
Title : **Supplier Quality Requirements**

Controlled : Quality
Copy Procurement

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REPORT

Summary

As noted on the attached purchase order and/or agreement, compliance with the designated clauses of this document is necessary to meet the Supplier Quality Requirements of Fokker Landing Gear B.V hereinafter referred to as FLG.

These provisions supplement, but do not supersede the presently existing terms and conditions of the purchase order and/or agreement.

The purpose of this document is to clarify the quality assurance provisions incorporated in Fokker Landing Gear B.V. purchase orders and/or agreement. In the purchase order you will find quality assurance requirements pointed out by numbers referring to this document. This document will give you the full text of the requirements.

Revision

The latest revision of this document may be confirmed by viewing the FLG website at:
<http://www.fokkerlandinggear.com/Supplier-Management>.

Questions

Questions regarding this document should be directed to the FLG procurement department.

prepared/department: M. Berman / Quality Assurance	checked/department: R. Dukker / Quality Assurance
issue date: 01-JUL-2014	approved/department: R. Dukker / Quality Assurance

Date	Version	Definition / reason	Concerned: page / paragraph
180894	0	First edition	All
300996	1	<ul style="list-style-type: none"> • AQAP 1 becomes AQAP 110 • AQAP 4 becomes AQAP 130 • AQAP 9 becomes AQAP 131 • Textual adaptations • DSP becomes SP 	All
230198	2	<ul style="list-style-type: none"> • Approved by is changed • JAA Form 1 toegevoegd. • Material Safety Data Sheet is new 	Introduction Q-req. 1601 Q-req. 3003
010699	3	<ul style="list-style-type: none"> • Textual adaptations • BS 5750 replaced by ISO • DIN 50049 replaced by EN 10204 / ISO 10474 + text 	All Q-req. 0201, 0202, 0203, Q-req. 1611, 1612,1613 en 1614
010900	4	<ul style="list-style-type: none"> • Form one COC, COA added • CE certificate IIA , IIB and IIC added 	Q-req. 1601 Q-req. 1601A en 1601B Q-req. 1601C, 1601D en 1601E
301105	5	<ul style="list-style-type: none"> • Change to Stork layout • AS9100 added • ISO-9001, ISO-9002 and ISO-9004 becomes ISO-9001:2000 • AQAP-110 becomes AQAP-2110 • MIL-STD-1523 becomes AS1933 • Textual adaptions 	All
270606	6	<ul style="list-style-type: none"> • Requirement 0202 added • Requirement 0806 added • Requirement 1611, 1612, 1613 added 	3 5 10
251110	007	<ul style="list-style-type: none"> • Company name changed from Stork SP Aerospace B.V. to Fokker Landing Gear B.V. hereinafter referred to as FLG. • Summary changed. • Requirement 0201: <ul style="list-style-type: none"> ○ Removed: MIL-Q-9858, RAQ-1 ○ Changed: AS9100 to AS/EN9100 and ISO-9001-2000 to ISO 9001 ○ Added: AS9120, AC7004. • Requirement 0803: <ul style="list-style-type: none"> ○ Added: or as indicated on FLG's purchase order. ○ 	All 1 4 5
251110	007	<p><i>Continued:</i></p> <ul style="list-style-type: none"> • Requirement 0804: <ul style="list-style-type: none"> ○ Removed: "in accordance with AS 1933". • Requirement 0806: 	5 6

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		<ul style="list-style-type: none"> ○ Removed: "using the following data:...". • Requirement 1101: <ul style="list-style-type: none"> ○ Removed: "or MIL-STD-45662". • Requirement 1505 and 1506: <ul style="list-style-type: none"> ○ Removed: MIL-P-4861. ○ Added: SAE AMS2817. • Requirement 1507: <ul style="list-style-type: none"> ○ Title changed from "PROTECTIVE OIL" to "PRESERVATION". • Requirement 1508: <ul style="list-style-type: none"> ○ Removed: <p>AGE CONTROL OF RUBBER ITEMS The supplier shall maintain cure date (vulcanisation date) and batch number control in accordance with AS1933. No articles shipped to SPA shall have a cure date over four (4) quarters at time of receipt. All articles shipped shall be appropriately marked with applicable cure date and batch number.</p> ○ Added: <p>AGE CONTROL FOR ELASTOMER PARTS AND PARTS CONTAINING ELASTOMERS The supplier shall ensure that items which have shelf life limitations shall have at least 5/6 of the shelf life remaining upon receipt at FLG. For items containing age sensitive elastomeric material reference is made to SAE AS1933 and/or SAE ARP5316. Packaging and labeling according to respective specifications.</p> • Requirement 4002: <ul style="list-style-type: none"> ○ Removed: In case there no comments are received from FLG within 1 month, then it is considered that the plan is approved by FLG and is applicable. 	7 8 8 8 12
100911	008	• Added general FOD requirement	4
041111	009	• Added requirement 0908 Key Characteristics	7
270213	010	<ul style="list-style-type: none"> • Requirement 1301 modified • Requirement 1601 modified. 	8 of 13 9 of 13
260613	011	• Added general EXPORT CLASSIFICATION AND CONTROL requirement	2 of 13
18-DEC-13	12	<ul style="list-style-type: none"> • Changed document from QM002E to QM002 • Added JSF (F-35) as GENERAL REQUIREMENTS, HANDLING OF CTE/CTM CHARACTERISTICS. • Added requirement 0807 TRACEABILITY OF SERIALIZED PARTS WITHOUT PHYSICAL SERIALIZATION MARKING. • Changed requirement 0908 KEY CHARACTERISTICS. • Changed requirement 1301 NONCONFORMING MATERIAL (CONCESSION). Added missing text "" • Changed requirement 1505 SINGLE PACKAGE. 	1 6 8 9 10

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		<p>Added Parts which are serialized and marking is done by Bag & Tag shall be packed in one (1) unit per bag.</p> <ul style="list-style-type: none"> Removed requirement 1601A FORM ONE CERTIFICATE OF CONFORMITY (FORM ONE COC). Removed requirement 1601B FORM ONE CERTIFICATE OF AIRWORTHINESS (FORM ONE COA). Removed requirement 1601C EC-MACHINERY DIRECTIVE; DECLARATION OF CONFORMITY (IIA). Removed requirement 1601D EC-MACHINERY DIRECTIVE; DECLARATION OF INCORPORATION (IIB). Removed requirement 1601E EC-MACHINERY DIRECTIVE; DECLARATION OF COMPLIANCE FOR SAFETY COMPONENTS (IIC). Changed requirement 1605 FIRST ARTICLE INSPECTION (FAIR). <ul style="list-style-type: none"> Changed title from FIRST ARTICLE INSPECTION (FAIR) to FIRST ARTICLE INSPECTION (FAI). Removed full text and changed to: The supplier shall prepare, approve and release a partial (delta) or full FAI in accordance with AS9102 and instruction QM018. This instruction contains both the AS9102 requirements as the specific requirements of FLG. Removed requirement 3002 CADMIUM ACT. 	11
			13
01-JUL-14	13	<ul style="list-style-type: none"> Revision Changed: FLG website to: http://www.fokkerlandinggear.com/Supplier-Management (Was: http://www.fokker.com/Supplier-Management) GENERAL REQUIREMENTS Changed general requirements reference EXPORT CLASSIFICATION AND CONTROL to: EXPORT CLASSIFICATION AND CONTROL For all PO shipments to FLG, Supplier shall indicate the following information on the Shipping documents and Invoice. Supplier shall indicate all classification and control information for each individual Purchase Order Line: 1. Country of Origin: If Supplier is the manufacturer, then indicate the country where Supplier is manufacturing the goods. If Supplier is a distributor, then indicate the country where the acquired goods are manufactured. For country indication the 2-digit ISO code shall be used. 2. Tariff Code: Supplier shall indicate the Tariff Code in accordance with REGULATION (EU) No 927/2012, this regulation establishes the goods nomenclature, referred to as the "Combined 	1
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		<p>Nomenclature”, or in accordance with the (US) Harmonized Tariff Schedule of the United States International Trade Commission.</p> <p>3. Export Control Classification: The Export Control Classification indicated by Supplier shall be in accordance with the applicable Classification List;</p> <p><u>For goods specifically enumerated on the Common Military List of the European Union (EUCML) and/or the United States Munitions List (USML), or specially designed parts or technology therefor:</u></p> <ul style="list-style-type: none"> - If the goods are of non-US origin, the goods must be classified using the EUCML; - If the goods are of US origin (US Manufactured, or based on US technology), the goods must be classified using both the EUCML and the USML classification sequence; <p><u>For goods designed for commercial (civil) use:</u></p> <ul style="list-style-type: none"> - If the goods are of non-US origin, the list of controlled dual-use items as set out in Annex I to EU Regulation 428/2009 shall be used to establish if the goods are dual use and to acquire the ECCN (Export Control Classification Number). - If the goods are of US origin (US Manufactured), the US CCL (Commodity Control List) shall be used to establish if the goods are dual use and to acquire the ECCN (Export Control Classification Number). <p>4. Export License Number: If the goods are indicated as controlled for export, Supplier shall apply for an Export License and indicate the number of the granted Export License, or the used License Exemption or License Exception.</p> <p>5. Destination Control Statement If the goods are of US origin and indicated as controlled for export, Supplier shall include on its invoice and shipping documents (e.g. packing slip, bill of lading, etc.) the applicable Destination Control Statement according to ITAR §123.9 or EAR §758.6.</p> <p>Was:</p> <p>EXPORT CLASSIFICATION AND CONTROL <i>For all PO shipments to FLG, Supplier shall indicate the following information on the Shipping documents and Invoice. Supplier shall indicate all classification and control information for each individual Purchase Order Line:</i></p> <p>1. Country of Origin: <i>If Supplier is the manufacturer, then indicate the country where Supplier is manufacturing the goods. If Supplier is a distributor, then indicate the country where the acquired goods are manufactured. For country indication the 2-digit ISO code shall be used.</i></p> <p>2. Tariff Code: <i>Supplier shall indicate the Tariff Code in accordance with REGULATION (EU) No 927/2012, this regulation establishes the goods nomenclature, referred to as the “Combined Nomenclature”, or in accordance with the (US) Harmonized Tariff Schedule of the United States International Trade Commission.</i></p> <p>3. Military Classification: <i>The Military Classification indicated by Supplier shall be in accordance with the applicable Classification List;</i></p> <p><u>For goods specially designed, developed or modified for</u></p>		
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	<p><u>military use:</u></p> <ul style="list-style-type: none"> - If the goods are of US origin (US Manufactured), the USML (United States Munitions List) shall be used. - If the goods are of non-US origin, the EUCML (European Common Military List) shall be used. <p><u>For goods designed for commercial (civil) use:</u></p> <ul style="list-style-type: none"> - If the goods are of US origin (US Manufactured), the US CCL (Commodity Control List) shall be used to establish if the good are dual use and to acquire the ECCN (Export Control Classification Number). - If the goods are of non-US origin, the list of controlled dual-use items as set out in Annex I to EU Regulation 428/2009 shall be used to establish if the good are dual use and to acquire the ECCN (Export Control Classification Number). <p>4. The Export License Number: If the goods are indicated as military goods according to the ECCN, Supplier shall apply for an export license and indicate the number of the granted Export License.</p> <ul style="list-style-type: none"> • GENERAL REQUIREMENTS Added: HAZARDOUS MATERIALS IN JSF PROGRAMS For this program, specific instructions are applicable regarding the use of Hazardous Material. In the JSF programs some hazardous materials are banned or restricted from use. Work instruction QM030 informs you which products are banned and which products are subject to review and approval by FLG! All FLG purchase orders The latest version of QM030 can always be found on the FLG website: http://www.fokkerlandinggear.com/Supplier-Management. • GENERAL REQUIREMENTS Added: FEDERAL ACQUISITION REGULATION & DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT Work instruction QM088 has been designed for Suppliers to FLG in order to meet the requirements of the Federal Acquisition Regulation and the Defense Federal Acquisition Regulation Supplement, for all JSF programs within FLG. This instruction informs which FAR and DFARS rules are of specific interest for the F35 program. The latest version of QM088 can always be found on the FLG website: http://www.fokkerlandinggear.com/Supplier-Management • 1601 CERTIFICATION PURCHASE ORDER (COC) Typo corrected: 'to' (was 'o'). 	<p>8</p> <p>8</p> <p>14</p>
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GENERAL REQUIREMENTS

Supplier shall always meet the following requirements:

FOREIGN OBJECT DEBRIS/ DAMAGE (FOD)

Supplier shall maintain good housekeeping and where applicable a Foreign Object Debris/Damage (FOD) prevention program, to preclude introduction of foreign objects into any deliverable item. Supplier shall employ appropriate housekeeping practices to assure timely removal of residue/debris generated during manufacturing operations or tasks. Supplier shall determine if sensitive areas that have a high probability for introduction of foreign objects should have special emphasis controls in place for the manufacturing environment.

EXPORT CLASSIFICATION AND CONTROL

For all PO shipments to FLG, Supplier shall indicate the following information on the Shipping documents and Invoice. Supplier shall indicate all classification and control information for each individual Purchase Order Line:

1. Country of Origin:

If Supplier is the manufacturer, then indicate the country where Supplier is manufacturing the goods. If Supplier is a distributor, then indicate the country where the acquired goods are manufactured. For country indication the 2-digit ISO code shall be used.

2. Tariff Code:

Supplier shall indicate the Tariff Code in accordance with REGULATION (EU) No 927/2012, this regulation establishes the goods nomenclature, referred to as the "Combined Nomenclature", or in accordance with the (US) Harmonized Tariff Schedule of the United States International Trade Commission.

3. Export Control Classification:

The Export Control Classification indicated by Supplier shall be in accordance with the applicable Classification List;

For goods specifically enumerated on the Common Military List of the European Union (EUCML) and/or the United States Munitions List (USML), or specially designed parts or technology therefor:

- If the goods are of non-US origin, the goods must be classified using the EUCML;
- If the goods are of US origin (US Manufactured, or based on US technology), the goods must be classified using both the EUCML and the USML classification sequence;

For goods designed for commercial (civil) use:

- If the goods are of non-US origin, the list of controlled dual-use items as set out in Annex I to EU Regulation 428/2009 shall be used to establish if the goods are dual use and to acquire the ECCN (Export Control Classification Number).
- If the goods are of US origin (US Manufactured), the US CCL (Commodity Control List) shall be used to establish if the goods are dual use and to acquire the ECCN (Export Control Classification Number).

4. Export License Number:

If the goods are indicated as controlled for export, Supplier shall apply for an Export License and indicate the number of the granted Export License, or the used License Exemption or License Exception.

5. Destination Control Statement

If the goods are of US origin and indicated as controlled for export, Supplier shall include on its invoice and shipping documents (e.g. packing slip, bill of lading, etc.) the applicable Destination Control Statement according to ITAR §123.9 or EAR §758.6.

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HANDLING OF CTE/CTM CHARACTERISTICS

Characteristics indicated as CTE (critical to engineering) and/or CTM (critical to manufacturing) shall be handled as indicated in the latest version of FLG instruction QM025. The latest version of QM025 can always be found on the FLG website: <http://www.fokkerlandinggear.com/Supplier-Management>. Please note that measuring report shall always accompany parts.

HAZARDOUS MATERIALS IN JSF PROGRAMS

For this program, specific instructions are applicable regarding the use of Hazardous Material. In the JSF programs some hazardous materials are banned or restricted from use. Work instruction QM030 informs you which products are banned and which products are subject to review and approval by FLG! All FLG purchase orders The latest version of QM030 can always be found on the FLG website: <http://www.fokkerlandinggear.com/Supplier-Management>.

FEDERAL ACQUISITION REGULATION & DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT

Work instruction QM088 has been designed for Suppliers to FLG in order to meet the requirements of the Federal Acquisition Regulation and the Defense Federal Acquisition Regulation Supplement, for all JSF programs within FLG. This instruction informs which FAR and DFARS rules are of specific interest for the F35 program. The latest version of QM088 can always be found on the FLG website: <http://www.fokkerlandinggear.com/Supplier-Management>

SPECIFIC REQUIREMENTS

Supplier shall meet the following requirements when pointed out in FLG purchase orders and/or agreements:

0201 QUALITY SYSTEM

The supplier shall establish and maintain a documented quality system, which is acceptable to the Quality department of FLG and complies with or has the level of AS/EN9100, AS9120, ISO 9001, AQAP-2110, AC7004 or equivalent.

0202 QUALITY SYSTEM

Combined with quality requirement 0201.

0501 RETURNING OF DOCUMENTS

If one (1) year after completion of the order the supplier has not received a new purchase order for the same part number, unless otherwise stated, the supplier shall return to FLG all the drawings, the drawing revisions and the specifications furnished together with the purchase order.

0503 DOCUMENTATION CHANGE CONTROL

The supplier shall maintain adequate control to ensure drawing revisions, incorporated through purchase order changes, are implemented in a timely manner. Items so affected shall be identified, segregated and separately packed and delivered, from the reached progress. Also the supplier shall be held responsible for checking drawings, specifications or changes and implementation of this clause against changes called out on the FLG purchase order or purchase order change.

0504 RECORD KEEPING

Documented evidence such as COC's (certificates), product- and process documents, measuring- and test-reports, shall be maintained by the supplier and/or sub-supplier for a period of ten (10) years, after delivery of the order to FLG and be available for verification. Before destruction of above named documents, permission in writing from the Quality department of FLG is required.

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0601 APPROVED SUBSUPPLIERS

The supplier shall use only FLG and/or its customer approved sources for sub-contracting processes and operations. The names of these approved sources can be obtained from the FLG Procurement department.

0602 CONTROL OF SUBSUPPLIERS

The supplier shall be responsible for conformance of all items procured from every tier of his sub suppliers and shall ensure that the requirements of this purchase order, quality requirements, applicable drawings and specifications are incumbent upon his procurement sources.

0603 LIST OF INTENDED SUBSUPPLIERS

In advance the supplier shall notify in writing the FLG Quality department via the FLG Procurement department of all sub-suppliers to be used for the sub-contracting of processes and operations.

0604 QUALIFIED PRODUCTS

Suppliers of products such as electronic components, switches, primers, paints, oil, welding wire, products to MIL-specifications, MS, NAS and DIN standards, etc., are direct responsible to FLG, that the products furnished, have been manufactured by the source listed in the applicable qualified products list (QPL).

If there is a shelf life or cure date for the product, respectively the expiration date or cure date must be noted on the certification and product package.

0605 GOVERNMENT OR CUSTOMER RIGHT OF ACCESS

During performance of FLG purchase orders, the supplier shall agree that his quality control, inspection and manufacturing processes are subject to review, verification and analysis by authorised government, FLG or its customer. These representatives shall, at all times, have access to any part of the supplier's and sub supplier's premises, where any activities related to the contract are in process. The supplier shall make available to these representatives the accommodation and facilities required for the performance of their tasks. They shall also be given any assistance required by them or they shall be given any information required for the verification, documentation or release of material.

A copy of the purchase order and if applicable the quality agreement, will be furnished to the representative concerned, on request.

0606 GOVERNMENT INSPECTION

All the supplier's activities related to this purchase order are at all times and places subject to government inspection and test. Government inspection is required prior to shipment from your plant and the inspection acceptance shall be confirmed by the signature of the government representative on the certificate accompanying the consignment. Upon receipt of this purchase order the government representative will contact you so that appropriate planning for government inspections can be accomplished.

If there is no government representative contacting you before you start production for this order the FLG Quality department shall be notified immediately.

The certificate (COC) annex "b" (dofa) Stanag 4107, shall always apply to military (government) orders. After the contract between the supplier and FLG has been concluded, the government may at any time decide to carry-out government inspections on the supplier's premises with respect to all activities and tests performed. Such a government decision can never lead to any price changes in the contract between the supplier and FLG.

0801 TRACEABILITY OF FLG-SUPPLIED MATERIAL

It shall be the supplier's responsibility to ensure, that material furnished by FLG, shall be traceable to the raw material certificate of the material supplier by batch-, charge- or heat-treat number or by batch- or serial numbers assigned by FLG. The supplier is to verify, that the material certificates are received from FLG.

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0802 MATERIAL TRACEABILITY, GENERAL

The supplier shall follow procedures suitable for accurate traceability of parts to the applicable material certificate.

0803 PRODUCT TRACEABILITY AND DOCUMENTATION

If specified on the drawing or in the specification listed on the drawing, all parts shall be traced to the serial numbers or batch number assigned by the supplier or as indicated on FLG's purchase order. If more than one lot of material is used for the manufacture of a number of parts, a separate group of serial numbers or a separate batch number shall be assigned for each lot. The parts of each lot shall be kept segregated during all in-process and final operations. For reasons of product traceability the supplier shall follow procedures which enable nonconforming parts to be recognised in the records, by using the batch or serial number. This also applies to parts that can be reworked within the drawing requirements and parts that are to be scrapped.

The supplier shall also notify FLG in writing, through the Procurement department, of all batch and/or serial numbers which are not conform to the drawing requirements or parts that have been scrapped.

0804 ASSEMBLY DATE CONTROL

The supplier shall maintain assembly date control. All articles shall be appropriately marked with the applicable assembly date in accordance with the drawing and/or specification.

If the drawing and/or specification do not specify any requirements in this respect, the assembly date shall be marked clearly on the packaging of each individual article.

0805 RAW MATERIAL IDENTIFICATION

The supplier shall mark raw materials, castings and forgings furnished to FLG with an identification or traceability code, using impression stamps, paint, labels or a pneumatic vibrating pencil. This shall be performed in accordance with the drawing or specification requirements. When nothing is prescribed, it is performed at the supplier's discretion. The code shall be traceable to the applicable raw material certification.

0806 PRODUCT IDENTIFICATION

The supplier shall identify the product or assembly in accordance with the specification listed on the drawing and area indicated on the drawing.

0807 TRACEABILITY OF SERIALIZED PARTS WITHOUT PHYSICAL SERIALIZATION MARKING

(See FLG website <http://www.fokker.com/Supplier-Management> for example of lay-out for serialized item tag)

1. Each part should be individually tagged with a label attached to the part. If a label can't be physically attached to the part, the label shall be placed inside the bag holding the part.
2. All parts should be individually bagged.
3. Supplier shall assure that the location and attachment of the label will not cause damage or premature removal of the label prior to reaching its intended destination.
4. Markings shall be non-fading, clear, legible and durable (capable of lasting throughout shipment and inside storage).
5. Label size shall be (L x W): 15 x 6 cm (6" x 2,5").
6. The label must include the following data elements:
 - The text "DO NOT remove label before final assembly at FLG"
 - The text "Serialized Item"
 - Part Name
 - Cage Code (enter FLG cage code: H1632)

 - Part No
 - Serial No
 - Criticality Class

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- Next higher level assy P/N (optional)
- Cage code (optional)
- Part No. (optional)

0901 ESTABLISH MANUFACTURING INSTRUCTIONS

The supplier shall establish detailed manufacturing instructions for the parts to be manufactured, prior to the start of the fabrication. These manufacturing instructions shall contain adequate inspections to ensure quality control during manufacturing and must reflect all applicable specifications listed on the drawings. The manufacturing instructions must be available for on-site assessment.

0902 APPROVAL OF MANUFACTURING INSTRUCTIONS

The supplier shall submit for approval the detailed manufacturing instructions, through the FLG Procurement department. Fabrication can only start after the manufacturing instructions have been approved in writing.

0904 APPROVAL OF TEST PROCEDURE

The supplier shall submit through the FLG Procurement department, their complete test procedure for the assembly and/or sub-assembly to be tested, per the requirements of the purchase order, drawing and/or specifications, for approval prior to the start of any test. The test can only start after the test procedure has been approved in writing.

0906 APPROVAL OF FIRST CASTING OR FORGING

Prior to definite production release for castings and forgings made with new or adjusted tools (patterns or die's) or made by a new supplier with existing tools, the supplier shall furnish three (3) castings or forgings from the trial series to FLG for review and approval on chemical, physical, dimensional and structural aspects referred to in the drawing and/or specification requirements. For a purely dimensional inspection, a plaster of plastic cast or pattern may be used, provided that the percentage of shrinkage is indicated. After consultation, acceptance inspection will take place on the premises of FLG or the supplier.

0907 CHANGES IN MANUFACTURING METHODS AND PROCESSES

The supplier shall notify the FLG Procurement department of any proposed changes in fabrication methods and processes which are to be incorporated into articles or approved specimen to be shipped against this purchase order. The supplier shall obtain FLG written approval before incorporating the changes.

0908 KEY CHARACTERISTICS

For all dimensions, stated on the drawing, stated as a Key Characteristic, or separately appointed by FLG, the supplier shall have a process to control and monitor Cpk values per AS9103. Furthermore the supplier shall have a PFMEA for every part with a Key Characteristic. The method used to prepare and maintain the PFMEA shall follow the industry guidelines SAE J1739 for Advanced Product Quality Planning (APQP) (i.e. Failure Modes Effect Analysis (FMEA)), Control Plans, and comply with the requirements of AS9100 (current revision).

To ensure proper statistical results the Cpk value shall be controlled and monitored from at least the 30 parts produced. The Cpk value shall be reported on every COC. Should the initial volume of parts produced be less than 30, the supplier shall liaise with the responsible FLG buyer to determine control method.

Cpk values less than 1.33 shall be addressed with an action plan. The action plan shall be submitted to FLG within 10 business days, containing all actions required to meet the >1,33 requirement. Any change to the action plan shall be re-submitted.

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Cpk values less than 1.00 shall be addressed by the supplier with a Corrective Action (CA) per DOC300. The CA shall be submitted to FLG within 10 business days, containing all actions required to meet the >1,33 requirement. Any change to the CA shall be re-submitted.
 The actual value of Cp and Cpk should be tracked from at least the last 30 parts produced.
 The actual Cp and Cpk values should be reported on every COC.

1001 INSPECTION BY SUPPLIER

The supplier shall perform a verifiable 100% inspection on all items to be supplied in accordance with the purchase order. Evidence in this matter shall be available for verification by the Quality department of FLG.

1002 FUNCTIONAL TESTING

The supplier shall notify the Quality department, through the FLG Procurement department, at least five (5) working days prior to the date of the actual functional testing of the item(s) covered by the purchase order, when these tests will be started. So that the FLG Quality department can attend the tests if desired.

1003 FLG SOURCE INSPECTION

Upon completion of the supplier's quality inspection, the supplier shall contact the FLG Procurement department to request source inspection of the parts and associated documents by FLG. The Procurement department will inform the supplier by return whether FLG source inspection will be performed or not. Notwithstanding this source inspection, all items are subject to final incoming inspection and acceptance or rejection by FLG, whereby the supplier remains fully responsible for the parts produced by him.

1004 TEST BARS FOR FORGINGS

The supplier shall furnish with each shipment of forgings two (2) test bars produced from the same charge of material and having the same percentage of reduction as the forgings supplied. The test bars shall be permanently identified with supplier's name or trademark, the material charge number and/or heat-treat lot number and clear alloy identification.

1005 TEST BARS FOR CASTINGS AND SPECTROGRAPHIC DISK

The supplier shall furnish with each shipment of castings two (2) test bars representative of each heat-treat lot and made from the same melt as the castings supplied. The test bars shall be permanently identified with supplier's name or trademark, melt and/or heat-treat lot numbers and clear alloy identification.

The supplier shall furnish with each shipment of castings one (1) spectrographic disc, which is representative of the entire charge or melt. The disc shall be permanently identified with supplier's name or trademark, melt and/or heat-treat lot numbers and clear alloy identification.

1101 CALIBRATION OF MEASURING EQUIPMENT

The supplier shall be responsible for the calibration of tools, measuring/gages and test equipment and for ensuring correctness and accuracy. The calibration system must comply with the applicable paragraphs of ISO-10012.

1102 INSPECTION EQUIPMENT ON LOAN

The supplier shall be responsible for keeping in good order any inspection equipment loaned to the supplier by FLG. On completion of the order, all inspection equipment shall immediately be returned to FLG.

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1201 VISIBILITY OF PERFORMED INSPECTION

The supplier shall give each individual part, supplied against this purchase order, an inspection stamp to confirm that the inspection operations have been performed. Unless otherwise indicated on the drawing or in the specification, the inspection stamp shall be placed on the part itself, on a label attached to it or on the individual packaging.

1301 NONCONFORMING MATERIAL (CONCESSION)

Supplies or services not conforming to the applicable drawing and/or specification requirements shall not be not be FLG, without prior approval authorisation. The supplier may request such authorisation by notifying the responsible FLG buyer. Follow the instructions per WI 8.3-1 Control of Nonconforming Product. FLG will review the noted discrepancy and will provide concession instructions to the supplier for the handling of the discrepant product. When instructions, after repair or direct, authorise the shipment of product to FLG, the supplier shall reference the concession authorization-ID and applicable lot/serial numbers on the shipping documents. Final material acceptance will depend upon the actual verification of the discrepancy and product approval at FLG.

1302 NONCONFORMING MATERIAL SCRAP MUTILATION

In case FLG has decided to definitely reject a product, the supplier has the opportunity to inspect the affected product. For the purpose of learning for the upcoming deliveries.

- A. After the definite decision by the Material Review Board (MRB), the MRB informs the Procurement department that the product is available for inspection by the supplier.
- B. FLG Procurement department notifies the supplier including the cause(s) for rejection.
- C. After the notification towards the supplier, FLG holds the part(s) for a maximum of thirty (30) days to allow the supplier to inspect the part.
- D. When the supplier has inspected the part or the thirty (30) days holding period has expired, the part will be mutilated and disposed in accordance with FLG Procurement instructions (return to supplier or scrap at FLG).

1501 MATERIAL AND PRODUCT CONTROL

The supplier shall use a material acceptance and release system guaranteeing that only the correct materials and products are used. Separate storage areas for raw materials and approved products shall be available. Products which do not meet the requirements (MRB-rejects) shall be stored in a bonded area. The materials and products being stored shall be identified and traceable to the applicable receiving inspection- or production documents.

1503 TREATMENT OF CASTINGS AND FORGINGS

Castings and forgings to be supplied to FLG, shall be pickled (aluminium only) or grit-blast cleaned by the supplier. If indicated, this should be done in accordance with the applicable casting-/forging drawing or specification.

1504 PACKAGING REQUIREMENTS, GENERAL

The supplier shall ensure that the supplied parts are packed using materials of a quality, size and weight which will provide adequate protection from damage, corrosion and/or contamination during handling and transport to point of delivery, listed in the purchase order.

1505 SINGLE PACKAGE

The supplier shall ensure that the items delivered against this purchase order are to be packed in vapour barrier package, one (1) unit per package, in accordance with SAE AMS2817.

Parts which are serialized and marking is done by Bag & Tag shall be packed in one (1) unit per bag.

1506 MULTIPLE PACKAGING (25 max.)

Items delivered against this purchase order, may be packed in packaging units containing up to twenty-five (25) items, in accordance with SAE AMS2817.

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1507 PRESERVATION

The supplier shall ensure that all unprotected surfaces of assemblies, subassemblies or components being delivered, shall be preserved in accordance with drawing and/or specification requirements. When the drawing has no requirements for untreated areas of the parts to be protected, the parts shall have suitable corrosion protection of water-repellent oil for thirty (30) days minimum.

1508 AGE CONTROL FOR ELASTOMER PARTS AND PARTS CONTAINING ELASTOMERS

The supplier shall ensure that items which have shelf life limitations shall have at least 5/6 of the shelf life remaining upon receipt at FLG. For items containing age sensitive elastomeric material reference is made to SAE AS1933 and/or SAE ARP5316. Packaging and labeling according to respective specifications.

1510 ITEMS WITH SHELF LIFE LIMITATIONS

The supplier shall ensure that items which have shelf life limitations shall have at least 5/6 of the shelf life remaining upon receipt at FLG. The date of manufacture and expiration date shall be appropriately marked on the items or packaging units.

1601 CERTIFICATION PURCHASE ORDER (COC)

The supplier shall provide with each shipment one (1) original certificate of conformity (COC) *¹ to confirm that the supplies or services conform to the order requirements including terms, conditions, drawings, specifications and other requirements incorporated by reference therein.

Certification shall contain the following:

- Name and address of manufacturing or processing location,
- FLG's order number, line number,
- Item part number, item revision number and item description,
- Manufacturer's lot, heat, batch, date code, and/or serial number (when applicable),
- Cure date, expiration date (when applicable),
- Quantity and unit of measurement,
- Concession authorization-ID and applicable lot/serial numbers (when applicable),
- Be signed and dated by an authorized official of the company.

The applicable material test results, process certifications, inspection/test records and other evidence of conformance to the applicable drawing and specifications shall be presented upon FLG's request.

Supplier shall perform inspection, as necessary, to determine the acceptability of all supplies or services.

*¹ Also called certificate of conformance or certificate of compliance.

1602 LIST OF PROCESSES AND OPERATIONS

The supplier shall ensure that each shipment is accompanied by one (1) certificate/information form for each assembly, sub-assembly or component. The certificate/information form shall state the following for each process or operation carried-out, in-house or sub-contracted: the name of the process, the applicable specification number, the name of the company which performed the process and, in the event of sub-contracting, the number of the certificate furnished by the sub supplier. The certificate/information form shall contain a statement that the supplier or his sub supplier has on file and available for verification, evidence of conformance to the applicable specifications. The certificate/information form must be signed by name and signature of an authorised quality representative of the supplier.

1603 SHOPTRAVELLERS

With the first shipment of products and in the event of modifications to the sequence of manufacturing instructions, the supplier shall furnish copies of the shop travellers involved to FLG. The shop traveller

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shall show the sequence of manufacturing operations, inspection acceptance, date of operation, name or registration number of the operator, quantity accepted and rejected products and if there have been any rejects, the serial number(s) and discrepancy report number should be indicated and filled-in for each applicable operation performed in the manufacturing process. These shop travellers shall be clearly traceable to the products supplied.

1604 INSPECTION REPORT

For each individual product to be delivered the supplier shall record all the product characteristics accomplished by him in an inspection (measuring) report and a copy shall accompany the products of each shipment.

1605 FIRST ARTICLE INSPECTION (FAI)

The supplier shall prepare, approve and release a partial (delta) or full FAI in accordance with AS9102 and instruction QM018. This instruction contains both the AS9102 requirements as the specific requirements of FLG.

1606 FUNCTIONAL TEST REPORTS

The supplier shall furnish with each shipment, functional test reports for all tests conducted in conformity with the drawing and/or specification and clearly traceable to the article submitted. Test reports shall reflect full and complete test parameters. These reports must contain the name and signature of the person responsible for the tests. The test reports shall be included with the products of each shipment.

1607 CERTIFICATE FOR NON-DESTRUCTIVE TESTING

The supplier shall ensure that all non-destructive testing processes (NDT.), such as penetrant, magnetic particle, radiographic, ultrasonic, eddy current and nital-etch, shall be performed by certified operators and in accordance with applicable specifications and standards. Level II is the minimum required level for NDT operators. Supplier shall furnish with each shipment one (1) copy of the certificate containing the name and signature of an authorised representative for all processes involved. The certificate shall also include the process(es) performed, the specification, the applicable purchase order number and the name of the facility that performed them. When parts are serialised, serial numbers or batch number must appear on the certificate.

1608 CERTIFICATE FOR SUB-CONTRACTED PROCESSES

The supplier shall furnish with each shipment one (1) copy of the certificate, containing the name and signature of an authorised representative of the company which performed the sub-contracted process or operation, for all processes or operations involved. The certificate shall include the processes or operations performed the specification to which they conform, the applicable purchase order number and the name of the facility that performed them. When parts are serialised, serial numbers or batch number must appear on the certificate. If plating processes have been sub-contracted and the heat treatment for stress-relieve required in the specification has been effected before the plating operation and the bake-operation to avoid hydrogen brittleness after the plating operation, the sub supplier shall list this on his certificate.

1609 FURNISHING OF TEMPERATURE/TIME DIAGRAM

With each shipment of parts, which have been subjected to a heat treatment- or a baking operation to avoid hydrogen brittleness, the supplier shall furnish a copy of the temperature/time diagram. Each processed part shall be traceable to the applicable temperature/time diagram and the diagram shall be signed by an authorised quality representative.

1610 CERTIFICATION OF HARDNESS TEST

The supplier shall furnish with the products a certificate or measuring report, signed by an authorised quality representative, stating the hardness values measured on the products after the heat treatment operation. If the treated products have an individual serial number, the certificate or measuring report

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shall state the measured hardness values for each serial number separately. If the place for hardness checks is not indicated on the drawing or accompanying instructions, it is left to the supplier's discretion. Hardness inspection after a heat treatment is always a 100% inspection of minimum three (3) hardness checks for each product.

1611 STATEMENT OF CONFORMITY FOR RAW MATERIAL(COC WITH THE ORDER)

Combined with quality requirement 1614.

1612 TEST REPORTS CHEMICAL + PHYSICAL(ROUTINE) TEST REPORTS

Combined with quality requirement 1614.

1613 TEST REPORTS CHEMICAL SPECIFIC TEST REPORTS

Combined with quality requirement 1614.

1614 TEST REPORTS CHEMICAL AND PHYSICAL INSPECTION CERTIFICATE

The supplier shall furnish with each shipment a document issued on the basis of inspection and test carried out in accordance with the specifications of the order (for example ISO10474), or official regulations and corresponding technical rules, with mention of test results based on specific inspection and testing. Test reports shall be clearly traceable to material batch or items delivered. The certificate must be signed by name and signature of the supplier's authorised representative independent of the manufacturing department. For aluminium indication of limit-values is allowed.

1616 CERTIFICATES OF SUBSUPPLIERS

Contrary to the terms of this agreement, the supplier shall be allowed to file all the certificates required without furnishing them with the products, with the exception of the certificate of conformity (COC. item 1601). During verification visits to the supplier by FLG Quality department, the certificates shall be made available for inspection.

2001 STATISTICAL (SAMPLING) INSPECTION

The supplier shall perform sampling inspections, only in accordance with spec. ISO-2859 or MIL-STD-105 or with sampling procedures which have been approved in writing by the FLG Quality department. Classification of characteristics (AQL-value) for products to be supplied against this purchase order, shall be furnished by the supplier through the FLG Procurement department for approval by the Quality department prior to use and must be based on guaranteeing zero-defect. Records of objective evidence of sampling inspection shall be maintained and shall always be subject to review by FLG Quality department.

3003 MATERIAL SAFETY DATA SHEET (MSDS)

A Material Safety Data Sheet (MSDS) is required with the first delivery according EC-guideline 93/112/EC. Each time the MSDS changes a new MSDS must be delivered. Send the MSDS to FLG Quality department.

4001 CERTIFIED TOOL LIST

All new, changed or repaired dies, models, jigs, fixtures, special cutting tools, gages and test equipment, shall be inspected to assure compliance with the terms of the purchase order, engineering drawing(s) and applicable specifications. The inspection results will be recorded on a tool inspection report in such manner that the complete status, configuration, and location may be readily ascertained. The manner of storage is chosen such that no deterioration of quality occurs and the identity designation is not lost during the storage period. A list of certified tools shall be maintained and submitted once a year to FLG Procurement department. The record shall provide information for each tool and include (aircraft, vehicle) model number, original made purchase order number, tool number and name, part number, date, all rework information, including change number, rework purchase order, and date of inspection and inspection result.

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4002 QUALITY ASSURANCE PLAN

The supplier shall submit to FLG within 3 month after acceptance of this order a quality assurance plan which contains the specific quality practices, resources and sequence of activities relevant to this particular product, service, contract or project. This plan is subject for approval by FLG.

5001 COMMUNICATION

In case of questions regarding (product) quality (MRB, deviations, waivers) the supplier can contact the FLG Quality department.

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