# SABRe

## Supplier Management System Requirements

## Aerospace – Development Configured Parts

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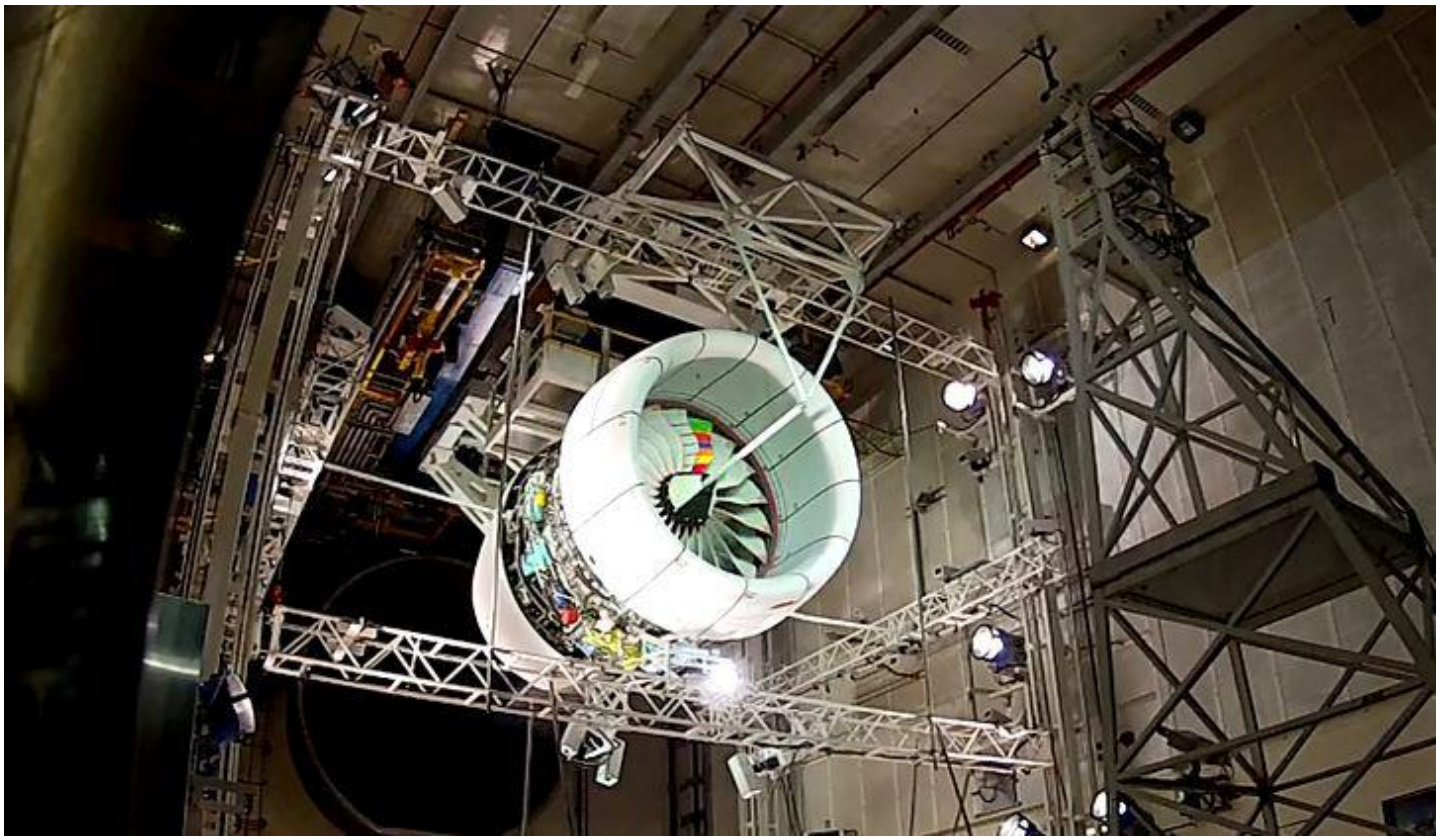
Edition 3



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# REVISION SUMMARY/ RATIONALE

SABRe3 Development configured parts (SABRe3 DCP) is applicable to the production of components that are produced from the component definitions owned by Rolls-Royce for the use within Rolls-Royce powerplant products used solely for non production purposes.

# FOREWORD

SABRe 3 DCP (Supplier Management System Requirements) is the external-facing element of the Rolls-Royce Management System, the purpose of which is to formally communicate specific Rolls-Royce requirements and expectations to the external supply chain.

The latest version along with all relevant supporting material, including forms and templates are available to view and download from the Rolls-Royce Global Supplier Portal (GSP) at https://suppliers.rolls-royce.com.

The external provider, hereafter referred to as Supplier, shall demonstrate compliance with the minimum standard of Business behaviours, Health, Safety and Environmental practices, applicable laws and regulations and act in a way that is ethical and corporately responsible as specified in the Rolls-Royce Supplier Code of Conduct which is available to view and download from the Rolls-Royce Global Supplier Portal (GSP).

Notice To Suppliers (NTS) is the method used by Rolls-Royce to communicate information to the external supply chain. Each NTS is designated a unique number to identify its contents from other documents. All NTS' can be found on the home page of the Global Supplier Portal (GSP). NTS documents should be viewed regularly (at least every 30 days); a record of review and action (if required) shall be maintained.

## INTRODUCTION

The requirements shall support compliance with Rolls-Royce obligations under Aerospace customer contracts and / or aviation authority approvals for the manufacture activity on development configured parts.
When becoming part of a supply chain supporting Defence product and / or services the supplements as contained in AQAP2310 shall apply in addition to the requirements of BS/EN/ISO 9001:2015.

SABRe 3 consists of:

General Requirements are based on the structure of and presupposes adherence to BS/EN/ISO 9001:2015 as a minimum standard, and is applicable at all times when operating under a Rolls-Royce approval unless otherwise defined in Appendix A.

Documented information (records) shall be retained in accordance with requirements in Appendix B.

Forms, templates and guidance are available on the Global Supplier Portal (GSP).

### 0.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

### 0.2 Quality Management Principles

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

### 0.3 Process Approach

Comply with BS/EN/ISO 9001:2015 as a minimum standard

#### 0.3.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard

#### 0.3.2 Plan-Do-Check-Act Cycle

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

#### 0.3.3 Risk Based Thinking

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

### 0.4 Relationship with Other Management System Standards

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

# QUALITY MANAGEMENT SYSTEMS REQUIREMENTS

## 1 SCOPE

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

SABRe 3 DCP is applicable to the production of components that are produced from the component definitions owned by Rolls-Royce for the use within Rolls-Royce powerplant products used solely for non production purposes.

It is also applicable to the production of components that are produced from the component definitions owned by Rolls-Royce for the use within Rolls-Royce powerplant products used solely for non production purposes.

SABRe 3 DCP details specific requirements and expectations of Rolls-Royce in addition to those that are already contained in the stated international standards.

SABRe 3 DCP is applicable at all times when operating under a Rolls-Royce approval.
Suppliers shall ensure that the requirements set out within this document are cascaded down to all levels of the supply chain, and validate that the contractual requirements have been met in all tiers.

## 2 NORMATIVE REFERENCES

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

## 3 TERMS AND DEFINITIONS

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

Refer to SABRe definitions for additional information. This document is available to view and download from the Rolls-Royce Global Supplier Portal (GSP).

## 4 CONTEXT OF THE ORGANISATION

### 4.1 Understanding the Organisation and its Context

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

### 4.2 Understanding the Needs and Expectations of Interested Parties

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

### 4.3 Determining the Scope of the Quality Management System

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

Supplemental Requirements
Suppliers shall:

a) At all times comply with the requirements of the Rolls-Royce Supplier Code of Conduct and with other relevant Rolls-Royce codes of practice as set out on the Rolls-Royce Global Supplier Portal (GSP), as amended or replaced from time to time by Rolls-Royce including its standard security and Health and Safety requirements.
b) Hold a Rolls-Royce and / or Third Party approval appropriate to their type and level of supply as stipulated in Appendix A. The Supplier shall notify Rolls-Royce should the approval be suspended or revoked or when major Non Conformities (NCRs) are raised by the Certifying Body.
c) Establish a documented Quality Management System (QMS) that is independently assessed and certified by a Certification Body. The Certification Body must be accredited by a recognised national Accreditation Body to provide audit and certification of Quality Management Systems.
d) Conduct an annual SABRe 3 self-assessment as detailed on the Global Supplier Portal (GSP) and ensure full compliance to all requirements. The results shall be made available to Rolls-Royce on request.

### 4.4 Quality Management System and its Processes

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

## 5 LEADERSHIP

### 5.1 Leadership and Commitment

#### 5.1.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

#### 5.1.2 Customer Focus

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

### 5.2 Policy

#### 5.2.1 Establishing the Quality Policy

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

#### 5.2.2 Communicating the Quality Policy

Comply with BS/EN/ISO 9001:2015 as a minimum standard.

#### 5.2.3 Establishing and Communicating the Safety Policy

The safety policy of the suppliers shall:
a) Provide a framework for setting product safety objectives.
b) Include a statement that encourages product safety reporting and ensures that no punitive action will result from this.
c) Include a commitment to continual improvement of product safety management.

*Note: This policy can be referred to as a quality and product safety policy, when quality and product safety are combined together.*

### 5.3 Organizational Roles, Responsibilities and Authorities

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Resource the organisation sufficiently to fully comply with these requirements and confirm and maintain compliance throughout the sub-tiers.
b) Define the personnel accountable for sub-tier Suppliers control and product quality (across all production shifts) and ensure that they have the authority to stop production to correct quality problems as they arise.
c) Establish a procedure for task and shift handovers that ensures that all necessary information is communicated (verbally and in written form) between the out-going and in-coming personnel.
d) Establish a procedure to escalate issues and associated risks, including a reporting mechanism for product escapes if product has been released to Rolls-Royce or any customer.

## 6 PLANNING

### 6.1 Actions to Address Risks and Opportunities

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Implement a risk management process, such as ISO 31000, across their organisation and put in place appropriate governance such that they:

- Carry out a robust assessment of the risks, in particular those that could threaten their future performance or solvency, and detail these in a risk register
- At least annually, carry out a review of the effectiveness of their risk management system (including internal controls)
- Ensure appropriate assurance is in place to ensure that risk treatments (including internal controls) are proportionate and effective.

b) Ensure appropriate treatment activities are in place to mitigate key risks to an acceptable level, including but not limited to:
- Product safety
- Shortages of key skills and people
- Product quality issues (including counterfeit parts)
- Financial risks
- Compliance risks (including Health, Safety & Environment, Legal, Export Control and Anti-Bribery and Corruption)
- Protection of Intellectual Property.

c) Plan, implement and control a process for managing operational risks including the following as a minimum:
- Risk identification – identify sources of risk, their cause and effects and their potential business impact
- Risk analysis – consider the likelihood and level of impact of the identified risks
- Risk evaluation – compare the level of risk found during the analysis process and prioritise risks treatment
- Risk treatment – prepare contingency and / or mitigation plans to reduce risk levels
- Monitoring and review of the risk management activities to ensure controls are effective.

d) Establish robust crisis management and business continuity plans that ensure the organisation can continue to operate in the event of a serious incident and is able to recover to an operational state within a reasonably short period. It is recommended these plans include:
- The identification, analysis, evaluation and / or mitigation of risks related to business continuity that includes (but is not limited to) the following:
  - Product/service, facility or individual skill uniqueness
  - Single points of failure (including sub-tier Suppliers) or key processes
  - The loss of key data or Information Technology (IT) systems
  - Disruption due to fire, explosion or natural disaster
  - Disruption to the supply chain.
- Access to alternative development tools and facilities
- Remote backup and archive of data
- Access to alternative IT systems
- Action plans and timescales for business recovery
- Contacts, process owners and procedures to follow in the event of an emergency
- A strategy to control, review periodically and communicate plans to all relevant personnel
- Disaster recovery and contingency planning for storage of data related to the product/service.

e) Immediately inform their Rolls-Royce Purchasing contact regarding the following:
- Major incidents affecting the Supplier
- Risks that could impact the continuity of the Supplier's business / operations, particularly single points of failure
- Changes to third party or other party certification including, lapse / withdrawal / major audit findings
- Change of the nominated Quality Representative
- Significant change to the Quality Management System
- Change in ownership or discontinuation of business activities
- Breaches of IT Security systems (Cyber Security)
- Risks with the supply of substances used in the production or physical make-up of products, due to laws and regulations concerning the control or use of such substances that may be published from time-to-time.

f) Ensure that chemical substances constituting or contained in products supplied to Rolls-Royce are not restricted under any applicable Chemical Legislation.

g) Provide sufficient information / data as to enable Rolls-Royce to comply with its own obligations under applicable Legislation related to the use of chemicals, including that associated with hazardous materials in products.
h) The Supplier shall consider the elimination of materials and chemical substances from products and processes as applicable according to the requirements of the Rolls-Royce Global Substance Elimination Policy, MLC132.
i) Comply with the requirements so as to ensure continuity of supply when the Supplier has an obligation under any applicable Chemical Legislation.
j) Ensure that data related to the use of substances and mixtures that has been provided to the Supplier by Rolls-Royce is passed onto sub-tier / subcontract suppliers (when applicable).
k) Submit risk register and business continuity plans to Rolls-Royce on request.

### 6.2 Quality Objectives and Planning to Achieve Them

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 6.3 Planning of Changes

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## 7 SUPPORT

### 7.1 Resources

#### 7.1.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard

#### 7.1.2 People

Comply with BS/EN/ISO 9001:2015 as a minimum standard

#### 7.1.3 Infrastructure

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Identify key process equipment and provide resources and capacity for machine / equipment and tooling maintenance. Develop and execute an effective maintenance system[1].
b) Use a multi-disciplined team to develop robust project plans when implementing new plant, facilities or equipment.
c) Assess production feasibility to ensure that product can be produced in accordance with the standards, specifications and tolerances specified by Rolls-Royce or relevant industry standards.
d) Refer to sections 6 and 8, when planning, developing and implementing new technology with respect to opportunities for new manufacturing technologies.

*NOTE 1: A maintenance system can include: planned maintenance activities; identification and provision of critical spare parts; identification and control of all safety-critical plant and equipment; the use of equipment performance metrics and objectives; the use of predictive maintenance or other relevant techniques to improve equipment performance to meet objectives.*

#### 7.1.4 Environment for the Operation of Processes

Comply with BS/EN/ISO 9001:2015 as a minimum standard

#### 7.1.5 Monitoring and Measuring Resources

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) The supplier shall validate & operate their measurement system in accordance to the 'MSA-For development product'

b) Ensure that monitoring / measuring equipment used for the final verification / inspection of product is independent to those used for product measurement during production activities or will be re-calibrated / verified prior to use where independence cannot be achieved.
c) Ensure that the personnel nominated to perform product verification activities are trained and competent in the use of the monitoring / measuring equipment.
d) Ensure instructions given to operators and inspectors use the same units of measurement as used on the process and inspection equipment. If conversion of measurement units is required it shall be done by the Suppliers Technical Authority and formally issued.
e) Check monitoring / measuring equipment against a calibrated reference of known size and form at planned intervals between calibration events.
f) Perform a review of measurement capability when tolerances, personnel or environmental conditions have changed.
*NOTE*: See section 7.1.5 on Global Supplier Portal (GSP) for forms and guidance.

### 7.1.6 Organizational Knowledge

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## 7.2 Competence

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## 7.3 Awareness

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## 7.4 Communication

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## 7.5 Documented information

### 7.5.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 7.5.2 Creating and Updating

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 7.5.3 Control of Documented Information

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Rolls-Royce documents are available to view and download from the Rolls-Royce Global Supplier Portal (GSP)**.**

Supplemental Requirements
Suppliers shall:
a) Comply with the current revision of documents / specifications at the date of product launch and any further revisions thereafter.
b) Comply with the export control policy as published on the Rolls-Royce Global Supplier Portal (GSP).
c) Flow down Rolls-Royce documents / specifications to sub-tier Suppliers (when applicable).
d) Ensure that the translation of Rolls-Royce documents into a Suppliers' national language is performed by a competent translator prior to use[1].
e) Ensure that all technology is managed in accordance with applicable export control legislation including the flow down of such requirements to subcontractors and sub-tier suppliers.
f) Control records related to Rolls-Royce product and / or services in a manner that will allow the timely recovery of a readable version of any records (including electronic records) by ensuring that:
   - Records are retrievable on request within 24 hours
   - Documents / records requiring authorisation by Rolls-Royce are written in English or dual language (i.e. the Suppliers national language plus an accurate English translation made from the original document / record)
g) Ensure that hand-written amendments to records are dated and signed in ink, with the original information being legible after the change.
h) Retain documents and records in accordance with the specified periods in Appendix B.

i) Ensure on-site data access to those Aviation Authorities having jurisdiction over Rolls-Royce sites.
*NOTE 1: If an audit is carried out i.e. NADCAP, AS9100 etc. then the Supplier should ensure that an appropriate interpreter is available to translate any other Supplier documentation as necessary.*

# 8 OPERATION

## 8.1 Operational Planning and Control

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Plan and schedule product and / or services in order to meet Rolls-Royce requirements.
b) Ensure that production planning / scheduling includes (but is not limited to) the following:
    - Sales and operation planning
    - Master production schedule
    - Material requirements planning
    - Control of purchasing activities
    - Control of production activities
c) Establish a process to plan[1] and manage production capacity that includes (but is not limited to) the following:
    - Availability of resources for labour and equipment
    - The impact of new product introduction / product introduction on available capacity
d) Resolve discrepancies between the available capacity and the demands of Rolls-Royce.
e) Monitor the effectiveness of labour, equipment and processes to ensure planning assumptions are accurate.
f) Communicate (flow down) production schedule information to subcontractors / sub-tier Suppliers.

*NOTE 1: Plans shall be profiled in month for a 2 year time period.*

### 8.1.1 Operational Risk Management

Suppliers shall:
a) plan, implement, and control a process for managing operational risks to the achievement of applicable requirements, which includes as appropriate to the organization and the products and services:
    - Assigns responsibility for operational risk
    - Definition of risk assessment criteria i.e. likelihood, consequences, risk acceptance
    - Identification and assessment and hows it communicated throughout operations
    - Identify, implement and manage actions to mitigate risks that exceeds acceptance criteria
    - Acceptance of risks remaining after the implementation of mitigating actions

### 8.1.2 Configuration Management

Supplier shall:
a) plan, implement, and control a process for configuration management as appropriate to the supplier organization and its products and services in order to ensure the identification and control of physical and functional attributes throughout the product lifecycle. This process shall:
    - control product identity and traceability to requirements, including the implementation of identified changes;
    - ensure that the documented information (e.g., requirements, design, verification, validation and acceptance documentation) is consistent with the actual attributes of the products and services.
b) ensure that the component produced complies at the end with all data stated on the definition/drawing directly or indirectly.
c) ensure that the configuration at all times is fully traceable to Rolls Royce. Any change to parts not directly configured by Rolls Royce must be indicated to Rolls Royce prior to their introduction.

### 8.1.3 Product Safety

Suppliers shall:
a) Plan, implement, and control the processes needed to assure product safety, as appropriate to the supplier organisation and its products and services.
b) These processes include:
    - Hazard identification, including reactive and proactive methods

- Analysis, assessment, and control of safety risks associated with identified hazards
- Identification and management of changes that may impact product safety
- Assessment of the effectiveness of safety management processes
- Provision of training on product safety responsibilities to relevant personnel
- Communication of product safety information, including safety-critical information, safety events, and changes to safety procedures, as applicable
- Reporting of safety events to the customer, authorities, and Type Certificate holder in accordance with Customer and Regulatory requirements.

c) Notify the Rolls-Royce Purchasing contact within 24 hours of any potential unsafe condition.
d) Retain documented information determined as being necessary for the effectiveness of product safety management.

### 8.1.4 Prevention of Counterfeit Parts

Suppliers shall:
a) Document a counterfeit parts prevention process and ensure it includes a mechanism for reporting counterfeit and/or suspected counterfeit parts to the Rolls-Royce Purchasing contact as soon as possible but not later than within 24 hours of discovery.

## 8.2 Requirements for Products and Services

### 8.2.1 Customer Communication

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 8.2.2 Determining the Requirements for Products and Services

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 8.2.3 Changes to Requirements for Products and Services

Comply with chapter 8.2.4 of BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Not change product or manufacturing method related requirements stated on the Rolls-Royce Purchase Order or its referenced documents.

## 8.3 Design and Development of Products and Services

Design and development of products and services is out of scope for SABRe DCP.

## 8.4 Control of Externally Provided Processes, Products and Services

### 8.4.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Select, manage and monitor key subcontractor / sub-tier Suppliers through the following controls:
    - Assess Suppliers capability prior to placing orders
    - Undertake oversight prioritised based upon risk
    - Evaluate root cause activities where non-conformances occur
    - Measure performance:
        - Delivered product quality
        - Delivery schedule performance
    - Conduct load and capacity reviews with key subcontractor / sub-tier Suppliers annually or following significant load increase
    - Take appropriate containment and corrective action with poorly performing subcontractor / sub-tier Suppliers
    - Enlist adequate and skilled resources to undertake the Suppliers management activities including the management of special processes.

b) Only purchase products and services from sources holding appropriate approval as stipulated in Appendix A.
c) Ensure that purchasing information / documentation and requirements for subcontractors / sub-tier Suppliers is flowed down the supply chain (applicable SABRe requirements).
d) Specify the supporting documents with the purchased product or service confirming compliance to specifications.
e) Work within the scope of their QMS approval and the scope of the approval as communicated by the relevant Rolls-Royce regions.
f) Hold a Rolls-Royce and / or Third Party approval appropriate to their type and level of supply as stipulated in Appendix A.
g) Demonstrate through documented evidence that subcontractors / sub-tier Suppliers (including any Direct Buy Vendor) engaged in the manufacture of product are being managed to Rolls-Royce requirements.

### 8.4.2 Type and Extent of Control

Comply with BS/EN/ISO 9001:2015 as a minimum standard

#### 8.4.2.1 Work Transfers

Suppliers shall:
a) Complete and submit the form(s) associated with this activity to their Rolls-Royce purchasing contact.
b) Ensure that no change takes place until the Supplier has submitted and received approval to proceed from Rolls-Royce.
c) Ensure that work transfer documentation / information is communicated along the purchase order cascade.
d) Demonstrate that any export control risks associated with the work transfer have been properly assessed and any changes to, or requirements for new export authorisations have been planned.

*NOTE*: See section 8.4.2.1 on Global Supplier Portal (GSP) for forms and guidance.

#### 8.4.2.2 Verification of Externally Provided Processes and Services

Suppliers shall:
a) Ensure 100% verification of products from subcontractors / sub-tier Suppliers

### 8.4.3 Information for Suppliers

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## 8.5 Production and Service Provision

### 8.5.1 Control of Production and Service Provision

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Create a test / inspection plan including:
- Where in the sequence the testing / inspection operations are performed
- A reference to each product characteristic to be tested / inspected at each operation
- The type of equipment required and any specific instructions associated with their use
- Criteria for acceptance and / or rejection
- A reference to product test / inspection activities to be witnessed by the customer

b) Ensure 100% verification of all product characteristics in their final condition. This is not required for purchased standard catalogue hardware.
c) Ensure product test / inspection activities are conducted in an acceptable environment. Lighting conditions at the surface will align to RRP58007 (Visual Inspection) or other process specific standards. Supplemental lighting can be used.
d) Record measurement results in accordance with rules defined in the SABRe Brief “Rules on significant figures and rounding”.
e) Produce records of test and inspection, these shall include as a minimum:
- Item inspected
- Activity performed

- Procedure / Instruction for the inspection activity
- Date of inspection or surveillance activity
- Personnel who performed the inspection or surveillance
- Results of the inspection / surveillance

f) Where actual measurement values are routinely recorded during inspection, these shall not be deliberately destroyed, deleted or exposed to hazards detrimental to record retention (e.g. fire or water hazard). This includes features inspected:
   - Using equipment where a report containing actual measurement values is automatically created (e.g. Coordinate Measurement Machines, computer connected digital equipment etc.)

*NOTE*: See section 8.5.1 on Global Supplier Portal (GSP) for forms and guidance.

*NOTE: Processes / characteristics should be 'on target' (i.e. centred on the Engineering specified nominal value).*

*NOTE*: See section 8.5.1 on Global Supplier Portal (GSP) for forms and guidance.

### 8.5.1.1 Control of Equipment, Tools and Software Programs

Suppliers shall:
a) Establish a system for the management of tooling, jigs, fixtures and controlling programs and software that includes (but is not limited to) the following:

- Unique tool identification
- Validation of tool prior to release to manufacture
- Protection from damage and deterioration during storage
- Maintained as fit for purpose
- Storage and recovery
- Tool set-up
- Tool life control / tool-change programmes
- Tool design modification documentation, including engineering change level
- Tool modification and revision.

b) Ensure that tooling, jigs and fixtures owned by Rolls-Royce and / or Rolls-Royce customers (including shared ownership) are controlled as shown above, plus the following:

- Identified as Rolls-Royce owned
- Tooling register established
- Used only for Rolls-Royce applications
- Audited annually (stock take) and periodic preservation / condition checks for tooling held in storage
- Modifications only after written authorisation by Rolls-Royce
- Disposal only after written authorisation by Rolls-Royce
- Provision of tool information (including photographic information) to Rolls-Royce on request.

### 8.5.1.2 Validation and Control of Special Processes

Supplier shall:
For processes where the resulting output cannot be verified by subsequent monitoring or measurement, the supplier organization shall establish arrangements for these processes including, as applicable:
a) definition of criteria for review and approval of the processes;
b) determination of conditions to maintain the approval;
c) approval of facilities and equipment;
d) qualification of persons;
e) use of specific methods and procedures for implementation and monitoring the processes;
f) requirements for documented information to be retained.
g) Ensure full compliance with special process instructions referenced in the Rolls-Royce definition

### 8.5.1.3 Production Process Verification

Comply with the requirements of "MSA-For development product"

Supplemental Requirements

Suppliers shall:

- Use capable measurement equipment in accordance AS 13003 (see 7.1.5 b).

- When characteristics measured during the manufacturing process (not accessible in the final product) have potential to be affected by subsequent operations (e.g. welding or heat treatment), the supplier must obtain agreement from the Rolls-Royce Technical Authority on whether additional verification is required

Fixed Production Method applies to all Suppliers when the product definition specifies “Fixed Process Control" to RRES 90000 (Engineering Control of Manufacturing Source & Method).

Suppliers shall:

- Complete and submit the form(s) associated with this activity to their Rolls-Royce Technical Authority (see forms) along the purchase order cascade for initial approval and approval of any change to source and / or method of production in accordance with the requirements of RRES 90000.
- Fixed Production Method applies to all Suppliers when the product definition specifies “Fixed Process Control" to RRES 90000 (Engineering Control of Manufacturing Source & Method).

*NOTE*: See section 8.5.1.2 on Global Supplier Portal (GSP) for forms and guidance.

Vision Standards
Suppliers shall:

a) Ensure Non Destructive Testing (NDT) personnel are examined in accordance with the applicable NDT personnel qualification and certification standard, e.g. EN 4179, NAS 410, SNT-TC-1A, ISO 9712. Weld inspectors and personnel performing visual inspection to detect material discontinuities are included in this category.
b) Ensure non-NDT personnel engaged in product verification and inspection activities are examined at three (3) yearly intervals. Eyesight acuity shall be a minimum of Curpax N5, Jaeger #2 or equivalent in at least one eye and when using both eyes together. Colour vision perception shall be examined at five (5) yearly intervals.
c) Ensure welding personnel are examined at 2 yearly intervals. Eyesight acuity shall be a minimum of Curpax N5, Jaeger #2 or equivalent for near vision, Snellen 20 / 30 or equivalent for far vision.
d) Ensure Vision tests are performed by suitably trained and qualified personnel. For NDT personnel, this duty shall be performed by individuals designated by the Responsible Level 3 or a qualified medical practitioner.
e) Ensure Vision correcting eyewear, e.g. glasses, contact lenses, etc. used to pass the vision examination are worn when performing product verification/inspection activities. Any changes to vision correcting eyewear will require a re-examination before being used. The use of darkened lenses or those that darken on exposure to light are prohibited.
f) Ensure that where personnel fail, a colour perception examination, their capability to distinguish and differentiate colours used in performance of applicable product verification / inspection activities is determined and documented.

For the appointment of competent persons, including any required qualification
Suppliers shall:

g) Ensure employees directly inspecting product are formally authorised.
h) Ensure product is released by authorised personnel.

### 8.5.2 Identification and Traceability

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:

a) Control the unique and serialised identification of the product when required to do so as specified in the Rolls-Royce product definition (see forms).
b) Accept the release documentation where product is provided by Rolls-Royce. This documentation is sufficient evidence of product traceability up to the point of the release documentation being created. In such cases, it is not necessary to verify test reports and original raw material manufacturer source certificates.

*NOTE*: See section 8.5.2 on Global Supplier Portal (GSP) for forms and guidance.

### 8.5.3 Property Belonging to Customers or Suppliers

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 8.5.4 Preservation

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Provide secure storage facilities for product, equipment, tools and material.
b) Ensure the conditions of storage prevent deterioration and damage of stored items.
c) Assess the condition of product in stock at appropriate planned intervals in order to detect deterioration.
d) Establish an inventory management procedure that includes (but is not limited to) the following:
    - Rule for determining safety stock levels
    - Method to guarantee inventory accuracy
    - Key performance indicators to monitor inventory
    - Method to monitor, review and action slow-moving work in progress
    - Control of shelf life product.
e) Ensure that access to storage facilities is restricted to authorised personnel.
f) Use appropriate transport to ensure that the product is delivered in a timely manner and ensures that the product will be received in a condition that is fit for purpose (i.e. when the Rolls-Royce standard transport network and collection service is not specified or will not/ cannot be used).
g) Ensure that products are packaged to a standard that provides adequate protection against damage, deterioration and tampering during shipment, storage and distribution.
h) Comply with the latest version of the Protection Packaging and Labelling document.
i) Develop and establish a Foreign Object Damage (FOD) prevention program in accordance with AS/EN/SJAC 9146:2017.

*NOTE*: See section 8.5.4 on Global Supplier Portal (GSP) for forms and guidance.

### 8.5.5 Post-Delivery Activities

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 8.5.6 Control of Changes

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Not approve or incorporate any changes to the ordered part.

## 8.6 Release of Products and Services

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Provide separate release documentation with each delivery to Rolls-Royce.
b) Ensure that the release documentation:
    - Is written in English or in a language specified by the customer
    - Refers to a single purchase order / schedule
    - Refers to a single part number
    - Is legible and protected from damage/ deterioration
    - Is attached to the outside of the secondary packaging
    - A copy of the Certificate of Conformity (CoC) is placed on the outside of the secondary packaging and a copy inside the secondary packaging
    - Contains the following information as a minimum:
        - Unique traceable document reference number
        - Suppliers' name, address and telephone number
        - Delivery address
        - Rolls-Royce purchase order number (including purchase order item number)
        - Rolls-Royce plant and storage location (when specified)
        - Description of the product (as referenced on the Rolls-Royce purchase order or drawing)
        - Part number (as referenced on the Rolls-Royce purchase order)
        - Kit number (when applicable) – plus a list of part numbers, quantities, serial numbers

- Traceable reference (serial, batch, lot, heat, cast numbers - as applicable)
- Quantity
- Date of despatch
- Conformance / compliance statement[1]
- Export Classification of the product under the External providers' national jurisdiction
- Details of any export authorisation applicable to the product including any conditions or restrictions relating to the use, re-export or re-transfer of the product and its associated technology
- The Country of Origin of the product as defined under the External providers' national jurisdiction
- The name and signature of person authorised to release the product to the customer[2].

c) Provide additional information (when applicable):
- Classification of product
- Approval plan number
- Quality plan number
- Concession / Deviation Permit category and number except Category 3 (referenced concession / Deviation Permit to be provided)
- Hazardous substances / safety data sheet (safety data sheet to be provided)
- Shelf life (cure date, batch, group) – no mixed cure dates / batches
- Virus-free declaration (for computer software)
- Cross reference to the original raw material manufacturer's name (stockists / distributors)
- Cross reference to customer name and purchase order (material processors).

d) Provide a certificate of analysis or raw material manufacturer's certificate with the shipment of raw material that contains the following:
- Traceable reference to batch, lot, heat, cast numbers
- Chemical analysis including constituent elements and percentages
- Physical analysis (i.e. stress strain data, and temper).

e) Provide an authorised release certificate if applicable and requested.
f) Retain documented information[3] of release documentation in accordance with Appendix B.

*NOTE 1: Typical compliance statement: "Certified that the whole of supplies hereon have been inspected / tested and unless otherwise stated, conform in all respects to specification, drawing and purchase order requirements".*
*NOTE 2: Electronically signed release documentation is acceptable, subject to prior approval from the Rolls-Royce Technical Authority.*

*NOTE 3: Retained documented information of release documentation held electronically shall contain all of the information shown on the original document and a traceable reference to the person authorised to release the product to customer.*

## 8.7 Control of Nonconforming Outputs

Suppliers shall:
a) Establish a method of detection and feedback of product nonconformities or process noncompliance.
b) Take necessary actions to fully contain problems within 48 hours.
c) Immediately notify their Rolls-Royce purchasing contact and their Rolls-Royce Technical Authority (or other impacted customers) of any delivered nonconforming product and confirm that the notification has been received by Rolls-Royce.
d) Segregate any undelivered nonconforming product and hold until a response related to the disposal of the product has been received from Rolls-Royce.
e) Stop shipment of product when notified of non-conformance by Rolls-Royce until appropriate corrective action has been established.

*NOTE: Where Product nonconformities are identified by Rolls-Royce, an associated cost of non-quality charge as published on the Global Supplier Portal (GSP) may apply.*

### 8.7.1 Nonconforming Outputs

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 8.7.2 Nonconforming Documented Information

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 8.7.3 Deviation Permits and Concessions

Requests for concession applications will only be accepted under exceptional circumstances and may be subject to cost of non-quality charges as published on the Global Supplier Portal (GSP).

Suppliers shall:
a) Ensure that written authorisation has been granted by their Rolls-Royce purchasing contact prior to the shipment of a product which does not conform to specified requirements.
b) Complete and submit the form(s)[1] associated with this activity to their Rolls-Royce purchasing contact or through eConcessions (electronic concession system) where access has been granted by Rolls-Royce.
c) Take appropriate corrective action and document it within the concession form and / or deviation permit.
d) Flow the non-conformance documentation along the purchase order cascade.
e) Mark the product as indicated on the deviation permit / concession[2], including (but not limited to) the relevant concession category and concession number allocated by Rolls-Royce in accordance with the applicable identification marking method (and location) specified in the product definition.
f) Attach an orange coloured concession label[2,3] to the primary, secondary and tertiary packaging (as applicable) that states the concession category and concession number allocated by Rolls-Royce.

*NOTE 1: Forms related to German defence products shall be written in German.*

*NOTE 2: For concessions sentenced as category 1, 2 or X only.*

*NOTE 3: Concession labels are only applicable to Rolls-Royce Aerospace contracts / purchase orders being delivered to Rolls-Royce UK, Rolls-Royce Deutschland and Rolls-Royce Singapore.*

*NOTE*: See section 8.7.3 on Global Supplier Portal (GSP) for forms and guidance.

### 8.7.4 Control of Re-worked (in Production) Product

Suppliers shall:
a) Rework product in accordance with controls specified within the process specifications on the product definition or to an agreed rework procedure authorised by Rolls-Royce.
b) Ensure that instructions for rework, including re-verification / inspection requirements are accessible to and utilised by the appropriate personnel.

## 9 PERFORMANCE EVALUATION

## 9.1 Monitoring, Measurement, Analysis and Evaluation

### 9.1.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 9.1.2 Customer Satisfaction

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:
a) Monitor quality and delivery performance using key performance indicators[1].
b) Ensure 100% quality performance and 100% on-time and in-full delivery performance is achieved and maintained[2].
c) Immediately inform the Rolls-Royce purchasing contact when it is identified that delivery schedules are not (or will not be) achieved. A recovery plan must then be submitted within 24 hours to the Rolls-Royce purchasing contact.
d) Use a cross-functional team to develop and deploy a reactive and preventative continual improvement policy and plans to meet Rolls-Royce performance expectations.

*NOTE 1: Where Rolls-Royce has provided the Supplier with a scorecard the Supplier will use the scorecard as a key performance indicator.*

### 9.1.3 Analysis and Evaluation

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## 9.2 Internal Audit

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:

a) Establish an annual audit programme (product verification audit and production process / special process audits) that includes internal production and subcontract activities, to verify compliance to planned arrangements related to Rolls-Royce contracts. The audit programme shall be created and prioritised based on product and process risk.
b) Conduct cross-functional (e.g. quality and manufacturing) product audits at appropriate stages of production using a product that has been selected at random from the current production process and covering all significant products to determine the following:
   - Production method provides a record to demonstrate that all operations are complete
   - Verification / inspection records demonstrate that all operations and all features are appropriately verified
   - Dimensional acceptability to product definition[1]
   - Visual acceptability to product definition[1]
   - Functional performance test to product definition (where applicable).[1]

*Note 1: Independent equipment, tooling, programs, etc. to be used.*

## 9.3 Management Review

### 9.3.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 9.3.2 Management Review Inputs

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 9.3.3 Management Review Outputs

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## 10 Improvement

### 10.1 General

Comply with BS/EN/ISO 9001:2015 as a minimum standard

### 10.2 Nonconformity and Corrective Action

Comply with BS/EN/ISO 9001:2015 as a minimum standard

Supplemental Requirements
Suppliers shall:

a) Review the effectiveness of the problem solving process at periodic intervals and take appropriate actions to improve (e.g. at Management Review or similar).

### 10.3 Continual Improvement

Comply with BS/EN/ISO 9001:2015 as a minimum standard

## Appendix A – Quality Management System Certification Requirements

| | Supplier Type | Rolls Royce Approval Required? | Minimum Third Party Approval Requirements (Suppliers can define higher requirements based upon risk) |
|---|---|---|---|
| Production Product and Development Product | Production components, including all Subtiers - all classifications | Yes[10] | AS/EN/JISQ 9100 |
| | Components with development configuration definitions and Critical and Significant parts classification.[15] | Yes[14] | AS/EN/JISQ 9100 |
| | Components with Development Configuration Definitions and either Business Sensitive or Unclassified parts classification.[15] | Yes[14] | ISO 9001 |
| | Special Processes (MLC127 Nadcap processes and non-Nadcap processes)) for development configuration definitions.[15] | No | AC7004 or ISO 9001 |
| | Metallic Raw Material Manufacturer (RR aerospace grade material e.g., MSRR, RRMS, EMS) | Yes | AS/EN/JISQ 9100 |
| | Metallic Raw Material Manufacturer (national/international grade material e.g., AMS) | No[1] | ISO 9001 |
| | Metallic Raw Material Reprocessor (RR aerospace grade material e.g., MSRR, RRMS, EMS) | Yes[9] | ISO 9001 |
| | Metallic Raw Material Reprocessor (national/international grade material e.g., AMS) | No | ISO 9001 |
| | Sub-tier conventional rough machining (including test material removal, Band sawing bar stock, removal of casting risers etc) using material issued by the supplier (purchaser) and where the product verification and release is performed by the supplier (purchaser). | No | ISO 9001 |
| | Sub tier conventional machining and cold forming operations of non-RRES90000 controlled parts using material issued by the supplier (purchaser) and where the product verification and release is performed by the supplier (purchaser). | No | AS/EN/JISQ 9100 |
| | Non-metallic material, Metallic materials in non-conventional form, and consumables material manufacturer | No | as per RRMS30031 requirements |
| | Casting & Forging manufacturers | Yes[3] | AS/EN/JISQ 9100 |
| | Special Processes (MLC127 Nadcap processes) for production make-to-print components | Yes[9] | AC7004 & Nadcap **or** AS/EN/JISQ 9100 & Nadcap |
| | Special Processes for production make-to-print components (non-Nadcap processes) | Yes | AS/EN/JISQ 9100 |
| | Non destructive test houses for production make-to-print components (i.e., facilities that only perform NDT) | Yes[9] | AC7004 & Nadcap **or** AS/EN/JISQ 9100 & Nadcap **or** ISO 17025 & NADCAP |
| | Commercial-Off-The-Shelf (COTS) components | No | ISO 9001 |
| | Standard catalogue components | No[4] | ISO 9001 |
| | Sub tiers to Standard Parts Manufacturer | No | ISO 9001 |
| | Deliverable software | Yes | AS/EN/JISQ 9100 |
| | Scrapping of parts | No[11] | ISO 9001 |
| | Decals/Transfers, Name Plates | No | ISO 9001 |
| | Ground Support Equipment (engine covers, blanks etc.) | Yes[9] | ISO 9001 |
| | Rolls-Royce Qualified Standard Parts | No[13] | AS/EN/JISQ 9100 |
| Manufacturing or Maintenance Services | Integrator | Yes | AS/EN/JISQ 9100 or AS9120 |
| | Raw Material Stockist / Distributor | No | ISO 9001[5] |
| | Rolls-Royce Component Stockist | Yes[9] | AS/EN/ 9120 **or** ASA-100 |
| | Materials Testing Laboratory [acceptance and release of production material (Chemical, Metallographic, Mechanical testing Uniaxial and constant load testing)] | No | Nadcap **or** ISO/IEC 17025 **or** Equivalent National Accreditation[2,6] |
| | Inspection and measurement services | No | ISO/IEC 17025 **or** AS/EN/JISQ 9100 **or** AC 7004 |
| | Calibration laboratories | No | ISO/IEC 17025 **or** calibration traceable to a laboratory holding ISO/IEC 17025 |

**Note 1:** Use of continuous cast steel bar products is restricted for use unless it is procured from a Rolls-Royce approved mill, allowed by product definition or is approved by the Rolls-Royce Technical Authority
**Note 2:** Captive laboratories may utilise AS/EN/JISQ 9100 provided that the scope incorporates Manufacture and Testing of Material, and the supplier participates in the Rolls-Royce Approved Proficiency Testing Programme (https://ptpscheme.com)
**Note 3:** SABRe Approval required only when a Rolls-Royce casting or forging control specification is invoked by the Rolls-Royce product definition.
**Note 4:** Only qualified manufacturers (i.e., they appear on the qualified products list) shall be used when specified in a related technical specification.
**Note 5:** Stockist/distributor must provide traceability to an approved raw material manufacturer.
**Note 6:** All Rolls-Royce specifications and requirements for the testing must be flowed down to the facility completing the testing by their direct customer. Additionally, for materials controlled by RRMS30031, exceptions to approval requirements may be noted in MLC104.
**Note 9:** In case 3rd party approval of AS/EN/JISQ 9100 is not required than only SABRe 3 Aerospace supplemental applies for Rolls Royce approval
**Note 10**: Compliance with RRES90009 must be established with each affected Rolls-Royce entity.
**Note 11:** Supplier who dispose of scrap products and/or material on behalf of Rolls-Royce shall be Rolls-Royce approved
**Note 13**: Approval to RRES 90080 is required. If the manufacturer is using special processes to make qualified Rolls-Royce standard parts to RRES 90080, then a full SABRe compliance will be required in addition to the special process approval.
**Note 14**: Rolls Royce Aerospace Approval required to SABRe 3 Aerospace-Development Configuration Parts
**Note 15**: Can be used to support bench test, rig test, flight test or destructive testing applications

## Appendix B – Minimum Document Retention Periods

Category A Indicates the record will be retained for statutory or regulatory requirements. The minimum time period for a Category A record relating to products will be ten years after the product type is withdrawn from use (i.e. withdrawal of type certificate or notification of the withdrawal for support in the case of military aerospace products).

Category B Indicates the record will be retained for business requirements. The retention period for Category B records will be six years however this may be adjusted based on the business requirement.

| SABRe Clause | Document / Record | SABRe Edition 3 DCP Archiving Category |
|---|---|---|
| 6,1 | Records of risk management | B |
| 7.1.5 | Records of MSA | A |
| 7,2 | Records of training and competence | Period of employment +3 Years |
| 8.4.1 | Records of purchasing / subcontracting | B |
| 8.4.1 | Records of receipt inspection and supporting documentation | A |
| 8.4.1 | Maintain records of subcontractor / sub-tier supplier monitoring | B |
| 8.4.2.1 | Records of work transfers (source change) | B |
| 8.5.1 | Records of variation management for products specified as "Fixed Process Control" | A |
| 8.5.1 | Records of variation management for product **not** specified as "Fixed Process Control" | B |
| 8.5.1.1 | Tooling control records | B |
| 8.5.1.3 | Records of vision standards | Period of employment +3 Years |
| 8.5.1.3 | Records of product verification for product specified as "Fixed Process Control" | A |
| 8.5.1.3 | Records of product verification for product **not** specified as "Fixed Process Control" | B |
| 8.5.1.3 | Fixed process control | A |
| 8.5.2 | Records of product identification, traceability and serialisation | A |
| 8,6 | Records of release documentation | A |
| 8,7 | Records related to the control of nonconforming product | A |
| 8.7.3 | Records of deviation permits / concessions | A |
| 8.7.4 | Records of reworked product | A |
| 9,2 | Records of internal audits | B |
| 10,2 | Records of corrective action | B |

## Appendix C – Key Product Characteristic Classifications

| Classification | Drawing Symbol | What this means |
|---|---|---|
| Critical | ⊕ | Critical characteristics are the most important on the component and failure could directly lead to a hazardous failure. |
| Significant | ⊖ | Significant characteristics are important characteristics which through a chain of events could lead to a hazardous failure but the product is designed to prevent this occurring. Failure however could be very disruptive to our customers. |
| KCF | KCF or Flag Note | These directly affect the performance of our product (e.g. fuel efficiency), typically these require special controls such as variation management. |
| Unclassified | Not Applicable | Unclassified characteristics are those that do not meet the criteria for Critical, Significant, KCF or CCF. |

| Change History | | | | | |
|---|---|---|---|---|---|
| **Revision** | **Date** | **Description of Change** | **Author** | **Owner** | **Approval** |
| 1.0 | 1 Sep 2019 | New edition | Robert Starcke | Paula Adkins | Paula Adkins |

## Document update policy

This document may be updated periodically. Major updates will be indicated by an increase to a higher revision number (e.g. revision 1.0 to revision 2.0). Minor updates and corrections will be indicated by a decimal change in the revision number (e.g. revision 1.0 to revision 1.1).