

Shared Hole Steel Double Connection Transfer JHA

Worked instructional example

Work and worksite

A qualified erection crew will connect a second solid-web building beam at a shared-hole connection while the first beam remains secured by the designed bolted seat or equivalent device. The accepted device is attached to both the supporting member and first beam before shared nuts are removed. Protected access, crane support and actual connection-release criteria govern the transfer. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- Current erection details identify both beams, common holes, supporting member, designed seat/device and the complete load-transfer sequence. The responsible engineer and erection lead establish the actual attachment, stability and crane-release requirements; no improvised seat or one-bolt recipe is supplied.
- The first member and supporting structure are independently stable. The selected seat route must satisfy OSHA 1926.756(c), including adequate attachment to the supporting and first members before shared nuts are removed. Protected access, qualified roles and effective stop communication remain in place.
- Beam/girder erection 238120-04 and connecting 238120-05 links are partial: this designed shared-hole transfer only. Ordinary single-beam connecting, device redesign or welding, multiple-lift assemblies, final bolt acceptance and seat removal are excluded.

Questions before work

- Which exact double-connection detail establishes the first member's support while shared fasteners are disturbed?
- Who verifies adequate device attachment to both required members before any shared nuts are removed?
- What actual connection and stability evidence releases crane support and retains the device for later work?

Task Hazard Control

1 Release the exact shared-hole arrangement

Hazard: Treating a common-hole connection like ordinary beam connecting can remove the first member's support and destabilize the supporting structure.

Control: Erection lead identifies both beams, support, shared holes and current engineered seat/device detail. Confirm the first member's stable condition, actual device load capacity and the full second-beam erection sequence. Resolve discrepancies before work and assign who can release device attachment, shared-fastener disturbance and crane support; a generic bolting JHA does not establish this transfer.

Verification: Lead verifies both member identities and the designed transfer hold points.

Reasoning: The first load path must remain effective while the second connection is made.

2 Prepare protected connector and lifting positions

Hazard: An exposed connector, dropped wrench or uncontrolled incoming beam can injure workers before the shared connection is ready.

Control: Crew establishes the actual protected platforms or worker protection and rescue arrangement, secured tool handling and below-work exclusions. Confirm crane, qualified rigging and signals for the second member, including its other receiving end under the erection plan. Maintain stable positions clear of beam swing and pinch paths and coordinate neighboring work outside the transfer envelope.

Verification: Lead checks access, tool control and second-member lift arrangements.

Reasoning: Safe receiver positions must exist before either connection or suspended-load work begins.

3 Attach and accept the designed seat/device

Hazard: A partially fitted device or a connection only to one member can fail when common fasteners are released.

Control: Qualified crew installs the exact designed device through the accepted bolted method without disturbing required first-member support. Before any shared nuts are removed, the named authority verifies that the device can support the process load and is adequately attached to both the supporting member and first member as required by OSHA 1926.756(c). Hold incomplete or uncertain attachment; appearance is not acceptance.

Verification: Named authority records both required attachments before shared-nut disturbance.

Reasoning: The seat route requires an established independent load path before the shared connection changes.

Complete the work and hand over

4 Make the shared connection under retained support

Hazard: Removing nuts too early, losing alignment or placing fingers in common holes can cause member movement, crushing or a dropped load.

Control: After the actual device hold-point release, crew follows the issued shared-fastener and second-member connection sequence with prescribed crane support retained. Use suitable alignment tools from protected positions and keep hands out of holes and closing gaps. Maintain the first member's accepted device support throughout; stop for unexpected fit or movement rather than forcing hardware or loosening unrelated connections.

Verification: Lead confirms the device remains effective through the specified transfer actions.

Reasoning: The device acceptance must remain true during the complete fastener-transfer stage.

5 Verify both members before crane release

Hazard: An incomplete shared joint or second-end connection can leave the new beam unstable and overload the first member's temporary arrangement.

Control: Responsible erection personnel verify the actual initial connections at the shared joint and the second beam's other end, required stability and continued device condition under the drawing and applicable requirements. Obtain the named crane-release decision while support remains. Hold unresolved findings; neither reaching the intended elevation nor a partly fitted common bolt establishes the complete released condition.

Verification: Named erection authority verifies required connection and stability evidence before unrigging.

Reasoning: Crane release depends on both members' accepted remaining support conditions.

6 Hand over final work and retained device control

Hazard: A later crew may remove the seat or assume final bolt acceptance, losing a support that the erection stage still needs.

Control: Unrig through the protected method only after the actual release. Record transfer findings, retained device status, incomplete final connections and restrictions. Hand over final bolting and verification to the identified lead and keep device removal under its separate engineered completion release. Protect the arrangement from neighboring work and report any subsequent disturbance before the affected connection is relied upon.

Verification: Receiving lead confirms final-work limits and retained-device ownership.

Reasoning: Initial transfer completion does not authorize final acceptance or support-device removal.

Pause and reassess

- The shared-hole detail, first-member stability or actual designed device capacity and attachment method is uncertain.
- Required attachment to either member is incomplete, or fit, fastener state or movement differs from the issued sequence.
- Crane support, protected access, tool control, communication or required release evidence is lost.

Improve the controls

Needs improvement: Remove the common nuts; the crane is holding the new beam.

More useful: Verify the first beam's designed device is adequately attached to both required members before disturbing shared nuts.

Needs improvement: One common bolt is in, so release the crane.

More useful: Named personnel verify the actual shared and second-end connections and both members' required stability before crane release.

Decisions that change the analysis

Does a designed seat permit the first member's shared nuts to be removed immediately?

Only after the actual seat/device is adequately attached to both the supporting member and first member and its required load-support condition is verified. OSHA 1926.756(c) establishes that prerequisite for this route. The second member still needs its own actual connection and stability release before crane support is withdrawn; the drawing governs the specific sequence.

What must the crew record for actual use?

Record both beams and support identities, current device and erection details, actual first-member stability, required device capacity and both attachment findings, named shared-nut and crane-release decisions and second-end evidence. Identify retained device control, incomplete final bolts, disturbances, receiving lead and separate removal requirements; prefill no favorable transfer or inspection result.

Training needs

- Double-connection-specific instruction for qualified connectors on the actual seat-supported sequence, first-member load path and shared-fastener hold point.
- Instruction on protected connector positions, tool reaction and pinch paths, crane communication and the separate final-bolting and device-removal release.

Confirm applicable qualifications and actual training evidence for the people assigned. Related toolbox talks support discussion; they do not establish competence.

References and adaptation

OSHA 1926.756 Beams and columns: shared-hole double connections
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.756>

OSHA 1926.760 Steel erection fall protection
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.760>

OSHA 1926.753 Steel erection hoisting and rigging
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.753>

References reviewed October 12, 2026. Use actual equipment and product instructions, project design and site requirements. This original draft supplies no fabricated inspection, signature or approval.