

1. Subject:

Initial sample test

2. Application:

This RON shall be used in the case of all

- new or changed bought-in parts (except standardized and catalogued parts)
- changes of suppliers and/or sub-suppliers
- changes of manufacturing process at supplier or sub-supplier

An initial sample test shall be carried out also in the case of minor changes if it is not expressly specified otherwise in the order (e.g. drawing modification, etc.).

Decisions regarding the review of changes will be made by BRP-Powertrain change management.

Here, only those features which have been changed, or are affected by the change, shall be inspected and documented.

Furthermore, the initial sample test conditions specified in this RON shall also be used within reason for:

- new or changed parts manufactured by BRP-Powertrain
- approval after changing manufacturing methods
- testing specimens within the scope of a "special release"
- first series of parts manufactured in serial production conditions

3. Introduction

The initial phase of new supplies must be effected smoothly, in the interest of economic efficiency. Product characteristics shall be agreed in the form of specifications and supply contracts.

Any deviation is a disturbance and thus increases costs.

2019036	Sampling scope adapted acc. RON303				RON436_en_2019036.doc
2017395	Changes in § 5.1 and 6.6				RON436_en_2017395.doc
2014499	Point 4.3 wording adapted regarding the VA 12-014,: Point 8.1: "current" and "valid" deleted				RON436_en_2014499.doc
20119631	Rotax into BRP-Powertrain, QP into SQ, Item 4.4,6.6, accomodation FB12-012-1 , FB MM 012-1				RON436_en_2011631.doc
2004931	div. corr. Item 4.4, 8.3, 4.4 new data sheet FB MM 012-1				RON436_en_2004931.doc
2003289	div. corr. Item 4.4, 5.1, 5.2; 6.6 new data sheet FB 12-012-O				RON436_en_2003289.doc
2000267	Par. 2, par. 4.4, par. 5.1				RON436_200267.doc
2004040607	VDA reports were changed				RON 436.DOC
2003012302	Modifications according to marking				RON 436 .DOC
9533	Conversion to RON				RON 436 / 9533
3	7.4 new				RLV03602.DOC
2	"Replaces" new, items marked II on left are new				
Issue	Description of change				Document
Revised 2015-05-29	Checked on 2015-07-09	Checked on 2015-07-14	Checked on 2015-07-09	Approved on 2015-08-14	Document-No. RON436_en_2019036.docx
by SQ/NC	by EK/MIU	by VT /Gu	by SQ/AJ	by DE/TH	Replaces:
					Edition 2017395



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Proof should be supplied for the initial samples that the supplier is able to meet the specifications required by BRP-Powertrain in serial production conditions. In addition, initial samples produced as stipulated under 4.1. lead in due course to the conclusion which is important for BRP-Powertrain, i.e. whether the series supplies are acceptable.

4. Definition of terms

4.1. Initial samples

Initial samples are parts, units or other fabrication materials produced entirely with series operations under series conditions. An initial sample test report (see point 4.4) is to be supplied with the samples. Any deviations are to be highlighted after clarification with the relevant Quality Control department at BRP-Powertrain.

4.2. Other samples

All other samples which do not satisfy the conditions under 4.1. require additional initial samples. Such samples may be e.g. hand samples, special samples or preliminary samples and must be declared accordingly. The relevant dimensional and material report form can be ordered from BRP-Powertrain.

4.3. Initial sample test

In the case of serial parts manufactured for the first time or changed, features are checked and documented in measurement reports. The completed documents are stored in the SAP ISR note.

These are dimensional, material and / or functional tests of initial samples with regard to all specifications agreed between BRP-Powertrain and the supplier.

4.4. Initial sample test reports

Compilation of all the given set data and actual data. Initial sample test reports must be submitted in German or English.

The comprehensive initial sample test report (see also point 8) consists of:

- 2-D / 3-D dimensional report with all target and actual measurements,
- 3-D digitalization (measurement of non-dimensioned casting-geometry): for external geometry => measurement with optical detection systems (detection systems based on fringe projection, laser scanner); for internal geometry => measurement with X-ray computer tomography (2D-CT)
In case the required digitalization cannot be performed, BRP-Powertrain must be consulted.
- Material report and heat treatment report with all material target and actual values



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- Functional report with all functional targets and actual values (if specified)
- Manufacturing plan: process description of the manufacturing process used for the initial sample production and the subsequent serial production
- Control plan: presentation of the control plan to be used for the initial sample production and/or the subsequent serial production. Additional tests based on this control plan are possible at any time without the permission of BRP-Powertrain. A reduction in the scope of the test must be agreed upon with the responsible member of the Q-department before any changes are made
- If tools and devices paid by BRP-Powertrain are used, the up-to-date drawings and photographs of the tools/devices must be included with the initial sample documentation

All drawings that are needed for the unequivocal specification of the relevant part.

- Completed and signed "Data sheet for drawings requirements for initial sampling" (FB MM 012-1)
- **For existing KC-features a series of measurements including SPC-analysis is required (see RON303)**
- **P-FMEA if the material has a quality label "3" (see drawing / RON303)**

Any additional requirements will be defined in the ISR-portal by the responsible NPD-SQE.

4.5. Series resources, devices and series conditions

This refers to resources, devices and production conditions which match in all aspects those of subsequent series regarding dimensional, material and functional characteristics.

4.6. Specifications

All directives which are required to describe parts or units thoroughly in terms of dimensions, material and function.

Such directives may be represented in the form of e.g. drawings, RTRDs, 3-D data modelling, technical delivery conditions, standards, RON's samples, models and the like.

5. Requesting initial samples

Initial samples plus accompanying documentation must be requested by BRP-Powertrain with an order and a deadline (initial sample order).

5.1. Initial samples are, as a rule, required:

- for parts or units which are new to the supplier or BRB-Powertrain or if the agreed specifications have been altered,
- In the case of changes to production processes, production conditions, new production facilities or if production is interrupted for a longer period (24 months).

Only after consultation with the responsible SQ-expert can the initial sample test



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be dispensed with – parts with usage in aircraft engines have to be sampled without exception.

The scope of such initial samplings has to be adjusted preliminary together with the responsible SQ-expert at BRP-Powertrain.

- For parts of batch units whose first supply is subject to initial sampling according to the above regulations. Those parts which are subsequently supplied in small lots of the same batch over a longer period of time are no longer subject to initial sampling.
- for all raw parts (also for sampling parts that are ready to install (EBFZ))

5.2. Supplier's obligation to provide BRP-Powertrain with information **before** delivery:

If there is an intention to change the manufacturing process, permission must be obtained in writing from the Quality Assurance department at BRP-Powertrain.

The point in time that the change be introduced must also be discussed between Purchasing and Dispo at BRP-Powertrain, and the supplier, in order to ensure that parts can be supplied in the time during initial sampling.

After the change in the process has been agreed, check with Quality Control at BRB-Powertrain to find out which documentation is required (e.g. scope of documented sampling, process description, process suitability certificate, ...).

Even if no additional documentation is requested by BRP-Powertrain, make sure Quality Control at BRP-Powertrain are informed about the new serial delivery prior to the first consignment being delivered. It is also essential that the first consignment of the new serial delivery is kept separate, and is clearly labelled.

Initial samples may be requested, following consultation.

If you identify any deviations from the serial production process and/or deviations on the products, during your first sampling inspection, then **first** you have to get a delivery permission from our quality department before you can ship the samples to BRP-Powertrain. This permission has to be requested in written form.

6. Initial sample test carried out by supplier

6.1. Responsibility

The department accountable for quality at the supplier's works is responsible for carrying out all initial sample tests, plus checking all the documentation/parts lists/drawings etc.

6.2. Test criteria

The test criteria are the specifications agreed between BRP-Powertrain and the supplier for the initial sample test.

6.3. Test equipment and methods



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The supplier must employ test equipment which enable them to check the consistency of parts and units fabricated in-house or out-sourced with the given specifications.

Should the tests require special testing equipment which the supplier does not have, another reliable testing body shall be designated.

The supplier is responsible in all situations (e.g. for 3-D digitalization).

Uniform testing techniques shall be clarified between supplier and BRP-Powertrain where necessary.

Agreed function tests carried out at the supplier's works must be carried out using parts manufactured to exactly the same specifications as those presented for sampling.

6.4. Compiling the initial sample test report

Tests are to be carried out at the supplier's premises according to the agreed specification. An appropriate initial sample test report shall be drawn up in line with item 4.4. for all initial samples. All characteristics shall be itemized individually with target and actual values.

The form provided at the time of the order (or the supplier's own, equivalent form) is to be used for the initial sample test (see item 8.1).

In addition, the supplier must provide a drawing which numbers all features (see supplement).

For parts produced with multiple segment tools or dies, at least 1 part of each cluster must be tested. During initial sampling, the part selected from each cluster is to be clearly identified, and documented in full.

Unless otherwise agreed, it must be possible to associate the actual values of each feature with the samples using unique item numbering and a coordinates system.

Actual values outside the permissible range must be clearly labelled (including copies).

Completed initial sample test reports as per point 4.4 must be supplied together with the initial samples to enable BRP-Powertrain to carry out further processing.

All initial sample test reports must be signed by the person responsible for quality at the supplier's works.

6.5. Marking initial samples

Initial samples must be marked clearly with tags, labels or stickers and be indicated on the delivery note to rule out any confusion during shipping and at BRP-Powertrain.

The means of identification shall contain the same information as the initial sample test reports.

Initial samples and initial sample test reports are to be presented to the department responsible for quality at BRP-Powertrain.

6.6. If the initial sample report is being used for parts which have been revised, only the features which have been changed, or affected by the change, shall be measured and documented.



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The scope of initial sampling for suppliers which are not connected with the initial sampling portal is described below point 4.4 (full sampling scope). Suppliers, which are connected with the initial sampling portal, refer the scope directly from this portal.

7. Initial sample test carried out by BRP-Powertrain

7.1. BRP-Powertrain checks the initial sample documentation for completeness and conformity with the specifications (drawings, delivery specifications, ...), as it thinks fit.

Features may be checked again, and indicated accordingly in the column provided in the initial sample test report.

The condition is that all requirements have been fulfilled by the supplier and that the initial samples comply with the specifications.

The parts will be returned to the supplier if sampling cannot be carried out because the parts are damaged due to violation of the conditions specified in RON 435 (Packaging and corrosion protection). The supplier is to bear the costs incurred for re-sampling the initial samples.

If during the production clearance process it is established that documentation is incomplete, or non-approved deviations are apparent, the supplier is to bear the costs of re-sampling the initial samples.

7.2. Based on the initial sample test reports and the tests performed in-house, one of the following three decisions shall be made:

a) Approved

"Approved" means that the part or material complies in full with the specifications and requirements in the initial sample report. The supplier is now permitted to deliver the production quantities of the relevant part according to the demand made by the Dispo and Purchasing departments at BRP-Powertrain.

b) Approved on concession

"Approved on concession" means the supplier is permitted to deliver the parts and materials providing that the deviations established during initial sampling have been rectified.

Proof of this is to be provided in the form of a re-sampling, including a test report on the relevant features.

If deviations from the specification are detected during this test, then permission is to be granted by BRP-Powertrain prior to a delivery being made.

c) Rejected, new samples required

"Rejected" means that new initial samples including new initial sample test reports have to be submitted. The supplier shall be informed of the decision immediately and sent a copy of the initial sample test report.



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7.3. Approval from BRP-Powertrain of the initial samples does not relieve the supplier of their responsibility for ensuring product quality.

This approval is of a purely technical nature and does not represent a supply order.

8. Drawing up reports and forms

8.1. Forms

An initial sample test report is to be drawn up according to international standards such as VDA volume 2 or QS-9000 PPAP in the 3rd level.

The initial sample test report consists of two different sections: a cover sheet and any number of sheets for test results.

The cover sheet contains all the relevant data of the initial sample, the necessary certification and the summaries of the results of the data obtained and the Approved/Rejected decisions.

In order to correspond with the cover sheet, the initial sample test report results sheet contains the decisive data of the initial sample and the detailed test results of all the features. These are divided into measurement records, material report and functional report. The same form may be used for the three different tests.

8.2. Issuing office

The initial sample test report is to be issued by the supplier and signed by the office responsible.

8.3. Procedure

The supplier adds the completed initial sample test report cover sheet to the completed test results sheets. The header of the test results sheet must be completely filled in to identically match the contents of the cover sheet.

The supplier then sends the completed initial sample test report together with the initial sample parts to BRP- Powertrain. The initial sample parts and packaging are clearly labeled.

BRP-Powertrain (the purchaser) inspects the initial sample/initial sample report as they see fit, records the results on the assessment page, and returns the initial sample test report plus decision to the supplier.



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9. Process Flow Diagram

THE APPROVAL PROCESS		Responsible for process (R) Decision (D) Assisted by (A) Information (I)				Remarks: I: Input O: Output
PROCESS SEQUENCE		R	D	A	I	
<pre>graph TD START([START]) --> Order[Order initial sample incl. accompanying document] Order --> Fabricate[Initial samples fabricated under serial conditions with utilities and test equipment] Fabricate --> Test1[Test dimensions, materials and function of initial sample] Test1 --> Report1[Compile test report, material report and function report] Report1 --> Check1{Are there enough initial samples} Check1 -- NO --> Fabricate Check1 -- YES --> Report2[Compile test report, material report and function report] Report2 --> Check2{Are there enough initial samples} Check2 -- NO --> Fabricate Check2 -- YES --> Report3[Compile test report, material report and function report] Report3 --> Check3{Are there enough initial samples} Check3 -- NO --> Fabricate Check3 -- YES --> Present[Present initial sample with initial sample test report to ROTAX] Present --> Test2[Test dimensions by ROTAX] Test2 --> Check4{Follow-up samples required as per instructions} Check4 -- NO --> Present Check4 -- YES --> Deviations{Deviations (Approve or concession)} Deviations --> Check5{Check with ROTAX prior to delivery} Check5 --> Present Present --> Report4[ROTAX use supplier's initial sample test report to inform supplier of test results] Report4 --> Approved{Do initial samples meet agreed specifications} Approved -- NO (Rejected) --> Report4 Approved -- YES (Approved) --> ROTAX[ROTAX use initial sample test report from supplier to grant technical approval] ROTAX --> Supply[ROTAX issue supply order] Supply --> StartProduction[Supplier starts serial production as per supply order] StartProduction --> END([END])</pre>						



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10. Attachments

VDA Initial Sample Test Report (submission report)

VDA Initial Sample Test Report (test results)

FB MM 012-1 Data sheet for drawings requirements for initial sampling



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Sender

- Cover Sheet -

First Sample Test Report VDA

- First sampling
- Re-sampling
- New part
- Product modification
- Production transfer
- Change in the production procedures
- Long production pause
- New subcontractor
- Product with DwSpA
- Production/Inspection and Test Plan prepared
- FMEA carried out

Test Report other samples

Appendices

<input type="checkbox"/> 01 Functional Test	<input type="checkbox"/> 07 Evidence for Inspection and Test Equipment Capability	<input type="checkbox"/> 13 Appearance
<input type="checkbox"/> 02 Dimensional check	<input type="checkbox"/> 08 Inspection and Test Equipment List	<input type="checkbox"/> 14 Certificate
<input type="checkbox"/> 03 Material testing	<input type="checkbox"/> 09 EU-Data Safety Sheet	<input type="checkbox"/> 15 Design Approval
<input type="checkbox"/> 04 Reliability Test	<input type="checkbox"/> 10 Haptics	<input type="checkbox"/> 16 Constituents of Purchased parts
<input type="checkbox"/> 05 Process Capability Evidence	<input type="checkbox"/> 11 Acoustics	<input type="checkbox"/> 17 Other
<input type="checkbox"/> 06 Process Flow Chart	<input type="checkbox"/> 12 Odors	

Identification Number, Supplier:		Identification Number, Customer:	
Test Report No.:	Revision:	Test Report No.:	Revision:
Subject Number:		Subject Number:	
Drawing Number:		Drawing Number:	
Status/Date:		Status/Date:	
Revision Number:		Revision Number:	
Designation:		Designation:	
Order Call-off No./Date:			
Delivery Note No./Date:		Incoming Goods No./Date:	
Quantity delivered:		Delivery Destination:	
Charge Number:			
Sample Weight :			

Supplier Confirmation :

It is hereby confirmed, that the sampling has been carried out according to VDA Volume 2 Chapter 4.

Name: Department: Telephone/ Fax/ E-Mail:	Comment:
Date	Signature

Customer Decision	Overall	According to Appendix															
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Approved	<input type="checkbox"/>																
Conditionally approved	<input type="checkbox"/>																
Rejected, re-sampling necessary	<input type="checkbox"/>																
Deviation Concession No.:																	
When returning, Delivery Note No./Date:																	
Name:																	
Department:																	
Telephone/ Fax/ E-Mail:																	
Date	Signature																
Distribution:	1	2	3	4	5	6	7	8	9	10	11	12	13	14			



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- Test Results -

Attachments:

- 01 Functional Test
- 02 Dimensional check
- 03 Material testing
- 04 Reliability Test
- 05 Process Capability Evidence
- 06 Process Flow Chart
- 07 Evidence for Inspection and Test Equipment Capability
- 08 Inspection and Test Equipment List
- 09 EU-Data Safety Sheet
- 10 Haptics
- 11 Acoustics
- 12 Odors
- 13 Appearance
- 14 Certificate
- 15 Design Approval
- 16 Constituents of Purchased parts
- 17 Other

First Sample Test Report VDA

- First sampling
- Re-sampling
- New part
- Product modification
- Production transfer
- Change in the production procedures
- Long production pause
- New subcontractor
- Product with DwSpA
- Production/Inspection and Test Plan prepared
- FMEA carried out
- Test Report other samples

Identification Number, Supplier:		Identification Number, Customer:		
Test Report No.:	Revision:	Test Report No.:	Revision:	
Subject/Drawing/Revision No./Staus/Date:		Subject/Drawing/Revision No./Staus/Date:		
Designation:		Designation:		
Ref.-No.	Requirements	Actual – Value Supplier	Evaluation	
			Satisfactory	Not satisfactory
Supplier Confirmation:		Customer Decision:		
Comment:		Approved	<input type="checkbox"/>	
		Conditionally approved	<input type="checkbox"/>	
		Rejected, re-sampling necessary	<input type="checkbox"/>	
Name: Department: Telephone/ Fax/ E-Mail:		Name: Department: Telephone/ Fax/ E-Mail:		
Date	Signature	Date	Signature	



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FB MM 012-1 Data sheet for drawings requirements for initial sampling

 Datenblatt für Zeichnungsanforderungen bei Erstmusterteilen Data sheet for drawings requirements for initial sampling				FB MM 012-1 /C
PRT-Teilenummer PRT - Part number	Bezeichnung Identification	Rev. Stand Rev. Level	Bestellnummer Purchase order number	
<p>Dieses Datenblatt dient dazu, die Vorgaben, die auf der Zeichnung angegebenen sind, zu bestätigen (z.B.: RON, technische Spezifikationen,... → in der jeweils gültigen Version) und diese in Folge vollständig einzuhalten.</p> <p>This data sheet is used to confirm the requirements on the drawing (e.g.: RON, technical specification,... → in the current valid version) and to full fill them for the initial sampling</p> <p><input type="checkbox"/> Liste der auf der Zeichnung geforderten RON'S - list of the RON's Required on drawing</p> <p>Welche: _____ Which: _____</p> <p><input type="checkbox"/> Technische Spezifikationen (RTRD,PED,DD,...) - technical Specifications (RTRD,PED,DD,...)</p> <p>Welche: _____ Which: _____</p> <p><input type="checkbox"/> Liste anderer Normen / Spezifikationen der Zeichnung - list of other Norms / Specifications on the drawing</p> <p>Welche: _____ Which: _____</p> <p><input type="checkbox"/> Gibt es Anforderungen die nicht eingehalten wurden - are there requirements which are not full filled</p> <p>Welche: _____ Which: _____</p> <p>Bemerkungen: Remarks: _____</p>				

Bitte um Bestätigung, dass die oben angeführten Angaben korrekt sind.
Please confirm that the information above are correct.

Unterschrift:
Signature: _____



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Datenblatt für Zeichnungsanforderungen bei Erstmusterteilen Data sheet for drawings requirements for initial sampling

FB MM 012-1 /C

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PRT-Teilenummer

PBT: Page number:

Bezeichnung

DETERMINATION

Rev. Stand

Rev. 5.0

Bestellnummer

Purchase order number:

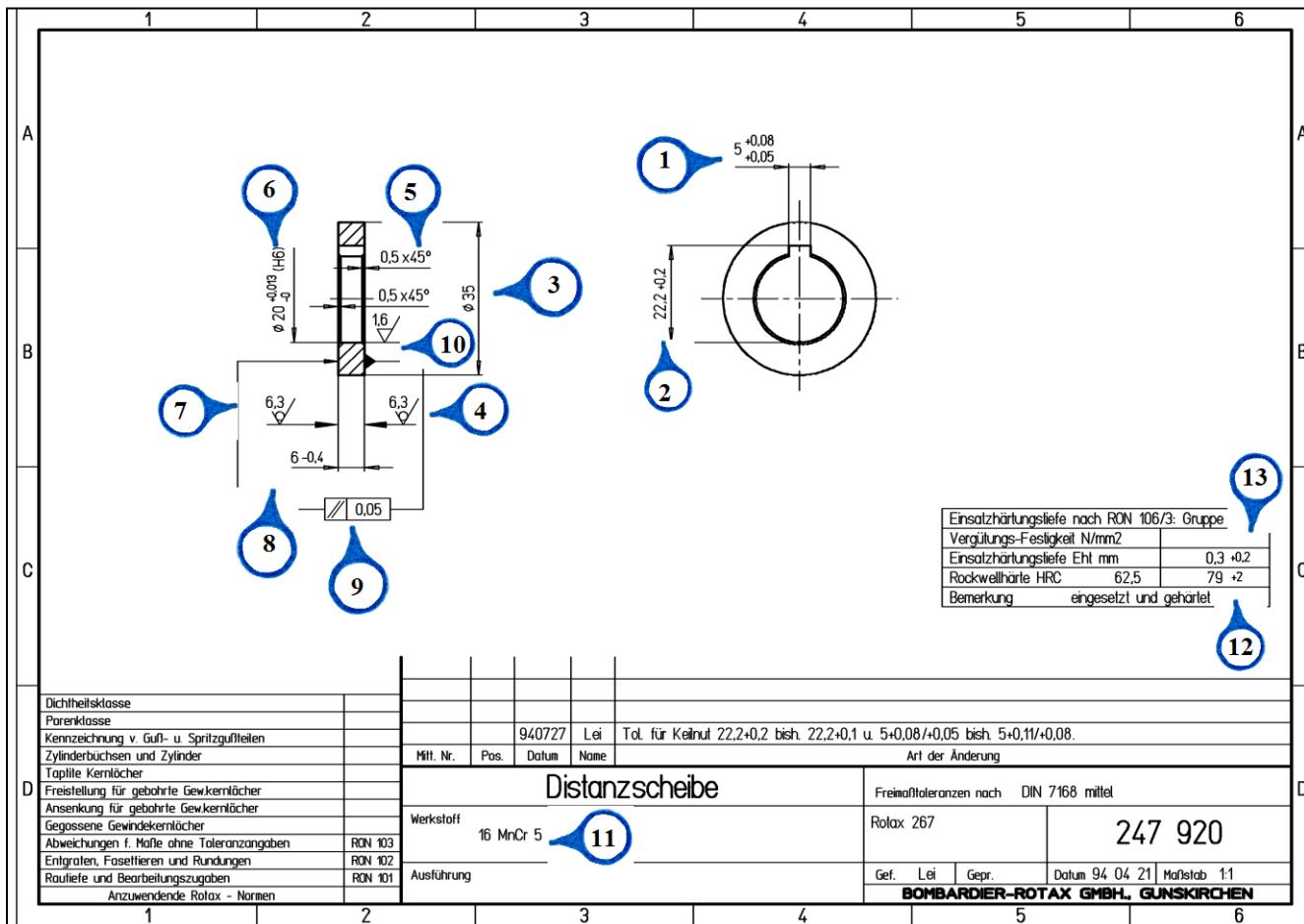
Abweichung zu (z.B. RON303 Pkt4.1) Begründung (reason)
Deviation to (e.g. RON303 94.1)

Abweichung zu (z.B.: RON303 Pkt4.1) Begründung (reason)
Deviation to (e.g.: RON303 94.1)



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