



## Landing Systems

LS-SBU-A002-SQM [00]

### Landing Systems Supplier First Article Inspection Instructions

Function: Supplier Quality Management

Effective Date: October 7, 2021

### INTRODUCTION

When LS-SBU-A001-SQM is referenced on Purchase Order or Contract, this document is applicable and defines Collins Aerospace Landing Systems supplier first article inspection instructions for all manufactured and purchased parts for Collins Aerospace Landing Systems sites throughout the supply chain.

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### 1 Applicability

- 1.1 This procedure is applicable to all FAIs (First Article Inspections) performed by all suppliers for COLLINS LS regardless of design authority or media (e.g., 2D, 3D DPD dataset, mylars, tabulated drawings, coordinate drawings, etc).
- 1.2 FAI Reports (FAIRs) are required on all manufactured or purchased parts (detail, sub-assembly, and assembly).
- 1.3 FAIRs shall be performed in accordance with contractual, engineering, ASQR-01, COL-ASQR-PRO-0003, LS-SBU-A001-SQM, LS-SBU-A002-SQM, and AS9102 requirements.
- 1.4 First Article Inspection Reports prior to the release of this version need not conform to additional requirements defined in this document.
- 1.5 Refer to AS9102 regarding prototype parts, single-run production parts, catalogue, and Commercial-Off-The-Shelf (COTS) items.

### 2 General

- 2.1 Collins has selected NET INSPECT to be the repository for supplier FAIRs. Suppliers shall submit FAIRs in NET INSPECT. If a part number is not immediately available in NET INSPECT, Supplier shall request the part number to be added through NET INSPECT. If export control regulations prevent technical data from being shared in NET INSPECT, MOVEIT shall be used for FAIR submission.
- 2.2 These instructions include clarification of AS9102 FAI requirements as well as additional COLLINS LS FAIR requirements.
- 2.3 All documentation shall be completed and provided in English.
- 2.4 Continuation sheets are acceptable if needed for FAI Forms 1, 2, or 3 and shall include page numbers indicating page X of XX. Each form may be numbered independent of the others.
- 2.5 All lower-level (detail, sub-assembly) FAI Reports requiring COLLINS LS approval shall be approved by a COLLINS LS SQM Representative on-site at the supplier's facility prior to incorporation into upper-level (sub-assembly, assembly) FAI Reports which also require approval on-site at supplier.
- 2.6 If the same detail level component is used on multiple assemblies, the completed detail FAI can be applied to multiple assembly FAIRs.
- 2.7 For details, subcomponents and drawings referenced on the assembly drawing/DPD, the following is required:
  - 2.7.1 If the supplier manufactures detail(s) that have a different base part number than the FAI part, then a separate, full FAI is required on the detail(s).
  - 2.7.2 If the supplier purchases the details and the details are COTS parts, a Certificate of Conformance (CoC) is required, and a traceability number is needed on Form 1 Field 18.
  - 2.7.3 When a detail Source Controlled part is purchased from the Source Controlled Supplier or a Distributor, a CoC from the Source Controlled Supplier is required in addition to an approved FAI.
  - 2.7.4 When COLLINS LS supplies detail parts, the supplied Shipping Authorization (or other COLLINS LS supplied shipping documentation) can be used for Form 1 Field 18.

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- 2.7.5 Casting and Forging FAIs must have evidence of both a COLLINS LS approved dimensional and metallurgical FAIR Form 1. If COLLINS LS provides the Casting or forging, COLLINS LS shall also provide evidence of the approved FAIR Form 1.
- 2.7.6 Casting and forgings are considered detail parts to the next level machining and shall be listed as details on FAIR Form 1. When machining a casting/forging that has no other details, the casting/forging is considered a detail.
- 2.7.7 For qualification testing at first article review, the drawing shall dictate the required elements for approval. An LS Engineering approved qualification test plan shall be present. Subsequent completion of qualification testing requirements will also be defined, typically referenced as post FAI, and managed between LS and its customer.
- 2.7.8 Any rubber materials, O-rings, seals shall list cure dates.
- 2.8 The order of precedence, in circumstances of conflicting requirements, shall be
  - 2.8.1 Contract (i.e., Purchase Order, Long Term Agreement)
  - 2.8.2 Released Engineering (See Hierarchy of Engineering Requirement)
  - 2.8.3 AS9102
  - 2.8.4 LS-SBU-A002-SQM

**3 FAI Planning Activities**

- 3.1 The preferred method of FAIR generation is via FAIR software. DISCUS is available free of charge to COLLINS LS suppliers and their sub-tiers using NET INSPECT for FAI Reports.
- 3.2 Upon receipt of a purchase order from COLLINS LS, supplier shall evaluate the need for FAIR, including any for previously incomplete FAIRs.
- 3.3 Prior to production, suppliers shall ensure all FAIRs are readily available to support the revision of product being delivered, including for all assembly, sub-assembly, detail, source-control, and proprietary parts.
- 3.4 Prior to production, suppliers shall initiate and complete FAI Planning for the fields indicated with an asterisk (\*) in Appendix A and documents indicated in Appendix B.
- 3.5 Prior to production, suppliers shall submit FAI Planning and notify their assigned LS SQM Representative it is available for review.
  - 3.5.1.1 NET INSPECT: FAI Planning can be submitted using the "IN WORK" section.
  - 3.5.1.2 MOVEIT: FAI Planning can be submitted using the supplier's "Unapproved First Article Inspection Reports for LS SQM Review" folder.
- 3.6 Prior to production, supplier shall ensure any/all questions related to drawing interpretations and requirements have been answered by COLLINS LS Engineering using ASQR-01 Form 3 or the use of ECPRs. See ASQR-01 or LS-SBU-A001-SQM for specific instructions.
- 3.7 Prior to production, supplier shall ensure that Manufacturing Process Sheet (MPS), source-control or proprietary drawings, Acceptance Test Procedure (ATP), etc., have been approved/reviewed by COLLINS LS and/or COLLINS LS customers, as applicable.

**4 Source Control Supplier FAI Reports**

- 4.1 Prior to production, source control suppliers shall submit to and obtain evidence from COLLINS LS Engineering that their drawings, DPD, ATP and Qualification Plan (as applicable) have been approved via SDIR (Supplier Data Item Review) by COLLINS LS Engineering, and/or COLLINS LS customers, as applicable.
- 4.2 The supplier shall retain the SDIR as evidence of COLLINS LS Engineering approval.
- 4.3 FAI Reports for supplier source control drawings shall be completed by the Supplier and reviewed to the supplier’s design authority engineering level and media.
- 4.4 The Supplier is required to complete a FAIR to their part number drawing per AS9102. This includes FAIRs for sub-components completed per their internal drawing.
- 4.5 COLLINS LS source inspection shall review to ensure that all subcomponent FAIRs are completed.
- 4.6 FAIR Form 1 Fields 15 – 18 of the COLLINS LS part number FAIR shall include information from supplier’s FAIR Form 1 Fields 1 – 4.

**5 Distributor FAI Reports**

- 5.1 The distributor shall complete a FAIR Form 1.
- 5.2 FAIR Form 1 blocks 15 through 18 shall reference the manufacturer’s FAI information to provide traceability.
- 5.3 COLLINS LS SQM approval is required for both the distributor and manufacturer FAI Reports.

**6 Post FAI Activities**

- 6.1 Prior to shipment, all FAI parts shall be clearly identified as “FAI PART” both on the package and tagged to the individual FAI part using a method that will not damage the part in any manner.
- 6.2 Also prior to shipment, supplier shall ensure that all approved COLLINS LS FAI Reports are uploaded to the required location in NET-INSPECT or MOVEIT.
- 6.3 FAI Reports uploaded to the supplier's "LS Approved First Article Inspection Reports" folder in MOVEIT shall be named in accordance with LS-SBU-A001-SQM and Quality Alert 20180109-01: “SUPPLIERNAME\_PART#\_SN#\_TYPE of FAI\_FAI date (MM-DD-YYYY)”

Revision Date	Revision	Comments
10/7/2021	00	Changed naming convention from “LS-SBU-A002-SQA [02]” to “LS-SBU-A002-SQM [00]”. Completely reformatted and revised entire document.

(E.g., ABCInc\_12345-6\_TH0020\_Partial\_02-03-2015).

**7 Change Log**

**Appendix A: FAI Report Forms and Form Completion Instructions**

All fields shall be filled out with the required information as described below.

Fields below marked with an asterisk [\*] shall be completed as part of FAI planning prior to production.

[R] = Required, [CR] = Conditionally Required, [O] = Optional, [\*] = FAI Planning

**Form 1: Part Number Accountability**

FIELD 1 [R\*]: PART NUMBER – Number of the FAI part.

FIELD 2 [R\*]: PART NAME – Name of the FAI part.

FIELD 3 [CR]: SERIAL NUMBER – Format must be as required per COLLINS LS and applicable engineering or customer standard(s).

FIELD 4 [R]: FAIR NUMBER – Must be unique and not repeated.

FIELD 5 [R\*]: PART REVISION LEVEL – All FAIs shall be performed to the engineering revision applicable on the purchase order line item or later unless otherwise stated. For Landing Gear purchase orders this shall be defined as the DIR revision. If no revision is listed on the PO line item, the supplier shall contact COLLINS LS for clarification. See Figure 1.

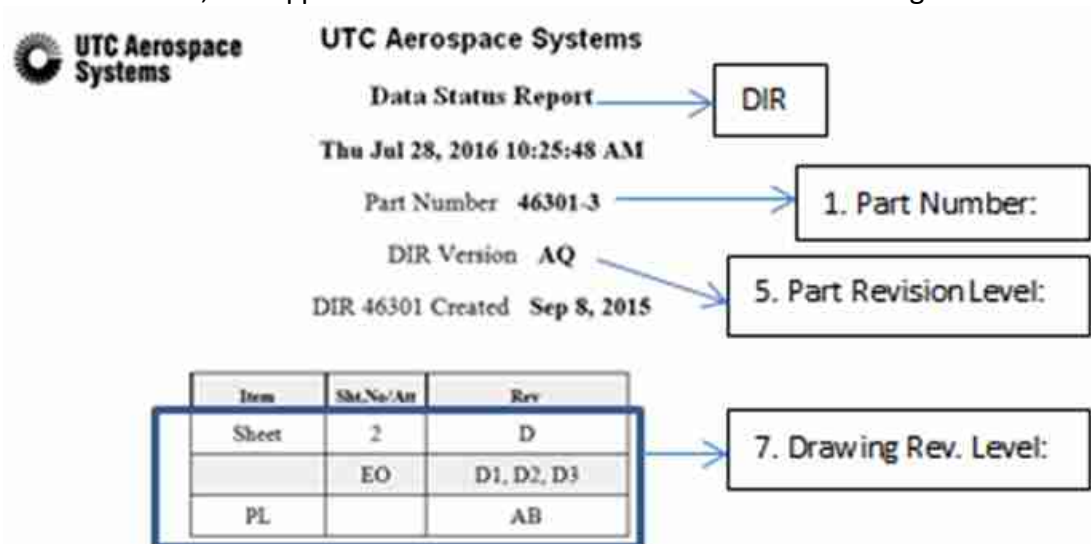


FIGURE 1

FIELD 6 [R\*]: DRAWING NUMBER – May not always be the same as the part number.

FIELD 7 [R\*]: DRAWING REVISION LEVELS - Complete listing of all associated engineering documents and their revisions (e.g., Sheet 2 Rev D, PL Rev AB, EO Revs D1, D2, D3). See Figure 1.

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- FIELD 8 [CR]:** ADDITIONAL CHANGES – Enter reference number(s) of any changes that are incorporated into the product as supplement or exclusion from mandatory drawing requirements, dispositioned QNs and/or approved ECPRs (for clarification purpose only). The Supplier is responsible for submitting a QN per LS-SBU-A001-SQM requirements for any nonconformance detected during or after the manufacturing process that requires disposition from COLLINS LS MRB. For assemblies with sub-components that have QN's, the QN number shall be included in Form 1, Field 8 of both the assembly and sub-component FAI reports. The QN number shall also appear on Form 1 of assembly FAI in Field 18 for the applicable sub-component. The sub-component FAI report shall list the QN number on Form 3 Field 11 for the applicable characteristic. The assembly level and sub-component FAI Reports must be checked as "incomplete" until all subcomponent FAI reports are checked as "complete". The QN must be closed and approved by COLLINS LS Engineering before approving the FAI. Each element of the disposition must be stamped and dated as evidence of completion. Any certifications for special processes required must reflect the QN number. An ECPR disposition is not to be used in place of a QN disposition for design characteristic non-conformances, including drawing errors.
- FIELD 9 [R]:** MANUFACTURING PROCESS REFERENCE - Traceability to the manufacturing record of the FAI part. Add the MPS Memo# for manufacturing plans requiring COLLINS LS and/or Collins Customer approval. When parts are purchased complete from a sub-tier supplier, Field 9 shall include the PO/Line# to the sub-tier, as well as CoC# from the sub-tier.
- FIELD 10 [R\*]:** ORGANIZATION NAME - As found on the COLLINS LS PO. In the case of sub-tier offload the sub-tiers name shall be used.
- FIELD 11 [R\*]:** SUPPLIER CODE – Supplier code as assigned to supplier.
- FIELD 12 [R\*]:** PURCHASE ORDER NUMBER – Include PO Line# for FAI part, e.g., “12345678 LINE 00010”. For lower lever parts within an assembly, include the PO and Line# of the deliverable part.
- FIELD 13 [R\*]:** DETAIL OR ASSEMBLY FAI – If a Detail FAI, unless a casting or forging, enter “N/A” in Form 1 Fields 15 – 18. If an assembly, casting, or forging, enter the appropriate information as required in Fields 15 – 18.
- FIELD 14 [R\*]:** PARTIAL / FULL FAI  
Full FAI: In addition to AS9102 requirements, a full FAI is required when any of the following occurs:
- New part number: considered to be the base part number as defined by the design authority. (e.g., BAC5307, LGPS1600, LGPS1601)
  - “Handed” parts (left- or right-hand detail or assembly) are to be considered unique and a separate complete FAI shall be performed for each.

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- c. FAI is no longer found to be on file or is found to be missing information/documents.
- d. When contractually directed.

Partial FAI: In addition to AS9102 requirements, a partial FAI is required when any of the following occur:

- a) Change in part revision (e.g., EOA1 released, etc.)
- b) Release of a new configuration (e.g., Manufacturing Control Drawings, Part change from C001 to C002, BAC -13 to -15, etc.)
- c) Previous FAIR was marked as Incomplete (e.g., QN on previous FAIR).
- d) For features or conditions related to any escapes/NOE to COLLINS LS or customers.
- e) When contractually directed.
- f) When an administrative change takes place to the design authority.
- g) For tabulated or table drawings (drawings that define multiple parts with the same base part number E.g., Bushings), when the drawing or table is updated, only the part numbers affected by the change need to have a partial FAI completed.

**BASELINE PART NUMBER [CR]:** Include the part number, revision, and FAIR number of the prior FAI.

**REASON FOR PARTIAL [CR] -** This field shall include specific reason(s) for the partial FAI, including the previous (WAS) and current (IS) conditions. (e.g., Was Rev A, Is Rev B; etc.)

**FIELD 15 [CR\*]: PART NUMBER:** Enter the part number(s) as listed on the drawing, the parts list, or embedded within the drawing (including casting/forging FAIs) or as in Form 1 Field 1 of:

- 1: Lower-lever FAI Report (Detail, Sub-assembly)
- 2: Source control supplier FAI Report
- 3: Proprietary supplier FAI Report
- 4: Manufacture's FAI Report
- 5: Child Company's FAI Report

**FIELD 16 [CR\*]: PART NAME:** Enter the part name(s) as listed on the drawing, the parts list, or embedded within the drawing (including casting/forging FAIs) or as listed in Form 1 Field 2 of:

- 1: Lower-lever FAI Report (Detail, Sub-assembly)
- 2: Source control supplier FAI Report
- 3: Proprietary supplier FAI Report
- 4: Manufacture's FAI Report
- 5: Child Company's FAI Report

**FIELD 17 [CR]: PART SERIAL NUMBER:** Enter the part serial number(s), as listed in Form 1 Field 3 of:

- 1: Lower-lever FAI Report (Detail, Sub-assembly)
- 2: Source control supplier FAI Report
- 3: Proprietary supplier FAI Report



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- 4: Manufacture's FAI Report
- 5: Child Company's FAI Report

FIELD 18 [CR]: FAI REPORT NUMBER: For COTS details, enter a certification traceability number. If details were supplied by COLLINS LS, enter the Shipping Authorization or Customs Invoice (or other COLLINS LS supplier shipping documentation) number. If the subcomponent has any QN's associated, record the QN number as well. Otherwise, enter the part FAI Report number as listed in Form 1 Field 4 of:

- 1: Lower-lever FAI Report (Detail, Sub-assembly)
- 2: Source control supplier FAI Report
- 3: Proprietary supplier FAI Report
- 4: Manufacture's FAI Report
- 5: Child Company's FAI Report

COMPLETE / INCOMPLETE [R]: The FAI Report shall only be marked as "complete" if there are no non-conformances listed on Form 1 and Form 3.

FIELD 19 [R]: SIGNATURE – Legible identification of the person verifying the evaluation activities have been completed and are included in the FAIR, this includes Form 2 and Form 3 completion. Note: electronic identification is acceptable.

FIELD 20 [R]: DATE – Date must include Day, Month, and Year.

FIELD 21 [R]: REVIEWED BY – FAIR reviewed/approved by: legible identification of the person from the organization who reviewed and approved the fair. Shall not be the same identification as in field 19. Note: electronic identification is acceptable.

FIELD 22 [R]: DATE – Date must include Day, Month, and Year.

FIELD 23 [R]: CUSTOMER APPROVAL – Manual or electronic identification unique to the COLLINS LS SQM representative who approved the FAIR. All full and partial FAI Reports for all detail, sub-assembly, and assembly parts shall be approved by COLLINS LS SQM or representative (e.g., Third Party Representative). All casting and forging FAIs shall be approved by COLLINS LS M&PT and/or Collins Customer as applicable.

FIELD 24 [R]: DATE – Date must include Day, Month, and Year.

**Form 2: Product Accountability – Materials, Special Processes, and Functional Testing**

FIELD 1 [R\*]: PART NUMBER – Number of the FAI part.

FIELD 2 [R\*]: PART NAME – Name of the FAI part.

FIELD 3 [CR]: SERIAL NUMBER – Format must be as required per COLLINS LS and applicable engineering or customer standard(s).

FIELD 4 [R]: FAIR NUMBER – Must be unique and not repeated.

FIELD 5 [R\*]: MATERIAL OR PROCESS NAME – Enter the note number for the applicable material(s) used or special processes as listed within the engineering or the specification. Materials and processes shall be listed in the order in which they were introduced or performed. If processes are performed multiple times (e.g., 2x Magnetic Particle Inspection), each occurrence shall be listed in separate rows with all information included. When multiple items appear in the same note they must be separated out.

For raw materials, full traceability to the original mill is required in accordance with LS-SBU-A001-SQM. Traceability is an unbroken record of documentation that includes a means to uniquely identify a particular part (e.g., s/n, lot date code, etc.). The supplier shall verify unbroken traceability to original material source (including documentation from subsequent distribution such as packing slips, sales orders, etc.). There shall be documentation showing each time the material moves and must be traceable through the heat/lot number. The supplier shall ensure that all certification requirements per the specification are captured. Due to the many possible certification types and layouts, the nomenclature used on the CoC, distributor, and mill certifications to describe the material shall exactly match the released engineering.

FIELD 6 [R\*]: SPECIFICATION NUMBER – Enter the raw material or special process specification number and the revision. If listed in the engineering, also include the applicable type, class, grade, etc. If a cancelled or superseded specification is called out on the released engineering, attach evidence of supersession.

FIELD 7 [CR]: CODE – Enter any required code from the end Customer for material or process listing, when required. (e.g., BAC 5019 is Boeing Process Code “304”). These are not COLLINS LS DOC 200 Codes.

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- FIELD 8 [R]: SUPPLIER CODE – Enter the complete and full Supplier name and address, including city, state, zip, etc., furnishing raw material or performing the special process. If material is purchased through distribution, also enter the distributor’s information. For COLLINS LS defined special processes, enter the COLLINS LS assigned Processor Number as found in COLLINS LS Document 200 Column A. Based on applicability within LS-SBU-A001-SQM for defined special processes, suppliers shall verify that special processors are on COLLINS LS Document 200 or customer approved prior to production.
- FIELD 9 [CR]: CUSTOMER APPROVAL VERIFICATION - Indicate if the special process or material source requires Customer or COLLINS LS approval (e.g., COLLINS LS Document 200 or if the material supplier is restricted per the material specification). Enter “Yes” if approved; “No” if approval is required but process source is not approved; or “NA” if customer approval is not required”.
- FIELD 10 [R]: CERTIFICATE OF CONFORMANCE NUMBER – Enter the raw material heat/lot number, certification number, Lab Test Report number, Manufacturing Traveler number (with attached verification, including operation number for each in-house performed process), or Shipping Authorization or Customs Invoice Number (or other COLLINS LS supplied shipping documentation if supplied by COLLINS LS). If the supplier is approved to perform the special process in house and does not generate a CoC, they can provide a copy of the traveler showing the special process operation. The traveler / process sheet must match the design authority requirements including revision of the specification.
- FIELD 11 [CR\*] FUNCTIONAL TEST PROCEDURE NUMBER – Enter any Functional or Acceptance Test Procedure (ATP) or Specification (including the revision) as called out on the purchase order or engineering. Enter the name, date, and revision of the Acceptance Test Procedure approval, as required.
- FIELD 12 [CR]: ACCEPTANCE REPORT NUMBER – Enter the Test Report Certificate number, Router number, etc., as required.
- FIELD 13 [O]: COMMENTS – Enter any comments.
- FIELD 14 [R]: SIGNATURE – Unique identification traceable to the person who signed Form 2.
- FIELD 15 [R]: DATE – Date must include Day, Month, and Year.

**Form 3: Characteristic Accountability, Verification, and Compatibility Evaluation**

- FIELD 1 [R\*]: PART NUMBER – Number of the FAI part.
- FIELD 2 [R\*]: PART NAME – Name of the FAI part.
- FIELD 3 [CR]: SERIAL NUMBER – Format must be as required per COLLINS LS and applicable engineering or customer standard(s).
- FIELD 4 [R]: FAIR NUMBER – Must be unique and not repeated.
- FIELD 5 [R\*]: CHARACTERISTIC NUMBER - Each design characteristic shall have a unique identifier. The ballooned documents shall have 100% accountability for all features including, but not limited to, all dimensions, notes, specifications, and drawings called out on the part drawing. It is recommended that drawing notes be ballooned first. All flag notes shall be uniquely ballooned. This includes a unique characteristic number for each location within the notes and within the field of the drawing. Form 3, block 8 shall include the flag note and the specified requirement for the Design Characteristic (the requirements as listed in the note or the detail part number). If multiple characteristics are dimensioned under a single characteristic (e.g., 8x 0.250 R), it is permissible to use only one balloon (except for true position) with the actual range (e.g., 0.247 – 0.253) for all 8 places. All true position characteristics must be accounted for separately with individual characteristic numbers. (e.g., If the requirement is true position 3 places, then it must have 3 individual unique character identifiers.) See Figure 2.

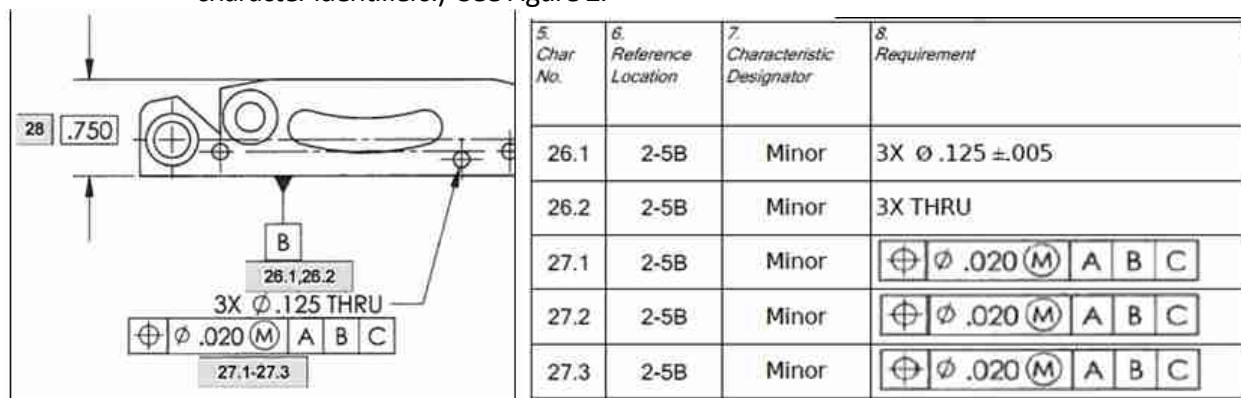


Figure 2

Multiple design characteristics within a note shall have a unique identifier assigned for each characteristic. Sub-balloons will be individually listed and accounted for on Form 3. Each characteristic within the note needs to be ballooned and accounted for separately:

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material, stock thickness, hardness, and heat treat. Each is a unique design requirement and therefore requires individual results to be recorded. A copy of ballooned sections of applicable specifications shall also be included. See Figure 3.

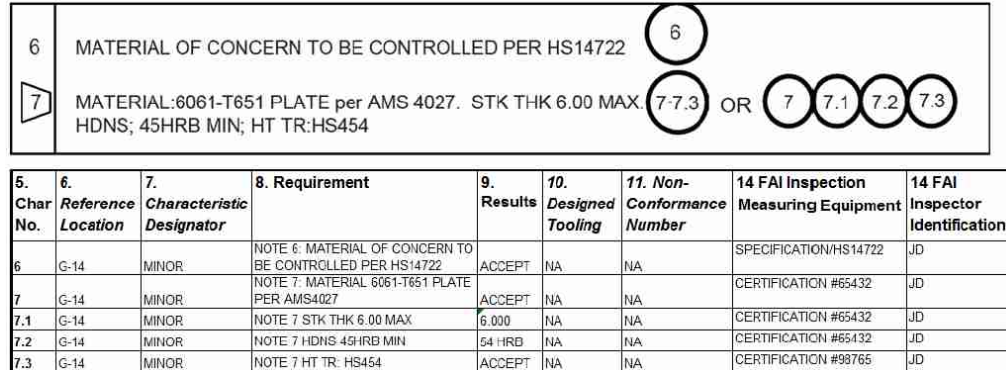


Figure 3

For DPD controlled parts or assemblies, the supplier shall balloon all captures as provided within the design authority model along with manufacturing data and include a screenshot of the model revision. Non-annotated features shall be assigned unique characteristics. Profile surfaces shall be designated with a single characteristic, assigned a tolerance in Form 3 block 8 and an actual range recorded in Form 3 block 9.

Reference dimensions, reference notes, and basic dimensions are optional, but if ballooned, must be assigned unique characteristic numbers, and listed on the FAI Form 3 with blocks 9-14 being reported as “N/A”.

For tabulated or table drawings (drawings that define multiple parts with the same base part number, E.g., Bushings), only the design features and flag notes applicable to the specific dash number having the FAI performed to need to be ballooned.

**FIELD 6 [R\*]:** REFERENCE LOCATION – Enter the drawing sheet# and zone# (E.g., SH1 ZN A1) or document page number (E.g., 1100K9100 PG 2, EO PG 3) of the ballooned characteristic.

**FIELD 7 [R\*]:** CHARACTERISTIC DESIGNATOR - Enter the characteristic classification (e.g., key, flight safety, critical, major, minor, etc.). Enter “minor” if not classified per ASQR-20.1.

**FIELD 8 [R\*]:** REQUIREMENT – Enter the complete drawing characteristics, features, notes, symbols, and specifications exactly as they are stated. This may require the breakout of additional requirements that are imposed including MS, AS, bosses, flanges etc., generated during the manufacture of the product. All notes and flag notes are to include the note number and complete text, including flag notes ballooned on the drawing(s). As applicable, ensure any characteristic multipliers are included in block 8 (this includes accounting for leader

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lines). Ensure each design characteristic is accounted for separately. When multiple requirements are listed in the same note, they must be separated out.

**SPECIFICATIONS ON DRAWINGS**

The supplier shall review all the specifications called out on the drawing and Purchase Order (including specifications embedded in other specifications) to determine if there are any embedded requirements. By accepting the specification, the supplier is also accepting any embedded specs or requirements that pertain to the FAI. Embedded specifications, (LGPS, Manufacturing Control Drawings, etc.) which have measurable final dimensions on the finished product shall be considered to be a characteristic and ballooned. When COLLINS LS approval is required within a specification, a copy of the COLLINS LS approval shall be included in the FAIR. Example: Material with Tensile Strength above 180 KSI, D6-1276, LGPS8000 etc. requires COLLINS LS approved Frozen Process Plan in accordance with to LS-SBU-A001-SQM.

**DESIGN SPECIFICATIONS CALLED OUT ON A DRAWING**

If characteristics are defined in the released engineering by referring to a design specification (E.g., Manufacturing Controlled Drawing 1100K9100, Port per AS6202-06, etc.) then these characteristics shall be accounted for on the FAI. All applicable characteristics must be accounted for on Form 3 by ballooning the actual design specification or clearly identifying the appropriate design specification characteristics on Form 3. This requirement applies to dimensional features that form a part of the manufacturing process. See Figure 4.

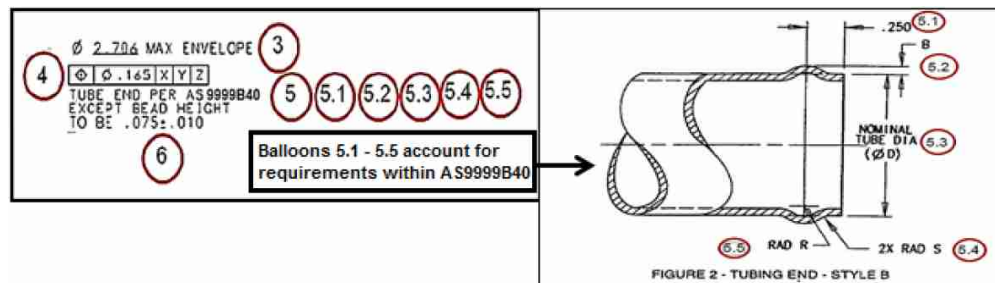


Figure 4

FIELD 9 [R]: RESULTS – Measurement results obtained for each characteristic inspected in variable numeric terms shall be listed to the same tolerance level or better (e.g., 3-place decimal requirement must have at least a 3-place decimal result). For general notes (e.g., Dimensions are in inches) the statement “Not Reportable” or “Noted” shall be used. When no variable methods apply, a positive statement of conformance must be used (e.g., Pass, Accept, Conforms, etc.). GO/NO-GO gages for attribute data are allowed. When attribute gaging or specialized tooling is used, traceability to that gage must be included. When qualified tooling is used as a go/no-go gauge, record the results as an attribute (e.g., Pass, Accept). GO/NO-GO gauges shall be used for all threads and splines.

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For characteristics which are not applicable, provide rationale (e.g., “not applicable for this dash number”, “to be completed at next assembly level” etc.).

If a part exceeds the specification for true position but is acceptable using the drawing bonus tolerance, then the supplier shall document this by the actual true position along with the words “Accept with MMC/LMC” in column 14. If the drawing /spec allow the use of multiple methods or alternate details, ensure the actual method /detail used is clearly indicated on Form 3. (e.g., “Part marking per Method 8 or 9”, indicate which method is used on Form 3 Column 14). Supplier shall verify that Key Characteristic requirements have been met, as applicable, per AS9103, ASQR-01, COL-ASQR-PRO-0003, LS-SBU-A001-SQM, etc.

- FIELD 10 [CR]: **DESIGNED TOOLING:** Enter specially designed tooling, including CNC programming or any other COLLINS LS approved special tooling as a means of inspection, making sure this tooling is traceable to a controlling number and it is under calibration control. This field is NOT used for common inspection equipment such as calipers, micrometers, scales, etc.
- FIELD 11 [CR]: **NON-CONFORMANCE NUMBER:** Record any non-conformance control document number for any characteristic outside of the tolerance or requirement (e.g., QN 123456).
- FIELD 12 [R]: **SIGNATURE –** Unique identification traceable to the person who signed Form 3.
- FIELD 13 [R]: **DATE –** Date must include Day, Month, and Year.
- FIELD 14 [R]: **INSPECTION EQUIPMENT AND INSPECTOR IDENTIFICATION –** Describe the inspection equipment (caliper, micrometer, scale, etc.) and the traceability identification (MIC # 123, Caliper# 456, Scale# 789, etc.) for the inspection equipment used for the product acceptance. For requirements with no measurable characteristics which list a specification (e.g., Part mark per LGPS 1600), enter the specification number (LGPS 1600). For requirements met by means of certification, enter the certification number. For informational drawing notes with no measurable characteristics, enter “Information” and/or “Visual”, as applicable. Also enter the identification (initials, stamp, etc.) of each inspector responsible for each result recorded in Field 9.













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Documents below marked with an asterisk [\*] shall be included as part of FAI planning prior to production. Suppliers shall use this listing during FAI Planning to determine applicability of documentation:

- 1: Completed and approved AS9102 Forms 1, 2, and 3 for full and partial FAI reports. Partial FAI Reports shall include Form 1 and all applicable forms/pages from previous FAI Reports.
- 2: Assembly FAI reports shall include all approved Form 1 for all sub-assy & detail FAI reports.
- 3\*: COLLINS LS purchase order – minimum page 1 & page(s) showing line item with DIR/DWG revision.
- 4\*: DIR dated same as or newer than that of the PO. Assembly DIR shall show all lower-level DIRs.
- 5: Any/all QNs associated with FAI part.
- 6: Any/all ECPRs associated with FAI part.
- 7\*: MPS approval memos.
- 8: ASQR-09.2 UPPAP Form 1
- 9\*: List of all applicable documents and their revisions used in preparation of the FAI report.
- 10: Supersession documents with characteristics ballooned.
- 11: Certificate(s) of Conformance for all fasteners and standard hardware.
- 12: Certificate(s) of Conformance for all raw material(s).
- 13: Certificate(s) of Conformance for all special processes with revision(s) used.
- 14: Screen shot showing process approvals from COLLINS LS and/or other required customer approvals.
- 15: Certificate(s) of Conformance for all sealant, grease, torque seal, etc.
- 16: Certificate(s) of Conformance for BAC 5008 approved fluids/coolants used and copy of APL.
- 17: Certificate(s) of Conformance for application of primer, paint, finishes, etc.
- 18: Material certs from manufacture(s) of all primer, paint, finishes, etc.
- 19\*: Copy of Acceptance Test Procedure(s) approved by COLLINS LS.
- 20: Copy of completed and accepted Acceptance Test Report(s).
- 21: Copy of stress engineering memo(s) approved by COLLINS LS.
- 22\*: Ballooned engineering – drawing(s), parts list(s), model(s), control drawing(s), specifications, etc.
- 23\*: Copy of source control or proprietary drawing and evidence of approval or review from COLLINS LS.
- 24: CMM reports/point maps with results ballooned corresponding to feature(s) listed in Form 3.
- 25: Color photo(s) of all FAI part identification, including serial number.
- 26: Color photo(s) of overall FAI part showing all sides/views.