Quality Assurance of Development Samples

Regulations for Suppliers

1. Area of application and goal

This specification applies in conjunction with the design drawing or the order documents for A and B sample components used with test engines and prototypes during engine development.

This supplier specification serves to ensure the quality of development samples and the compliance with supplier requirements.

2. Other applicable documents

VDA Volume 2	Ensuring the Quality of Deliveries
H 0758-2	Provisions for Samples and the Sampling Process
H 0759	Categorisation of Features According to Function

3. Terms/ Definition

Development Sample: A and B samples in accordance with H 0758-2 which are required, in particular, for functional and endurance tests of prototype and test engines

Measurement protocol: Documentation of the tested features of each component

Test certificate: summarising overview and assessment of the measurement protocol

Clear identification number: unequivocally traceable labelling of a component for the purpose of assigning the corresponding measurement protocol

4. Requirements

1. Every order of a prototype component usually requires that three parts have all of their features completely checked.
2. For certain component orders it is also necessary to test certain specially defined features of all components to be delivered (e.g. in accordance with H 0759).
3. Each order contains an item for this purpose, both for “testing in all features 3x” and for “testing certain features of all parts”.
4. All tested components must be labelled with an ID number which is clearly identifiable, (e.g. serial number and date), has a font size of min. 4 mm and is easy to read.
5. It must be possible to unambiguously assign the ID numbers to the measurement protocols.
6. The labelling should be on the component itself. If this is not possible due to spacial constraints, the labelling can be exceptionally on the corresponding outer packaging.
7. The labelling must be legible at least until the component is installed.
8. The labelling may not impair the functioning of the component.
9. The allocation must be clear enough that the component cannot get mixed up with any subsequent deliveries.
10. The test certificate and measurement protocol should be sent **in electronic form only** to the customer, stating the corresponding order number.
    Email address: **PT-Teilequalitaet.de@deutz.com**
11. The test certificate and measurement protocol are not accepted in paper form and not considered delivered.
12. Components with the test certificate result ‘OK’ may also be sent along with the electronic transmission of the test certificates. (→ 'all features in tolerance' ticked)
13. In the case of any deviations (i.e. marked ‘Not OK’), the test certificate must always be sent to the customer before the components are delivered. (→ 'following features out of tolerance' ticked)
14. Components with ‘Not OK’ test certificate results may not be sent off without confirmation from DEUTZ AG.
15. Further proceedings with ‘Not OK’ test certificate results should be clarified with DEUTZ AG prior to delivery.
    The following options are possible:
    a. Acceptance of the deviation (and supply approval)
    b. Rework by the supplier (supply approval after rework is complete)
    c. Rejection by the supplier (supply approval after rejection)
    d. Reproduction of the components by the supplier
    e. Rework by DEUTZ (supply approval) - these costs are invoiced to the supplier

5. Applying the clearly identifiable ID Number

The ID number labelling can be applied to the component itself or, exceptionally, to the outer packaging by machine or manually (hand-written) (cf. 4.6.). The labelling should not inhibit the functioning of the component.

Labelling options:

- Engraving pen
- Permanent marker
- Adhesive label
- Laser etc.

Delivery specification LV 0161 0306

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Annex: Test certificate form

Order no.:		**Manufacturer:**
Name:	**Part no.:**	**Business partner no.:**
Sum of features of all parts OK:[1]		**Sum of features of all parts n**
Sum of all measured features per part:		**Measured parts:**[2]
All features within tolerance		**Following features outside of tolerance** ☐

Measurement & Test Results of Features

ominal ±toleran	**Actual**	**Deviation**	**Designation of dimension, position on drawin**	**Supplier's comment**

Other deviations e.g. component label, material etc.

Supplier

Name	Email	Tel. no.	Date	Signature

This section shall be filled out by DEUTZ.

DEUTZ Prototype Manufacture

Name	Email	Tel. no.:	Date	Signature
	PT-Teilequalitaet.de@deutz.com			

DEUTZ Construction

Name	Email	Tel. no.:	Date	Signature

DEUTZ Construction

☐ **Deliver goods with identified deviation** ☐ **Rework at the supplier** ☐ **Rework at DEUTZ, deliver goods**