

Steel Bolting: Check the Tool and the Reaction Path

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Why this matters

A wrench can slip or swing into nearby steel when resistance changes. Final bolting needs a released connection, suitable tools and room to work without trapping hands.

Objective: Verify the bolting setup and keep hands clear of alignment, tightening and release paths.

Key hazards or failure points

Wrong assembly; worn wrench jaws; incompatible sockets; unexpected tool reaction; fingers in holes; forced alignment; dropped tools.

Practical controls

- Accept only connections released for final bolting. Follow the specified installation method; do not remove temporary bolts or supports to improve access without authorization.
- Use the correct spud wrench or powered tool and accessories. Inspect condition and required retainers; put powered tools in their prescribed safe state before changing accessories.
- Work from protected access. Keep fingers out of connection holes and reaction spaces. Use alignment tools only as intended; do not improvise extensions or strike a tool not intended for striking.

Verify It in the Field

Match the connection mark, bolt assembly and installation method to current instructions with the bolting lead. A familiar torque setting is not evidence for this assembly.

Before applying force, trace where the wrench, socket and hand could move. Confirm specified reaction arrangements, clearance and stable footing without operating the tool.

Check jaws, drive, socket and retainers against their instructions. Record tool/setup, source, finding and checker; arrange loose tools and materials against falling.

Stop and reassess

Stop for misfit, slipping, damaged threads, uncontrolled reaction or uncertain release. Secure the tool and flag the affected connection. Obtain the required disposition, recheck and rebrief before resuming.

Ask the crew

1. Where could this wrench trap a hand?
2. Which instruction establishes this installation method?
3. Who resolves a misfit or proposed bolt removal?

Use the task plan and required specialist decisions before exposure.

Sources: OSHA 1926.300–302; 1926.754(a); actual connection and tool instructions.

Free next step: [JHA/JSA planning & field-verification worksheet](#)

Expanded guidance and separate forms: toddjeromejenkins.com/toolbox-talks/steel-bolting-spud-wrench-safety