

Regulation on Establishing Technical Factors Regarding Field Claims

1. Policy on establishing Technical Factors for field claims

To reduce the effort of analyzing all field claim parts from the OEMs, the allocation of the problem origin and the accompanying cost share born by MAHLE Behr Industry is based on the findings of a sample of the defective parts. This same sample establishes the allocation of the problem origin as well as the basis for cost-sharing between MAHLE Behr Industry and the supplier.

The supplier's share (Technical Factor) is the result of an analysis performed by MAHLE Behr Industry and the supplier and can have a value anywhere between 0 and 1. As a rule, the Technical Factor is determined for single part numbers; however, it is also possible to set vehicle-specific or product group-related Technical Factors (involving several part numbers). Additionally, Quality Assurance and the respective supplier may also agree to adopt Technical Factors from other, technically comparable products based on a comparable defect pattern.

Quality Assurance at the MAHLE Behr Industry plant where the parts are installed is responsible for establishing the Technical Factor.

2. Identifying Technical Factors, handling, and supplier recovery

Identifying the Technical Factor is based on the defective part in question (part number). Agreement, analyses and recovery ensue with the supplier of the defective part in question.

If no other Technical Factors have been agreed upon, the Technical Factor is set to 1 as a rule for new component launches or production relocations.

Agreed Technical Factors remain valid until MAHLE Behr Industry and the supplier agree on a new Technical Factor.

3. Representative sample to determine Technical Factors

After receiving the defective parts from the customer or OEM in conjunction with an analysis request, MAHLE Behr Industry will submit a representative sample to the supplier with an analysis request. Each sample is submitted to the supplier with an accompanying inspection report (defective material note).

The supplier will assess the defective parts and communicate the results of that analysis in writing in a MAHLE Behr Industry-approved form. If necessary, MAHLE Behr Industry will conduct its own inspection. Should the supplier fail to provide MAHLE Behr Industry with analysis results within three weeks after the defective parts have been made available, the supplier acknowledges that it is responsible for the defects found in the defective parts. Defective parts that are not acknowledged by the supplier must be returned to MAHLE Behr Industry. Should the supplier fail to return the unacknowledged defective parts to MAHLE Behr Industry, the supplier acknowledges that it is responsible for the defects.

Analyses that will destroy the part must first be approved by Quality Assurance at the MAHLE Behr Industry plant where the parts are installed.

The number of damages and/or failures caused by the supplier is documented by MAHLE Behr Industry in the inspection report (defective material note).

The Technical Factor is calculated from the individual inspection reports.

Technical Factors are normally calculated over a longer period of time, containing one or several individual inspection reports to the supplier. This collection of individual inspection reports within this period of time is then used to identify the number of assessed failures and/or damages as well as the failures and/or damages caused by the supplier.

The scope of the sample used to calculate the Technical Factor contains all of the claimed parts made available by MAHLE Behr Industry that failed within the warranty period set jointly by MAHLE Behr Industry and the supplier.

Defective parts that failed outside of the warranty period set jointly by MAHLE Behr Industry and the supplier are not included when calculating the Technical Factor. Nevertheless, the supplier is responsible for providing a findings report on these defective parts.

As a rule, Technical Factors are established using a reference market determined by the OEM.

The size of the sample usually covers 10% of the defective parts which emerged from the entire market. This percentage can be exceeded or fallen short of depending on the OEM and its reference market(s). MAHLE Behr Industry makes effort to provide the supplier with a representative sample that allows the results to be transferred to the other markets.

4. Establishing Technical Factors, recovery

MAHLE Behr Industry and the supplier agree on the Technical Factor (TF) based on the defective parts contained in the sample. This TF is calculated from the number of failures and/or damages found in the sample, which were caused by the supplier (material, manufacturing, design, or concept defects, etc.), related to the scope of the entire sample.

$$TF = \frac{\text{Failures and/or damages found in the sample that were caused by the supplier}}{\text{Scope of sample (number of assessed parts)}}$$

The Technical Factor is used to identify the costs (volume of recovery) to cover all failures and/or damages which surfaced in the OEM's entire market.

$$\text{Volume of recovery} = TF \times \text{costs in the entire market}$$

5. Documenting Technical Factors

The Technical Factor is documented on the form "Fixing Technical Factor".
(BMS form 01005974)