READY TO INSPECT — FIELD CHECKLIST

High-strength bolting special inspection checklist

A bolted connection is inspected before it disappears behind decking, fireproofing and finishes. The independent inspector's job is to confirm the assembly is what the documents call for and that pretensioning was actually achieved, and to hold the proof that it was.

Who runs it: A third-party or owner's-rep special inspector for structural steel, alongside the erector's bolt-up crew. When: At fastener delivery, before installation begins, and at each connection during and after tightening, before it is covered or coated.

Inspection scope and approvals

- [ ] Bolting scope confirmed in the statement of special inspections
  Which connections need observation, and whether it is continuous or periodic, read from the statement and the approved connection details.
  No photo required
- [ ] Slip-critical joints and faying-surface class identified
  Joints the drawings mark slip-critical listed with their surface class; any coated faying surface matched to its approved submittal and slip-class test report.
  No photo required

Fastener assemblies and documentation

- [ ] Fastener type, grade and finish match the approved documents
  Bolts, nuts and washers are the specified assembly; markings legible and consistent across the lot.
  2 photos required
- [ ] Manufacturer certifications on file for the lots delivered
  Certified test reports trace to the fastener lots on site, not a generic catalog sheet.
  1 photo required
- [ ] Assemblies stored and protected to keep lubrication intact
  Kept dry and in original containers; no rusted or dried-out assemblies pulled into the work.
  1 photo required

Pre-installation verification

- [ ] Pre-installation testing performed for each combination and lot
  Rotational-capacity or tension-calibrator check witnessed for the fastener/hole/method combination in use.
  2 photos required
- [ ] Installation method confirmed against the connection type
  Snug-tight where specified; a documented pretensioning method where the connection is slip-critical or pretensioned.
  1 photo required
- [ ] Tension calibrator and wrench calibration records current
  Calibration tag or record current for the calibrator; calibrated wrenches set against assemblies from the lot actually in use.
  1 photo required

Installation and completion

- [ ] Joint brought to snug-tight condition before pretensioning
  Plies in firm contact; the sequence photographed on a representative joint.
  2 photos required
- [ ] Faying surfaces correct for the connection class
  Slip-critical surfaces free of paint, oil and mill scale where the documents require it.
  2 photos required
- [ ] Pretensioning achieved and verified by the specified method
  Match-marks, twist-off ends or a calibrated indicator photographed after final tightening.
  3 photos required

- [ ] Hardened washers placed as the approved details show
  Washers under the turned element and over oversized or slotted holes wherever the approved connection details call for them; none missing.
  1 photo required

Discrepancies and reporting

- [ ] Inspected joints marked on the steel with their status
  Accepted and rejected joints paint-marked and logged by gridline; once the erector corrects a rejected joint, it is re-tested by the same method and re-marked.
  1 photo required

- [ ] Bolting items still open at cover named on the inspection report
  Joints not corrected before decking, coating or fireproofing listed by gridline on the report to the engineer of record and the building official.
  No photo required