

MAHLE Failure Catalogue

Version 1.0



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List of Abbreviations

ASN	Advance Shipping Notice
KLT	Small Load Carrier (SLC)
GLT	Big Load Carrier (BLC)
Delivery date	day material is delivered to MAHLE plant
EDI	Electronic Data Interchange
ERP	Enterprise Resources Planning
Fig.	Figure
GR	Goods Receipt
GTL	Global Transport Label (regulated by VDA 4994)
KLT	Kleinladungsträger = Small Load Carrier (SLC)
Pick up date	Day material is picked from supplier's shipping docks
QM	Quality Management
SAP S/4 HANA (P4M)	New ERP system that will replace R/3
SCC	Supply Chain Collaboration
SL	Notification – Supplier Logistics Quality Notification
Transmission date	Day ASN is sent to MAHLE
VDA	Verband der Automobilindustrie (German Association of the Automotive Industry)

Document History

[illegible]

1. Introduction

All specifications and information from the Failure Catalogue are applicable, and the guidelines provided here are additional to the Global Logistic Guideline.

All requirements are strictly enforced, and non-compliance may result in debit charges for the actual costs/efforts incurred, along with administrative costs.

MAHLE requires suppliers to deliver correct quantities on time according to schedule agreements and global standards for the automotive industry (Advanced Shipping Notification (ASN), Global Transport Label (GTL), EDI connection etc.) – all detailed requirements are listed in the MAHLE Global Logistics Guideline and apply to all MAHLE locations.

2. Logistical Complaints

2.1 Table of Errors

The table below lists the average time required to address each logistics failure. Each position represents a deviation from MAHLE processes and requires additional effort in inbound logistics.

MAHLE reserves the right to debit labor costs for additional efforts occurring at the affected MAHLE location. If additional costs are

incurred due to deviation from the process, the supplier must also cover these additional costs (e.g. costs of special transport).

For general claim processing, MAHLE reserves the right to charge an additional 60 minutes per complaint.

Error code	Failure	Failure components	Additional effort [min] at MAHLE
T010	Incorrect delivery documents	Incorrect labeling; preparation and printing of new labels	60
		EDI/ASN incorrect and shipment identification	150
T020	Incorrect labeling	Preparation and printing of new labels	60
T030	Wrong packing/not according to pack instruction; Packaging safety requirements not met	Incorrect labeling; preparation and printing of new labels	60
		Making manual changes to the ASN	120
T040	Damaged packing KLT	Repackaging process	120
T050	Damaged packaging GLT	Repackaging process	120
T060	Dirty packaging	Dirty packaging process	60
T070	Missing EDI/ASN	Manual creation of the ASN	120
		Labeling incorrect	60
		Incorrect delivery papers	60
T080	Incorrect EDI/ASN	Manual correction of the ASN	60
		Correcting labels	30
		Incorrect delivery papers	60

Error code	Failure	Failure components	Additional effort [min] at MAHLE
T090	Error during iDOC/ASN processing	Manual correction of the ASN	120
		Correcting labels	30
		Incorrect delivery papers	60
T100	Wrong packaging data in inbound delivery	Manual correction of the ASN	120
		Improving packaging instructions	60
T110	Quantity differences	Incorrect delivery papers	60
		Manual correction of the ASN	60
T120	Special freight	Cost of the special freight and organization	According to transport law
T130	Transport damage	Repackaging process	According to transport law
T140	Wrong delivery	Cost of handling the wrong delivery	According to transport law
T150	Wrong delivery location/address	EDI/ASN incorrect	According to transport law
		Incorrect delivery papers	According to transport law
T160	Bottleneck support	Bottleneck management	Cost of handling Bottleneck support
T170	Production stoppage	Production stoppage changeeffort	Production stoppage cost
T180	Delayed/early delivery	Delayed/early delivery management	120

The hourly rate is maintained by MAHLE and updated on a regular basis to reflect the costs incurred at the respective MAHLE plant.

Effective from 01.01.2025

3. Bottleneck Support

There are various triggers for a bottleneck complaint.

The following are the main reasons for when a bottleneck claim is initiated:

- 1) The supplier delays its information flow towards MAHLE and/or other relevant parties (e.g. its sub-suppliers). This could be, for example, a delay in passing on information about production problems. It is important to assess whether the time delay between the origin of the problem and its disclosure has a significant influence on the severity of the bottleneck situation. The supplier is obliged to inform of such a problem as quickly as the situation allows.
- 2) The supplier miscalculates in its planning, which leads to missing quantities of finished goods. This could be, for example, the lack of material procurement or incorrect capacity planning caused by negligence.
- 3) The supplier was negligent in the planning of its production and supply chain. This could include a lack of maintenance of its machines or the use of outdated systems with inadequate quality standards, which leads to machine breakage and thus has a negative impact on the supply chain.
- 4) The supplier requires a high level of support from MAHLE in overcoming the supply bottleneck, which goes beyond their area of responsibility. This could be, for example, time-consuming support with the supplier's logistics planning, which is not actually the responsibility of MAHLE, but is required to overcome the delivery bottleneck. Not supporting the supplier at this point could lead to much more serious damage for MAHLE.

The supplier must also inform MAHLE of any problems with sub-suppliers that could affect the security of supply of MAHLE. The supplier is responsible for the timely flow of information. In this case, whether the sub-supplier was selected by MAHLE or by the supplier itself is also relevant.

The supplier must completely fulfill the following requirements in order not to receive a complaint:

- 1) The supplier shall share all relevant information that may lead to a potential supply risk with MAHLE and/or other relevant parties (e.g. its sub-suppliers) as soon as possible. There is no penalty for the supplier for proactive communication of bad news.
- 2) The supplier shall share all relevant information related to the bottleneck with the responsible MAHLE contact person at the respective MAHLE plant. This includes the following points, which are also mentioned in the MAHLE Global Logistics Guideline:
 - Reason for the interruption
 - Affected parts (MAHLE part number) and MAHLE plants
 - Countermeasures with timeline and status
 - Max. production capacity, PLAN/ACTUAL demands, planned shifts (hours, shifts per day, working days per week)
 - Alternative solutions, e.g. alternative production lanes, overtime, alternative materials or others to cover the backlog
 - General backlog recovery plan
 - Possibility to organize special transports to reduce the transit time
 - Contact person - for this specific concern – with access to decision-makers.
- 3) In the event of a bottleneck, the supplier is able to deploy a task force on its side at short notice that is capable of making decisions in all relevant areas.

In order for the supplier to be exempt from complaint costs, it must meet all of the above points.

4. Labeling

4.1 Function of Labels (VDA 4994)

Suppliers must label containers using the MAHLE required Global Transport Label (GTL), which features the license plate in barcode form. Upon unloading, the barcode on the container's master label is scanned using a tablet. If the license plate was previously transmitted via ASN, the system will recognize the container. Labeling all containers with the GTL is essential for the MAHLE optimized, streamlined goods receiving process. The GTL label must be unique for 12 months.

The ASN must contain the ASN packaging information, the handling unit ID must match the GTL license plate, and the shipment must be labeled according to the VDA 4994 global standard.

Other deviations from the process (such as incorrect delivery bills or damaged packaging) can also be recorded directly in goods receipt using the tablet and documented immediately in the system.

For more details, please see: <https://www.mahle.com/en/purchasing/general-guidelines-for-suppliers/>

4.2 Basic Requirements for Labeling

All the detailed information on labeling requirements can be found at: <https://www.mahle.com/en/purchasing/general-guidelines-for-suppliers/>

Master labels should be placed on the long side and short side of the pallet, while single labels should be placed on



Fig. 1: The master and single label on the short side of the pallet



Fig. 2: The master label on the short side of the pallet



Fig. 3: The master label on a barrel



Fig. 4: The master and single label on the short side of the pallet



Fig. 5: The master label on the short side of the pallet



Fig. 6: The master label on a coil

5. Packaging

5.1 Introduction

The basic requirements for packaging, which a supplier must fulfill to cooperate with the MAHLE factories, are listed in the Logistics Failure Catalogue. The packaging instructions must be followed (correct material type, codes, stackability).

All detailed packaging guidelines from BUX are available on the MAHLE website – <https://www.mahle.com/en/purchasing/general-guidelines-for-suppliers/>

Global Logistic Guideline has posted a detailed list of BUX plants – [\(https://www.mahle.com/en/purchasing/general-guidelines-for-suppliers/\)](https://www.mahle.com/en/purchasing/general-guidelines-for-suppliers/).

5.2 Key points

5.2.1 Shipment Identification

One of the most important elements of shipment identification is the placement of an envelope with the delivery documents. They must be attached to each delivery.

The photo below shows how the envelope must be placed on the shipment.

Please note that if it is not possible to place the envelope with the delivery information on the shipment, it should be sent immediately by e-mail to the MRP controller.



Fig. 7: The envelope placed on the shipment



Fig. 8: The envelope placed on the shipment

5.2.2 Adhesive Dots

Use adhesive dots to attach labels to reusable packaging. Adhesive dots must have the same properties as those described in the packaging guidelines for reusable packaging.

For master labels, use four adhesive dots – marked in green.

For single labels, use two adhesive dots – marked in yellow.



Fig. 9: The master and single label on the short side of the pallet

5.2.3 Protection/Safety

All shipments must be secured in accordance with the packaging instructions listed in section 5.1. Shipments must not pose a threat during handling and transportation.

Attention should also be paid to the not full pallets. Every effort must be made to secure such a pallet. Not full pallets that have been properly and safely secured are shown below; these guidelines must be followed.



Fig. 10: Securing the shipment as required (1)



Fig. 11: Securing the shipment as required (2)

6. Transport and Delivery Documents

6.1 Advanced Shipping Notification (ASN)

All detailed information on the Advanced Shipping Notification (ASN) can be found in the “ASN – Guideline” on the <https://www.mahle.com/en/purchasing/general-guidelines-for-suppliers/>

6.2 Delivery Note

The delivery note gives MAHLE an overall view of the order and the goods that have been received. This allows faster identification of the delivery at good receipt.

The delivery note must be enclosed with each delivery in accordance with section 5.2.1. or, if this is not possible, it should be sent by e-mail to the MAHLE contact person.

All necessary and detailed information on transport and delivery documents can be found [here](#).

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