

First Article Inspection

Standard Operating Procedure · Ninebark Fabrication Quality Library

PURPOSE

Confirms that the first finished piece of a production run matches the released drawing before the rest of the run is cut.

Applies to every work order with a controlled drawing, on every changeover and every revision change.

Who Does What

ROLE	RESPONSIBILITY
Specialist	Runs the dimensional check and records the readings.
Reviewer	Confirms the readings against the released drawing revision.
Approver	Releases the run, or holds it and raises a nonconformance.
Manager	Owns the first article register and the quarterly sample audit.

Procedure

1	Stage the first piece and pull the released drawing OWNER: Specialist
	Take the first finished piece off the run and move it to the inspection bench. Pull the drawing from the document register and confirm the revision letter on the drawing matches the revision on the work order.
	⚠ STOP If the revision on the drawing does not match the work order, stop the run. Do not inspect to a superseded revision, and do not correct the work order yourself.

2

Measure every controlled feature

OWNER: Specialist

Measure each feature on the inspection sheet, in the order listed. Record the actual reading, not a pass or fail mark. A reading is evidence; a checkmark is not.

FEATURE	NOMINAL	TOLERANCE
Overall length	412.0 mm	± 0.5 mm
Bolt circle diameter	180.0 mm	± 0.2 mm
Plate thickness	6.0 mm	+0.3 / -0.1 mm
Flange flatness	0.0 mm	0.4 mm max

Every controlled feature is measured on the first article, including features that were in tolerance on the previous run.

3	Record the result and route it OWNER: Reviewer				
	Enter the readings against the work order and attach the inspection sheet. The record cannot be routed until every controlled feature has a reading. <table> <tr> <th>IF ALL FEATURES CONFORM</th><th>IF ANY FEATURE IS OUT</th></tr> <tr> <td> Mark the record conforming. Route it to the Approver. The run stays paused until release. </td><td> Do not route for release. Raise a nonconformance against the work order. Quarantine the piece and the run. </td></tr> </table>	IF ALL FEATURES CONFORM	IF ANY FEATURE IS OUT	Mark the record conforming. Route it to the Approver. The run stays paused until release.	Do not route for release. Raise a nonconformance against the work order. Quarantine the piece and the run.
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4

Release the run, or hold it

OWNER: Approver

Review the readings against the drawing revision the Specialist recorded. Release in the work order, which stamps the record and starts the run. A hold routes the nonconformance to the Manager instead.

◆ RETENTION

First article records are kept for the life of the part number plus seven years.
The quarterly audit samples five released records at random and re-measures one feature from each.

i IF SOMETHING GOES WRONG
A part that fails first article twice on the same feature is a process problem, not an inspection problem. Hold the run and raise it with the Manager rather than re-measuring a third time.

Reference

REFERENCE DOCUMENTS
NBF_QUAL_Nonconformance_Handling_SOP NBF_QUAL_Gauge_Calibration_SOP NBF_FAB_Work_Order_Release_SOP