, boom movement, and falling objects. Resolve overhead and electrical hazards before raising; coordinate with other trades and vehicle movements.

Verification: The operator checks the full operating envelope and the supervisor confirms the pedestrian diversion and access control.

Reasoning: The exposure area includes more than the patch of pavement directly beneath the basket.

Enter and connect the protection system

Hazard: An occupant falls or is ejected; an incompatible connector or external anchorage causes another hazard.

Control: Enter using the designated access and close the gate. Use the selected manufacturer-compatible personal fall-protection system attached to the designated boom/basket anchorage. A full-body harness is required where a fall-arrest system is used; do not attach to a nearby structure.

Verification: Inspect equipment, confirm compatible connections and fit, and verify the selected system addresses the actual task and rescue needs.

Reasoning: Guardrails and personal protection perform different functions on a boom-supported platform.

Elevate, position, and perform the task

Hazard: The worker is crushed between rails and the building, contacts electricity, drops a tool, or exceeds operating limits.

Control: Use deliberate movements with a clear view of overhead and adjacent surfaces. Keep feet on the basket floor and tools secured without creating snag hazards. Stop for obstructed visibility, entrapment potential, changing wind, alarms, or exclusion-zone entry; never bypass safety devices.

Verification: Monitor clearances, platform load, weather, and the condition of the work zone throughout positioning and fastening.

Reasoning: A suitable starting position can become unsafe as the boom articulates or the task shifts.

Lower, reposition, and park

Hazard: Travel in an unsuitable elevated configuration causes overturning; people enter while the boom is lowering.

Control: Clear the lowering path and descend using the planned sequence. Move elevated only if the machine is designed for it and its instructions permit the actual conditions; otherwise stow for travel. Park, secure access, and report defects.

Verification: Confirm safe stowage, removed materials, controlled keys/access, and a clear area before removing barriers.

Reasoning: The last movement still needs clearance and ground checks even though the elevated work is finished.

Pause and reassess

- Reassess for a different machine, surface, work position, material, weather condition, or nearby activity.
- Stop for alarms, defects, loss of visibility, electrical uncertainty, a failed barrier, or an unworkable emergency arrangement.

Correct the condition, revise the analysis, communicate the change and obtain required authorization before restarting.

Improve the control

Needs improvement: Fall hazard: wear a harness.

More useful: Select the compatible system, attach to the designated lift anchorage, check fit and connections, and plan emergency recovery.

Needs improvement: Ground: watch for holes.

More useful: Inspect and verify support throughout the machine route and operating envelope, and exclude weak covers or unverified surfaces.

Decisions that change the analysis

The worker can almost reach by leaning over the rail. What changes?

Stop the task and lower/reposition as required. Confirm a suitable work position without climbing or overreaching before continuing.

The assigned ground person leaves. Can the operator continue?

Pause work that depends on that person until the planned emergency and communication coverage is restored. Reassign and brief a suitable replacement.

References and adaptation

OSHA 1926.453: Aerial lifts

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.453>

OSHA aerial-lift safety fact sheet

<https://www.osha.gov/sites/default/files/publications/aerial-lifts-factsheet.pdf>

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NIOSH: Aerial lift safety

<https://www.cdc.gov/niosh/falls/aerial-lift/index.html>

This original walkthrough was informed by review of uploaded examples, then rewritten for the stated fictional scenario using current primary references. It does not reproduce a source document or its approval record.

Walkthrough and draft builder: <https://www.toddjeromejenkins.com/jha-jsa-examples/aerial-lift-jha>