



QACP 8 - CONTROL OF MONITORING AND MEASURING DEVICES

PURPOSE:

To ensure the control, efficiency and accuracy of inspection, measuring and test equipment and comparative references used for product verification or in special processes.

SCOPE:

All inspection, measuring or test equipment used for product inspection or in special processes, both personal and company provided, that effect the determination of product verification at various inspection stages.

DEFINITIONS:

Inspection Tool: Any gauge, instrument, sample or fixture used to verify the quality of physical or functional attributes of detail parts, subassemblies or assemblies for the purpose of formal approval.

Calibrate: To determine, check or rectify the graduation of any inspection tool that gives quantitative measurements.

RESPONSIBILITIES:

The Maintenance Manager of Triton Marine is responsible for ensuring that all mechanical inspection tools and measuring equipment used in special processes are in calibration and properly maintained.

The Manager, Electronics of Maritime Services is responsible for ensuring that all electronic inspection tools within Maritime Services are in calibration and properly maintained.

The Manager, Technical Service of Pharos Marine Electronics is responsible for ensuring that all electronic inspection tools within Pharos are in calibration and properly maintained.

REFERENCES:

Calibration Record
Internal Calibration Report
Calibration Failure Record
Red "HOLD" tag



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PROCEDURE:

8.1 Calibration Process Links

Process Inputs	Process Activities	Process Outputs
<i>Purchasing Process</i> <i>Inspecting and Testing Process</i>	Inspect equipment Calibrate equipment	<i>Inspecting and Testing Process</i> Calibrated equipment

8.2 Control of Inspection Tools

- 8.2.1 Inspection tools are selected to ensure that they are capable of verifying product and processes with the necessary accuracy and precision.
- 8.2.2 The employees responsible for maintenance of tools ensure all inspection tools used for product and process verification in their area of responsibility are in proper calibration control. Only inspection tools that are in calibration are used for product and process verification.
- 8.2.3 Each inspection tool has a Calibration Record that includes a description, the serial number or other unique identification, required accuracy tolerance and the calibration frequency. Additionally, the date and results of each calibration check are recorded.
- 8.2.4 Each inspection tool is identified with a suitable indicator or identification record that shows the calibration status, and a unique identification that relates back to the calibration record.
- 8.2.5 Inspection, measuring and test equipment used for reference purposes only is not included in the calibration system. Such equipment is clearly identified and does not have a calibration status indicator.
- 8.2.6 Inspection tools are handled and stored to ensure that accuracy and fitness for use are maintained.
- 8.2.7 Suitable environmental conditions are maintained whenever inspection, measuring and test equipment is being calibrated or used.



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8.2.8 Calibrated inspection tools are safeguarded to prevent adjustment that would invalidate the calibration setting.

8.3 Calibration Procedure

8.3.1 The persons responsible for calibration arrange for inspection tools to be recalibrated when needed.

8.3.2 All calibrations are carried out either internally by suitably qualified personnel or by external calibration services.

8.3.3 Internal calibration is performed and recorded using the Calibration Report Form.

8.3.4 All calibrations are carried out against a reference standard traceable to International or National Standards.

8.3.5 Each external calibration certificate is reviewed prior to the equipment being returned to service to ensure that the accuracy of the calibration meets internal needs. Acceptance is indicated by signature on the Calibration Record.

8.3.6 Should the calibration of an inspection tool indicate an out-of-calibration condition, a Calibration Failure Record is initiated and processed. The determination to reinspect is made during this investigation. Additionally, the disposition of the failed inspection tool in question is recorded on the Calibration Failure Record.

8.4 Use of Inspection Tools

8.4.1 It is the responsibility of the user of an inspection tool to ensure that the calibration status is current and the tool is acceptable for use. If the calibration status is not current, the tool is immediately removed from service, identified with a red "HOLD" tag and reported to the person responsible for recalibration.

8.4.2 All employees are responsible for handling and storing inspection tools so that they maintain accuracy and fitness for use. Any inspection tool that is dropped or damaged during use is immediately removed from service, identified with a red "HOLD" tag and reported to the person responsible for recalibration.