

Lift materials onto a building with a mobile crane

COMPANY

PROJECT / LOCATION

DATE

PREPARED BY

Set up a mobile crane, rig materials with slings and shackles, and lift them onto a building using tag lines. Covers workers near the lift, nearby power lines, landing the load, and cleanup.

Protective equipment

- Hard hat for falling materials and contact with rigging.
- Safety glasses with side shields for flying debris when handling materials.
- Work gloves suitable for handling slings, shackles, and tag lines.
- Protective work boots for dropped materials and rough footing.

Before you start

- Review the crane position, load path, and landing area with the crew; agree on signals and who will direct the lift.
- Assess whether any part of the crane, load line, load, or rigging could come within 20 feet of a power line at the maximum working radius in the work zone.
- If so, hold a planning meeting with the operator and the other workers who will be near the crane or load: review where the power lines are and the steps that will keep everything 20 feet away.
- Inspect slings, shackles, and other rigging before use each shift and as needed during use; remove defective equipment from service and verify wire-rope sling markings for the planned load, hitch, and angle.
- If using alloy steel chain slings, verify that their periodic inspection is current; inspection intervals must not exceed 12 months.

#	JOB STEP	HAZARDS	CONTROLS
1	Set up the crane and isolate the lifting area.	Workers can be struck by the moving crane or caught between its rotating body and nearby objects. The crane, rigging, or load can contact power lines and electrocute workers.	- Barricade access to the crane swing area and load path. - Keep unnecessary workers out of the setup and swing areas. - Keep warning signs visible at all times while work is being done. - Move the setup or load path away from power lines where possible. - Mark a visible clearance boundary and use a dedicated spotter to warn before it is crossed. - Maintain at least 20 feet between power lines and every part of the crane, load line, load, and rigging. - Keep the crane, load, and rigging out from under a power line unless the utility has deenergized it and visibly grounded it at the site, or the crane's highest point with the boom fully raised straight up would still be more than 20 feet below the line.

2 Attach slings, shackles, and tag lines to the load.	A damaged or overloaded sling can break and drop the materials.	- Remove damaged rigging from service rather than using it for the lift. - Keep wire-rope sling loads within the marked capacity for the hitch and angle used. - Keep sling legs free of kinks, and do not secure wire rope or form sling eyes with knots.
	Hands can be pinched between the sling, shackle, and materials as the rigging tightens.	- Support the materials securely before attaching rigging. - Keep hands out of pinch points before signaling the operator to take up slack.
3 Take up slack and check the load balance.	An unbalanced load can tilt, slip from the slings, or strike the rigging crew.	- Clear workers from beneath and beside the suspended load. - Raise the load only enough to check that it is balanced and the rigging stays seated. - Lower and support the load before adjusting any rigging.
4 Hoist and guide the load toward the building.	A swinging load can strike workers or trap them against the building.	- Keep workers out of the load path and do not move the load over them. - Guide the load with tag lines from a clear position outside pinch points. - Do not wrap a tag line around your hand or body.
	Boom movement or load swing can reduce clearance from nearby power lines.	- Keep the lift within the planned route away from power lines. - Stop movement if the spotter cannot verify the 20-foot clearance.
5 Land and stabilize the materials on the building.	The descending load can crush hands or feet or tip after landing.	- Prepare a stable landing area before the load arrives. - Keep hands and feet out from under the load while lowering. - Support and secure the materials before releasing sling tension.
	Workers receiving the load can fall from building edges or openings.	- Choose a landing location away from exposed edges and openings. - Arrange protected access and edge protection before receiving materials. - Do not lean beyond edge protection to reach the load or rigging.
6 Disconnect and store rigging and clear the work area.	Loose rigging can snag workers, strike them during retrieval, or cause trips.	- Disconnect rigging only after the load is fully supported and stable. - Clear workers and check for snags before raising the empty hook and slings. - Store rigging and tag lines outside walking routes.

Stop work and call the supervisor if

- Stop and call the supervisor if power-line clearance cannot be maintained or verified.
- Stop and call the supervisor if rigging is damaged, wire-rope sling capacity markings are unreadable, or load weight is uncertain.
- Stop and call the supervisor if the load shifts, swings uncontrollably, or cannot be landed securely.
- Stop and call the supervisor if workers enter the load path or communication with the operator is lost.

Sources: 29 CFR 1926.251, Rigging equipment for material handling; 29 CFR 1926.1408, Power line safety (up to 350 kV)—equipment operations; 29 CFR 1926.200, Accident prevention signs and tags

Drafted with AI for review by a competent person. Clever Rook writes from the official regulation text it cites, but it doesn't know your site. Check it against your conditions and your company's safety program before use. Not legal advice.

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REVIEWED BY (COMPETENT PERSON)

REVIEW DATE

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