



Ground Anchor Proof Testing and Lock-Off Checklist

Ground Anchor Proof Testing and Lock-Off interactive checklist: commentable workflow to apply load schedule, measure creep, confirm lock-off, and export as PDF/Excel with QR security.

Project:

Date:

Filled by:

Pre-Test Verification

1	Confirm anchor identity, readiness, and documentation before testing.
2	Verify anchor ID, location, and status match drawings; confirm grout cure and stressing authorization per approved project specifications and authority requirements. Evidence: tagged anchor photo, ITP/permit reference, supervisor signature.
3	Review the approved load schedule, hold durations, acceptance criteria, and contingency actions in a pre-task briefing. Evidence: toolbox talk record with attendee signatures and dated briefing photo.
4	Check calibration of jack, gauge, and load cell; confirm certificates are current per project requirements. Evidence: attach calibration certificates, serial numbers, and photo of instrument IDs.
5	Confirm reaction frame/beam capacity and seating, bearing plates, and grillage stability against sliding/uplift. Evidence: setup photos and engineer/competent person acceptance signature.

Equipment Setup

6	Mount hydraulic jack concentric with tendon axis using a spherical seat; check alignment with a straight edge or laser. Acceptance: visible coaxial alignment. Evidence: close-up photos and alignment check record.
7	Install displacement instrument (dial gauge or LVDT) to an independent reference frame; zero reading before loading. Acceptance: stable zero for 60 s with no drift. Evidence: photo and zero reading log.
8	Bleed air from hydraulic lines and set relief valve per manufacturer instructions. Acceptance: smooth pressure rise without chatter. Evidence: maintenance log entry and supervisor initials.
9	Mark tendon and wedges with paint or tape to observe slip and seating movement. Acceptance: marks visible in photos. Evidence: macro photo showing reference marks.
10	Establish synchronized timekeeping for readings; verify stopwatch/clock matches device time. Acceptance: time variance ≤ 1 s between devices. Evidence: timestamp screenshot photo.

Load Schedule Execution

11	Apply seating load and initial cycle(s) as specified to settle the system. Acceptance: movement stabilizes between cycles per schedule. Evidence: load-displacement entries and cycle notes.
12	Increase load in defined increments to the specified proof load, holding at each increment for scheduled durations. Acceptance: pressures/loads match targets within tolerance per specs. Evidence: reading sheet and gauge photos per increment.
13	Record displacement at specified time intervals during each hold (e.g., initial, 1, 2, 5 min as scheduled). Acceptance: consistent timing achieved within ± 5 s or per specs. Evidence: time-displacement log.
14	At proof load, maintain the hold and record time-displacement series for creep evaluation. Acceptance: no sudden jumps; stable readings per schedule. Evidence: creep table and instrument photo at proof load.

Creep Measurement and Acceptance

15	Calculate net creep excluding elastic recovery per approved method. Acceptance: creep within project-specified limit. Evidence: calculation sheet or auto-generated report with formula reference.
16	If movement exceeds limits or is non-linear, pause test and notify the engineer. Acceptance: hold condition maintained pending instruction. Evidence: escalation note, photos, and engineer direction attached.
17	Unload per schedule to identify elastic recovery; capture displacement rebound at defined times. Acceptance: recovery trend sensible and repeatable. Evidence: unload curve entries and plot.

Lock-Off and Load Transfer

18	Set wedges and lock-off at the specified load; release jack smoothly to transfer load to the anchor head. Acceptance: lock-off load within tolerance per specs. Evidence: gauge photo at release and recorded lock-off load (kN).
19	Perform lift-off check by re-engaging the jack to pick up the anchor; verify measured lift-off equals target within tolerance. Evidence: lift-off reading (kN), photo, and acceptance tick.
20	Inspect wedge seating and reference marks for slip; confirm no unintended movement after lock-off period per schedule. Evidence: after-lock-off close-up photos and observation log.

Documentation and Demobilization

21	Complete the test report: load schedule, readings, creep calculation, plots, and conclusions. Acceptance: all mandatory fields completed. Evidence: generated PDF/Excel attached with QR identifier.
22	Update anchor register with ID, date, proof load, lock-off load, and acceptance status. Evidence: register entry screenshot and responsible person signature.
23	Remove test equipment and restore the work area; reinstate temporary protections as specified. Evidence: demobilization photos and housekeeping checklist signed.
24	File calibration certificates, permits, and engineer approvals in the project QA archive. Evidence: document links, version control ID, and QA manager sign-off.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
<p>Ground Anchor Proof Testing and Lock-Off is the controlled process used to demonstrate that installed anchors meet required performance before they are relied upon. This checklist focuses on proof testing, lock-off, and load transfer confirmation, and excludes installation tasks. It aligns with common geotechnical anchor practices, including lift-off checks, creep measurement, and displacement monitoring using calibrated gauges or LVDTs. You will apply the approved load schedule, record time-displacement data, assess creep, and verify the lock-off load is transferred to the anchor head within tolerance. By following this process, you reduce risks of underperformance, misalignment, gauge error, and unsafe reactions. The outcome is a verifiable, traceable record showing that each anchor meets the acceptance criteria per approved project specifications and authority requirements. Start in interactive mode to tick items, add comments for variances, attach photos and calibration certificates, and export your completed record to PDF/Excel with a secure QR code.</p>	<ol style="list-style-type: none">1. Preparation: gather the approved load schedule, test rig, calibrated jack, gauge or load cell, displacement instrument, reaction frame, spherical seat, safety gear, and housekeeping materials. Confirm permits and access, and brief the team.2. Open the interactive checklist on a tablet or phone. Enter anchor ID, location, and date. Attach calibration certificates and pre-test photos to the first items.3. Progress through items in order. Tick each step as completed, add comments for variances, and capture photos of gauges, alignment, and marks directly in the form.4. During loading and holds, input load (kN), time stamps, and displacement readings. Use the comment field to note anomalies such as reaction movement or air bleeding.5. After lock-off and lift-off verification, upload plots or auto-generate them if your system supports it. Review completeness; unresolved comments must be addressed before sign-off.6. Export the completed, commentable record to PDF/Excel. Share with stakeholders and embed the QR code to secure report authenticity in printed copies.7. Sign-Off: obtain digital signatures from the supervisor and engineer, distribute the report, and archive it in the project QA system with version control.