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Torque Wrench **Calibration Compliance** **Checklist**

A Quick-Reference Guide for
Audit-Ready Torque Tools



When auditors find torque tool deficiencies, they rarely find just one. A missing certificate becomes a gap in traceability. An undocumented drop becomes a suspect product batch. An improper interval becomes a systemic finding. This guide gives quality managers a fast way to assess program gaps, close them before an audit, and build the kind of documentation record that holds up under scrutiny.

The Standards That Govern Torque Wrench Calibration

ISO 6789 is the international standard for hand torque tools. It defines two types (Type I: indicating; Type II: setting) and two classes within each, and specifies test methods, measurement points, and accuracy requirements. A compliant certificate should identify which type and class was tested.

NIST Traceability requires that every measurement link back to national standards through an unbroken calibration chain. The calibrating lab's reference torque transducers must carry current, NIST-traceable certificates.

ISO/IEC 17025 Accreditation means the laboratory performing calibration holds accreditation with torque explicitly listed in its scope, covering the specific range and units of the tools being calibrated.

A calibration certificate that doesn't reference all three of these — standard, traceability, and accredited lab scope — is incomplete by definition.

Key Compliance Considerations

Maintaining calibration compliance means addressing three key areas:

**Preventative
Maintenance:**

Torque wrenches degrade with use. Click-type wrenches lose accuracy when stored under tension; beam and dial types are vulnerable to impact and corrosion. Significant correction at calibration often signals deferred maintenance or improper storage.

**Calibration
Intervals:**

Intervals should reflect tool type, usage frequency, and how critical the application is. A blanket annual interval applied to all torque tools is rarely defensible in a regulated environment.

Documentation:

Every calibration record should capture instrument ID, make/model/serial, calibration date, as-found and as-left results at each test point, environmental conditions, measurement uncertainty, pass/fail status, and technician identification. Document both CW and CCW results if both directions are used.

**Audit-Ready
Certification:**

Certificates must reference ISO 6789 type and class, list all test points (minimum three across the tool range), report measurement uncertainty, identify NIST-traceable reference standards, and carry evidence of the lab's ISO/IEC 17025 accreditation. A pass/fail result without supporting data does not meet the standard.

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Pre-Audit Checklist: What Auditors Commonly Cite



- ☐ **Certificate missing measurement uncertainty values:** Uncertainty must be reported for each test point. A pass/fail result alone is not sufficient.
- ☐ **As-found data not recorded:** Without a baseline before adjustment, there's no way to assess the tool's prior state or evaluate impact on previous work.
- ☐ **Calibration performed in one direction only:** If a tool is used in both CW and CCW directions, both must be tested and documented.
- ☐ **Fewer than three test points across the tool range:** Single-point or two-point certificates do not satisfy ISO 6789 requirements.
- ☐ **Tool type and class not identified on the certificate:** The certificate must specify which ISO 6789 type and class applies.
- ☐ **Non-risk-based calibration intervals:** A flat annual policy applied to all tools regardless of use or criticality is a common finding.
- ☐ **Dropped or impacted tool returned to service without recalibration:** Any tool that experiences a shock event should be recalibrated before further use.
- ☐ **New tools placed in service without initial calibration:** Tools must be calibrated before first use, not assumed to be in-tolerance from the factory.
- ☐ **Lab scope does not cover the tool range or units:** Confirm the lab's accreditation scope matches your tools' range and units (Nm, ft-lb, in-lb).
- ☐ **Environmental conditions not documented:** Temperature and humidity at the time of calibration must appear on the certificate.
- ☐ **Click-type wrenches stored under tension:** Storage under tension affects accuracy and can invalidate the calibration interval. Tools should be backed off to minimum torque after use.
- ☐ **Reference standard traceability gap:** An expired or missing calibration certificate for the lab's torque transducer breaks the traceability chain.

**If any of these apply to your program, don't wait for an auditor to find them.
Most can be resolved with a focused internal review and a calibration service call.**

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Pre-Audit Checklist: 30-Day Readiness Sprint



Days 30–21: Inventory and Triage

- Pull torque tool inventory from equipment register; cross-reference against calibration register
- Flag past-due calibrations and any expiring within 60 days
- Identify tools dropped, repaired, or placed in service without an initial calibration record



Days 20–14: Submit For Calibration

- Send flagged tools to your provider.
- Confirm their accreditation is current and that their scope explicitly covers your tools' type, range, and units.
- Verify that they test at a minimum of three points, document as-found data, and report measurement uncertainty on all certificates.



Days 13–7: Update Your QMS

- File new certificates in equipment records and update the calibration register with as-found/as-left status and next-due dates.
- For out-of-tolerance findings, complete and document impact assessments and corrective actions.
- Confirm calibration labels are affixed, and that storage instructions have been communicated to users.



Days 6–3: Physical Walkthrough

- Inspect every active torque tool for a current calibration label.
- Verify proper storage—click-type wrenches should be backed off to minimum torque after use.
- Confirm that torque multipliers, adapters, and extension arms used in practice are also accounted for in calibration records, as their use affects the applied torque value.



Days 2–1: Build Your Audit Binder

- Organize by tool type: click/preset, beam/dial/digital/indicating, hydraulic.
- Each section should include the current certificate, previous certificate, equipment record, and corrective action documentation if applicable.
- Be ready to explain interval rationale, storage policy, and how the program accounts for accessories and adapters.

Choosing a Calibration Provider

Not all providers have the scope, equipment, or technical rigor to calibrate torque tools to ISO 6789. Knowing what to look for matters.

Criteria	What to Confirm
Accreditation	ISO/IEC 17025 with torque calibration explicitly in scope
Scope coverage	Covers your tools' range and units (Nm, ft-lb, in-lb)
Traceability	NIST-traceable reference torque transducers with current certificates on file
Test method	ISO 6789-compliant with minimum three test points across range
Data reporting	As-found and as-left data on every certificate
Uncertainty	Measurement uncertainty reported on all certificates
Industry experience	Familiarity with AS9100, IATF 16949, ISO 9001, or NADCAP as applicable
Service options	Onsite service available; nationwide network for multi-site support

Cal Tec Process Management provides ISO/IEC 17025-accredited torque calibration with full NIST traceability, ISO 6789-compliant test methods, and onsite service options across a nationwide network.

If your program has gaps — or you're not sure — [contact us for a calibration assessment](#).
We'll help you identify what needs attention before an auditor does.