



## CHARACTERISTICS FOR STEEL WHEELS OF ROAD VEHICLES

# E S 3.09

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*CARACTERISTIQUES POUR ROUES EN ACIER DES VEHICULES*  
 FUNKTIONSMERKMALE FÜR STAHLRÄDER AN STRASSENFAHRZEUGEN

### 1 - SCOPE

Latest Safety Regulations on product and producer liability given by law do ask for control of adherence by authorities and are forcing Vehicle Manufacturers to always be in a position to prove any action taken regarding quality control.

Such action requires most accurate and complete documentation of all processing, measuring and controlling data revealing from the complete mode of production of all of those parts which are marked with obligatory documentation. The producer has to be ready to present such data at any time.

Such provision has to be adhered to by the producer himself as well as by sub-suppliers.

### 2 - DEFINITION

Characteristics obligatory to documentation are those, which have to be noted for presentation to legal authorities and they are therefore also subject to product liability.

If not asked for by law or by the contractor, such characteristics are decided upon between the producer and the purchaser.

Such characteristics have to be part of the technical specification and they have to be marked as such clearly and easily to be checked.

### 3 - MODE OF PROCEEDING

Characteristics which are obligatory to documentation have to be marked on any technical papers and specifications that are used for processing and manufacturing of parts.

The above mentioned papers and specifications include:

Drawings, test sheets, testing equipment sheets, audit sheets, work sheets, adjustment sheets, machine data sheets as well as parametric control of manufacture.

Any report made on checks and inspections which was performed in compliance with the before mentioned provisions for characteristics subject to documentation must be registered as such.

This provision includes also authorised deviations.

Main changes compared to the last issue:

**4 - LIST OF CHARACTERISTICS**

1. Material of disc - steel or cast iron certificate
2. Material of rim - steel or cast iron certificate
3. Circumferences of tyre bead seats
4. Circumference of rim hump or flat hump (only for car wheels)
5. Valve hole diameter
6. Stud hole position and pitch circle diameter
7. Thickness of disc and rim
8. Welded connection disc / rim (according to the specification of the vehicle manufacturer)
9. Inset or offset
10. Fatigue resistance - tested according to the specifications of the vehicle manufacturer.

The observance of the characteristics has to be proofed in the product- and process- documentation.

If no directions are given for final inspections, the frequency of inspections must be chosen so that the production process runs within specified tolerances.

**5 - SET TIME FOR STORAGE OF FILES**

Files existing on information obligatory to documentation have to be stored for at least 10 years or more, depending on the customer.

In order to be in a position to prove documentation to legal authorities during lifetime of parts it is recommended to determine suitable ways to save the respective data.

**6 - LITERATURE**

For additional information reference could be made to the existing guidelines, for instance "Rules and Regulations covering parts obligatory to documentation by car manufacturers and their sub-suppliers", issued by the Association of German Manufacturers of Automobiles (VDA), or the equivalent quality EN or ISO standards.