

# Supplier Logistics Manual

BENTELER Automotive Logistic Requirements



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## 1 Preamble

BENTELER Automotive Components and BENTELER Automotive Modules develops and produces innovative products – always with a focus on safety, the environment and lightweight construction. As a full service Supplier, it serves virtually every major automotive manufacturer in the world, with customer oriented solutions from a broad range of products and services.

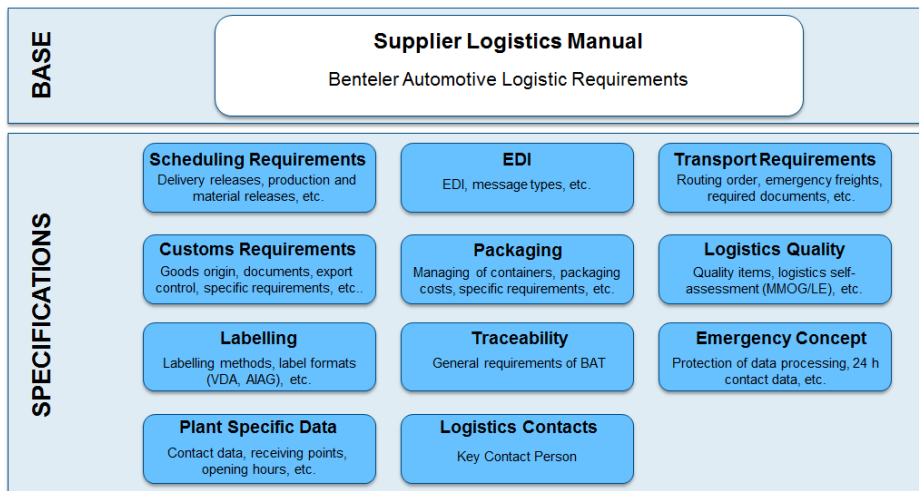
BENTELER Automotive is leading the challenge in the automotive segment especially in the field of logistics. Lean thinking from the customer to the Supplier is the driver of success. Therefore, BENTELER aspires to setup an appropriate flow and pull concept in the context of supply chain strategy.

This requires clear and open communication with all parties along the supply chain between Suppliers and BENTELER Automotive. The following logistics manual describes the requirements for Suppliers and shall apply to all deliveries to BENTELER Automotive facilities globally.

This logistics manual forms part of the purchase contract or any other purchase terms and conditions agreed between the Supplier and BENTELER Automotive. [However, in case of any conflict or discrepancies the purchase contract and/or the agreed terms and conditions shall take precedence over the supplier logistics manual.](#)

The Supplier has to ensure that any of its sub-Suppliers will be equally obliged and fulfil the same obligations as the Supplier under this agreement and its annexes.

The figure below gives an overview of existing documents.



**Figure 1: Overview of related logistics contents**

BS.SCM.023 Supplier logistics manual_V1.27.docx	Any printouts are not subject to modification. Prior to use, the user must check that this document is up-to-date! Valid Benteler Standards may be accessed on the Benteler Intranet.	Page: 4 of 32
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## 2 Scheduling Requirements

The delivery schedule is a message to a Supplier, which specifies the requirements in terms of timings and quantities, for both short and long term demands. BENTELER delivery schedules are generally based on the relevant frame contracts, any non-conformance to this standard must be agreed separately in a "Supplier Logistic Agreement" document (see chapter Plant Specific Requirements). The Supplier should check if the received delivery schedule is complete, correct and comprehensible (e.g. that Supplier name, part number, quantity and delivery dates are correct). If any discrepancies are noted, the Supplier must inform the responsible BENTELER plant immediately. If the Supplier does not dispute the delivery schedule within a maximum of 24 hours after release, it is considered as approved and binding for the Supplier. Basically, BENTELER does not require any delivery schedule confirmation.

Please note that delivery schedules maybe updated and the latest should be considered as valid.

### 2.1 Delivery Releases

The delivery schedule issued by BENTELER informs the Supplier of current and future requirements. The Supplier may approach BENTELER for non-binding, yearly forecast volumes. Based on these forecasts the Supplier should plan their own requirements with sub-Suppliers.

The date specified in the delivery schedule is the date that the BENTELER plant expects to pick up or arrive at BENTELER. The Supplier must ensure preparation of documentation and goods according to agreed pick up time, so that the ordered quantity will arrive at the BENTELER receiving plant on the estimated delivery date. The Supplier is to deliver in line with Benteler's requirements, no minimum order quantity exceeding one standard packaging size will be accepted. Specific agreements between the delivery plant and the receiving plant must be considered, and are found in the document "Supplier Logistic Agreement".

<i>Incoterm</i>	<i>Date provided in schedule lines</i>
<i>FCA</i>	<i>pick up date</i>
<i>DAP</i>	<i>Arrival date</i>

### 2.2 Production and Material Releases

Unless otherwise agreed, the delivery schedule shall contain 2 weeks of finished parts production and 2 weeks of raw material release.

### 2.3 Consignment

BENTELER'S consignment concept is intended to reduce assets whilst optimizing Supplier production and transport costs as well as the warehousing costs of both parties and therefore contributes to an optimized and collaborative supply chain. The consignment concept is the preferred delivery concept for BENTELER and is agreed in the SBS contract. Payment is triggered by box movements from BENTELER warehouse to production. Optional way which is allowed only in German BENTELER Plants, the consumption of parts will trigger the payment.

### 2.4 Phase out management

In case of Phase out management BENTELER will inform Supplier >6 months before EOP for evaluation of spare part supply management.

### 3 Exchange of Information and Data

Part of BENTELER's supply chain strategy is to promote the exchange of data electronically (EDI). Only with the support of modern communication techniques can daily business processes be simplified, standardized and a high degree of process reliability be achieved. The expectation over the coming years is that all Suppliers will be become compatible with electronic data exchange.

The expected standard in accordance with MMOG (see chapter 7.1) is to receive ASN data.

#### 3.1 Electronical Data Interchange (EDI)

Suppliers has communicate the following with BENTELER via Electronic Data Interchange (EDI):

- Delivery schedules (must)
- JIT-Schedules (optional)
- JIS-Schedules (optional)
- Advanced shipping notification (ASN) (must)
- Credit notes (optional)

Please note, technical requirements and message formats for the commercial data exchange, which must be observed for the interchange, have been prepared for download at [edi.support@BENTELER.com](mailto:edi.support@BENTELER.com).

Guidelines, assignments and test messages for EDI can be found online at: <https://www.benteler.com/>

Area: Global Procurement – EDI

When contacting BENTELER via electronic means, please ensure that the Parameter Agreement for Suppliers has been completed (download from <https://www.benteler.com/>). Furthermore, the scheduling of each EDI connection must be agreed with the central BENTELER EDI team, who can be contacted at: [edi.support@BENTELER.com](mailto:edi.support@BENTELER.com).

#### 3.2 Message Type

The standard message type is EDIFACT and should be used for incoming and outgoing messages. In exceptional cases other message types can be used if this is agreed with BENTELER.

## 4 Transport Requirement

The following chapter describes the requirements for modes of transportation from the Supplier to BENTELER plants. BENTELER plants typically organize the material and information flow as per the negotiated INCOTERM within the purchasing contract(s). Preferred INCOTERM is "FCA".

The mode of transportation, route and provider will be determined by BENTELER in accordance with the agreed delivery terms. All deliveries must be handed over to the agreed Logistic Service Providers (LSP) contracted by BENTELER. It is the Supplier's responsibility to provide the requested material in the correct quantity, quality and date / time according to the INCOTERM agreed. This includes complete documentation and packaging as per the agreed instructions. Any deviation to the planned and/or agreed transport/collection time must be reported to the assigned LSP and BENTELER plant SCM (responsible Material Planner) immediately.

Further emergency actions must be agreed with BENTELER plant SCM. Any costs incurred due to a failure to comply with these instructions will fall to the Supplier to account for.

### 4.1 Routing Instruction

The Routing Instruction will be provided by BENTELER or its Logistic Service Provider to the Supplier. It will contain information such as name and contact information of the Logistic Service Provider and any special transport requirements if applicable.

For more details please refer to chapter 13.

The pick up sheet sent by BENTELER will be base for the transportation request.

### 4.2 Premium Freight / Expedites / Special Transport

*Special transportation is defined as any transportation deviating from the agreed transportation process (BENTELER and Supplier), e.g.:*

- *Rush transportation*
- *Spot market*
- *Prototypes*
- *Expedited transport with second driver*

BENTELER's expectation is that all deliveries will be made 100 % on time, in accordance with the demand for accurate quantity and quality deliverance from the Supplier. **The expectation is that there is no expedited freight.** Additional costs resulting due to delay or quantity / quality reasons caused by Supplier will be charged against the Supplier.

Expedited freight is not to be organized by BENTELER, unless otherwise agreed with the Supplier. BENTELER reserves the right to organize the expedited freight themselves and charge back the Supplier with all related cost

### 4.3 Labelling

Each handling unit must be labelled according to BENTELER labelling standards (see Chapter\_8\_Labelling). BENTELER will inform the Suppliers, if additional labels are required for transportation. The Supplier is responsible for the correct labelling as per applicable laws and transportation rules.

If the material is classified as hazardous, the Supplier is also responsible for the labelling as per hazardous material regulations (including mandatory documentation).

Each packaging unit must be clearly labelled. The label shall be fixed by the packaging unit label holder or fastened on the box in another way which must be visible on the loading / unloading side of the truck.

Where multiple packages are placed on a pallet or in a container an additional "Master Label" must be fixed on the top or to one side of the load unit. To prevent damaged to labels especially when the container has no special or ideal place to fix the labels a plastic cover or pocket must be used. Labels from previous deliveries must be removed.

This specification is valid for all Suppliers and subcontractors delivering to any BENTELER plant in the following regions:

No	Geographical Area	Standard	Link
1	Europe / South Africa / Mercosur / Asia Pacific	VDA	VDA 4902 or <a href="#">VDA4994</a>
2	North America	AIAG	AIAG B-10 Trading Partner Label

**Table 1: Labelling Methods**

Unless an alternative agreement between the Supplier and the BENTELER plant receiving the goods has been made, this specification must be met.

#### 4.4 Loading

The following terms apply for loading:

- Goods shall be available for loading between commercial office hours (Monday to Friday between 7:00 am and 6:00 pm, unless otherwise agreed).
- Loading must start and end within the time window agreed by forwarder /LSP and Supplier.
- If no material is ready to be loaded, then the carrier is authorized to leave the Supplier's premises.
- BENTELER reserves the right to invoice the Supplier for any additional cost caused by the non-performance.
- The Supplier is only permitted to load the goods which have been ordered by BENTELER through the call off.
- The Supplier is responsible for loading the trailer.
- The Supplier shall be able to load all kinds of vehicles inclusive of mega trailers and smaller distribution vehicles. The Supplier must grant access to the driver picking up goods / material for piece count of handling units.
- If the Supplier has any complaints about the drivers or the equipment he shall contact the LSP

#### 4.5 Documents

The Suppliers shall provide the driver with the following documents

- Transportation document (CMR / Bill of Lading /Way Bill/Pickup sheet)
- Delivery-note / Packing list
- Customs document if required (e.g. T1, EX1 / ABD for goods not custom cleared within EU and invoice)
- In case of LTL shipments all transport documents (delivery note etc.) must be attached to the handling unit. Loose transport documents will not be forwarded in the Benteler LTL network and can cause in a claim/ penalty against the Supplier.



The Supplier and driver are required to note any deviation on the CMR or Bill of loading, e.g. waiting hours, quantities, packaging, etc. and must be signed by the Supplier and the driver. If any other documents are or become legally mandatory, the Supplier also has to ensure to provide those.

#### **4.6 Securing of goods**

The cargo securing shall fulfil all national and/or international regulations for sending and receiving countries and countries of transit. The driver is responsible for securing the goods correctly for all modes of transport. The driver shall close and if required seal the trailer after the loading is finished. To note, some countries (e.g. Germany) require by law that the load securing is done partly and at a minimum is controlled by the Supplier. In the case that re-securing is required this shall be done by the driver. For certain flows, a specific load securing certificate / instruction may be applicable. If there are additional loading requirements, e.g. anti-slide mats, more than average number of span sets etc., this information will be provided by the LSP/LSP.

#### **4.7 ASN information**

ASN must be sent to BENTELER within 15 minutes after departure.

#### **4.8 First In First Out**

All suppliers, sub-contractors and logistics service providers must ensure that the First In – First Out Principle is followed for all processes and consignments. This implies that goods from a new batch may only be delivered once all the items in the previous batch have been supplied.

### **5 General Customs Requirements, Supplier Declaration, Preferential Movement Certificates**

#### **5.1 Deliveries to BENTELER Locations**

The following provisions must be complied for deliveries to BENTELER locations worldwide. BENTELER motivation is to work in future with business partners (suppliers, transport forwarders , 3<sup>rd</sup> party logistics provider), which are certified for secured global supply chains. Our business partners need to hold in future a AEO (Authorized – Economic-Operator) Status, proven by valid certificate. Before getting AEO certificate, our business partners should also follow up the AEO requirements to conduct Customs affairs and provide guarantee letter to Benteler yearly.

#### **5.2 Origin of Goods**

##### **5.2.1 Deliveries from Suppliers within the European Union (EU)**

For all deliveries within the EU, the Supplier must complete the "Long Term Supplier's Declaration, according articles 61-66 implementation act to Union Customs Code EC regulation 952/2013", issued by BENTELER Automotive. Also, the Supplier must give a legally binding declaration on the origin and the preferential status of the goods as required by customs regulations (country of origin and preferential tariff status).The Supplier must process and return this form within 20 days in order to avoid reminders from the Customs & Trade Department (and costs resulting thereof).

BENTELER will neither accept declarations made on the Supplier's own forms nor references to the origin and the preferential tariff endorsements in invoices. The Supplier shall notify BENTELER Automotive promptly in written form regarding any changes to declarations which have already been submitted (especially regarding changes of the country of origin and the preferential status). It shall not be necessary for BENTELER to request such notification specifically. The Supplier will be liable for any costs at BENTELER caused by delayed or unsubmitted declarations. In cases of doubt, the Supplier is responsible for clarifying unclear points with the customs authorities or chambers of commerce. If there are any further requirements from local customs authorities, the Supplier must adhere to these specific requirements.

### **5.2.2 Deliveries from Suppliers in third countries with a Preferential Customs Agreement**

Deliveries to BENTELER locations in third countries with a preferential agreement need to be shipped with the correct and legally applied Preferential Movement Certificate (e.g. EUR.1 document, Certificate of Origin Form A, NAFTA - declaration, preferential endorsement on the invoice in case of an authorized exporter by the customs authorities, or other applicable documents). All documents required for shipments that exceed customs regulations (particularly preferential documents) must be obtained by the Supplier at his own cost and must accompany the shipment.

Any duties or other costs resulting from the Supplier's failure to comply with these requirements will be charged to the Supplier. In the event of an inconsistency between these requirements and the preferential regulations (e.g. individual local customs regulations), the Supplier must inform BENTELER in written form prior to the conclusion of the contract.

### **5.3 Required documents from the Supplier**

The Supplier has to attach all required documents to the shipments.

#### **5.3.1 Invoices and packing lists**

To ensure a correct customs clearance in the importation process of third-country goods, the invoices and packing lists must contain the following information:

- Invoice number and invoice date
- Vendor name and address
- Consignee name and address
- Delivery address (in case it differs from the consignee address)
- Order number, scheduling agreement number or other reference numbers
- Contractually agreed delivery term
- BENTELER part numbers (PN)
- Country of origin and the HTS-Code for each PN according to the Harmonized Tariff System (must correspond with the information in the preferential agreement)
- Quantity of goods (each PN)
- Package type, quantity and its measurements (example: 5 cartons or 3 skids or 2 tubes etc.)
- Value of goods including piece price and total price
- Contractually agreed currency
- Gross weight
- Net weight

The invoice that accompanies the goods must be identical to the commercial invoice. For business transactions within EU-countries the invoice must include both the Supplier's VAT ID and the VAT ID of the respective BENTELER location. If a delivery is free of charge, this must be noted on the invoice ("value only for customs purposes"). The value indicated for customs purposes must also correspond to the actual market value of the goods.

### **5.4 Export Control**

In compliance with EU, national and international regulations such as the U.S. export control regulations, the Supplier is requested to provide BENTELER with the appropriate export list number (national/ EU law), and with the Export Control Classification Number (ECCN, U.S. law) for his goods (hardware, software, technology, etc.).

If this should not be possible, the Supplier must agree to provide BENTELER with the technical information needed for the classification of the individual goods in accordance with the control lists. Such information might include, for example, technical parameters, functional descriptions, material composition, parts lists, specifications, diagrams, and advertising brochures.

Based on national and international law, it may also be necessary to obtain information from the Supplier regarding the percentage breakdown of the product by country of origin and value. The objective of doing so is to establish whether or not a Supplier's product is subject to U.S. law. In such cases, the Supplier is asked to provide the following information on his product(s) in writing:

Product designation	Supplier part - no.	BENTELER part - no.	Dual Use - no.	ECCN	% US share	Country of origin

Table 2: Export Control

Where applicable, the Supplier shall also provide this information for other countries.

Key for filling in the table:

- Product designation: Usual commercial designation of the product.
- Supplier part number: The Supplier's internal part number.
- BENTELER part number: Part number for BENTELER records.
- Dual use number: Indicate the number from the EU dual use list (maximum of 15 digits). If there is no obligation to obtain authorization, please enter 'N' in this field.
- ECCN: Indicate the number of the Commerce Control List (CCL) of the U.S. (maximum of 15 digits). Indication of the ECCN number confirms that your product is subject to the U.S. Export Administration Regulations (EAR). Should the Supplier's product not be subject to the U.S. EAR, please enter 'N' in this space.
- % U.S. share: U.S. share as a percentage of the ex-works price. In evaluating whether goods are subject to U.S. jurisdiction, the share of value made up by U.S. preliminary materials must be indicated in relation to the ex-works price of the goods. The Supplier can leave out this column in case the goods consist fully of preliminary materials that do not originate from the U.S.
- Country of origin: Country of origin or origin without preference.

The Supplier must be aware that business transactions between him and BENTELER are subject to export control laws including those of the USA. BENTELER's obligation to fulfil any purchase agreement is subject to the provision that the fulfilment is not prevented by any impediments arising out of national and international foreign trade and customs requirements or any embargos or other sanctions.

## 5.5 Country-specific Import Requirements

### 5.5.1 The People's Republic of China

#### 5.5.1.1 Invoice requirements

- Invoice number and invoice date
- Vendor name and address
- Purchaser name and address (= Bill to)
- Consignee name and address (= Ship to)

- Shipper name and address
- Purchase order number, scheduling agreement number or other reference number must be displayed
- Contractually agreed delivery term
- AEO number
- Description of the goods: A thorough English description and part numbers must be indicated
- Value of goods including piece price and total price
- Payment terms are necessary for shipping documents. If the cargo is free of charge, please indicate using the following; "No commercial value, the value is for customs purpose only."
- The value indicated for customs purpose only must correspond to the actual market value of the goods. Zero pricing is not permitted.
- Contractually agreed currency
- If the cargo is subject to the China Compulsory Certification catalogue (CCC catalogue), the shipper should either provide the copy of the CCC certification or other related information (product photos, technology information, testing report, etc.) in order to support BENTELER with the application of a CCC-exemption license.
- If the cargo needs to be delivered to an alternative address appointed by BENTELER, this must be discussed with BENTELER case by case. If the cargo should be delivered to a BENTELER plant directly, the consignee address must be shown as follows:

**Bill to:**

**Actual address**

**Consignee:**

**Actual address**

- Quantity of each different PN. Shippers should ensure that the cargo quantity stated in the documents is the same as the actual physical goods. If this check is not completed, BENTELER will be penalised by customs (e.g. in China).
- Country of origin must be indicated. Please note that no abbreviations such as ROC (Republic of China) are allowed in any document.
- All documents must be stamped or signed by the Supplier.
- The use of words such as "Revised" or "Amendment" or any handwriting is not permitted.
- Invoices are official documents and should be treated as such.

### 5.5.1.2 Packing List Requirements

- Vender name and consignee name must be indicated correctly.
- PO# and PN must be displayed.
- English description must be displayed.
- Quantity must be shown on each different PN.
- Net weight must be indicated for each PN.
- The total G/W should include the total cargo packing material weight such as carton weight or pallet weight. The total G/W data in P/L must be the same as the G/W in the HAWB or HB/L.
- Package type, quantity and its measurements must be shown (example: 5 cartons or 3 skids or 2 tubes etc.)

- If the cargo package is a pallet, please indicate the pallet's material in the packing list (also view 5.5.1.3 for further information).
- The documents must be signed by the Supplier. Either a stamp or signature is acceptable.
- The use of the words "Revised" or "Amendment" or any handwriting is not permitted.
- Packing Lists are official documents and should be treated as such.

### 5.5.1.3 Packaging Declaration

- Shippers need to provide a "Non-wooden packing announcement" (if the packing material is not wooden, plywood belongs to non-wooden) or an IPPC mark certification (if package is wooden) according to the International Plant Protection Convention (IPPC).
- Effective 1st Jan 2006, all wooden packaging (pallets, crates etc.) bound for China must have the IPPC mark to certify that they have been heat treated or fumigated according to the International Standards for Phytosanitary Measures (ISPM) No. 15.
- Official Fumigation or Heat Treatment Certification is not compulsory but vendors are encouraged to attach these to the shipping documents. Original certificates are not required.
- IPPC should be marked in the standard place and be clear. IPPC:

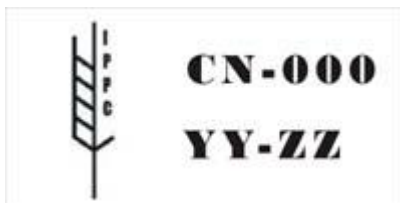


Figure 2: IPPC – Label

The standard place is on the outside of pallet, so to ensure that it can be read without having to move the cargo.



Figure 3: IPPC – Label on pallet

- For FCL cargo any wooden material which is not part of the container must possess the IPPC mark as well.
- Plywood and pallets made of other material are not a part of the ISPM 15 standards.

### 5.5.1.4 HAWB/ HBL

- The description of the cargo goods must be the same as the one in the invoice. If there are too many items on the invoice, a general description may be used. Invoice numbers will be indicated in the HAWB or HB/L.
- G/W in HAWB or HB/L must be the same as in P/L.
- The total number of pieces must be consistent with the Packing List.

### 5.5.1.5 Country of Origin Labelling on Physical Goods

- The country of origin should be indicated on the outer packing of the imported cargo.
- The specific country of origin must be indicated. Regions such as EU or ASEAN are not acceptable.
- If the import goods are subject to screws, nuts or similar goods, please also provide the original country certification to BENTELER. If the delivery port is Dalian, the same requirements apply.

## 5.5.2 Russian Federation

### 5.5.2.1 Invoice and packing list requirements

The following accompanying documents should be provided with the goods:

- 6 examples of the International consignment note (CMR);
- Original invoices (or proforma-invoice in case of free of charge deliveries) in four (4) copies with the following data:
  - Invoice number and invoice date
  - Vendor name and address
  - Purchaser name and address (= Bill to)
  - Consignee name and address (in case it differs from the purchaser address)
  - Vendor's and purchaser's identification number: Individual Taxpayer Identification Number (ITIN) (if applicable) or VAT number, Registration Reason Code (RRC) (if applicable)
  - Purchase order number, scheduling agreement number or other reference numbers with the date of issue
  - Contractually agreed delivery term
  - Description of the goods in English
  - BENTELER PN
  - Country of origin and the HTS-Code according to the Harmonized Tariff System (must correspond with the information in the preferential agreement)
  - Value of goods including piece price and total price (two digits after comma)
  - Contractually agreed currency
  - Quantity of each different PN
  - Package type, quantity and its measurements must be shown (example: 5 cartons or 3 skids or 2 tubes etc.)
  - Gross weight (three digits after comma)
  - Net weight for each PN (three digits after comma)
  - Trademarks of the goods
- Export declaration of the country of origin.

### 5.5.2.2 Technical documents

For the purpose of goods classification and customs clearance, the Supplier must send drawings and photos of the goods, describe main technical characteristics, key functions and its primary usage.

### 5.5.2.3 Safety Certificate

A safety certificate and chemical analysis have to be provided by the Supplier for chemical goods.

#### **5.5.2.4 Date of Manufacture**

In case goods were previously used, the Supplier must provide information proving the date of manufacture.

#### **5.5.3 North America**

##### **5.5.3.1 Air**

- Commercial/ Pro-forma Invoice
- Packing List
- Master Airway Bill
- House Airway Bill
- Free Trade Agreement Documentation and/or Manufacturer's Affidavit (preferred)

##### **5.5.3.2 Ocean/ Vessel**

- Commercial/ Pro-forma Invoice
- Packing List
- Original/ Non-Negotiable Bill of Lading
- Free Trade Agreement Documentation and/or Manufacturer's Affidavit (preferred)

##### **5.5.3.3 Invoice Requirements**

- Invoice must be in English, or accompanied by an English translation, and must be signed or stamped
- Invoice number and invoice date
- Vendor name and address
- Purchaser name and address (= Bill to)
- Consignee name and address (in case it differs from the purchaser address)
- Purchase order number, scheduling agreement number or other reference numbers
- Contractually agreed delivery term
- Description of the goods
- BENTELER PN
- Country of origin and the HTS-Code according to the Harmonized Tariff System (must correspond with the information in the preferential agreement)
- Port of entry (US Port)
- Quantity of each different PN
- Value of goods including piece price and total price
- Value of auxiliary items (dies, tools, etc.)
- All additional charges (freight, insurance, commission, packaging, etc.)
- Rebates, drawbacks and bounties should be separately itemized
- Contractually agreed currency
- Gross weight
- Net weight for each PN

Note: For questions, issues or notifications please contact the NAO Customs Group at [customs.dept@BENTELER.com](mailto:customs.dept@BENTELER.com)

## 5.5.4 Mexico

### 5.5.4.1 Invoice Requirements

- Invoice must be in English, or accompanied by an English translation, and must be signed or stamped
- Invoice number and invoice date
- Vendor name and address
- Purchaser name and address (= Bill to)
- Consignee name and address (in case it differs from the purchaser address)
- Vendor's and purchaser's identification number: Individual Taxpayer Identification Number (ITIN) (if applicable) or VAT number
- Purchase order number, scheduling agreement number or other reference numbers
- Contractually agreed delivery term
- Description of the goods including the model, serial number and specific marks
- BENTELER PN
- Country of origin and the HTS-Code according to the Harmonized Tariff System (must correspond with the information in the preferential agreement)
- Quantity of each different PN
- Value of goods including piece price and total price
- Value of auxiliary items (dies, tools, etc.)
- All additional charges (freight, insurance, commission, packaging, etc.)
- Rebates, drawbacks and bounties should be separately itemized
- Preferential endorsement on the invoice (if applicable)
- Currency
- Gross weight
- Net weight for each PN

### 5.5.4.2 Mill Certificate for Steel

Producer's Mill Certificate for steel must contain:

- Detailed description of the material including technical, chemical and physical information as well as the dimensions
- Country of origin of the produced material
- Name and data of one contact person (address, telephone and e-mail) in the producing company
- Mill Certificate number and the issue date
- Material's volume
- Exporting country
- Number of batch or production order
- Value of the material that the Mill Certificate covers
- Number of the Mill wash



## 5.5.5 Brazil

### 5.5.5.1 Invoice Requirements

- Invoice must be in English, or accompanied by an English translation, and must be signed or stamped: Signature must be original, handwritten and signed in blue ink
- Invoice number and invoice date
- Vendor name and address
- Purchaser name and address (= Bill to)
- Consignee name and address (in case it differs from the purchaser address)
- Vendor's and purchaser's identification number: Individual Taxpayer Identification Number (ITIN) (if applicable) or VAT number
- Purchase order number, scheduling agreement number or other reference numbers
- Contractually agreed delivery term
- Description of the goods including the model, serial number and specific marks
- BENTELER PN
- Country of origin (where the product was manufactured) and the HTS-Code according to the Harmonized Tariff System (must correspond with the information in the preferential agreement)
- Country of purchase (where the product was acquired to be exported to Brazil, regardless of origin)
- Country of shipment (where the product was shipped from)
- Quantity of each different PN
- Package type, quantity and measurements must be shown (example: 5 cartons or 3 skids or 2 tubes etc.)
- Value of goods including piece price and total price
- Value of auxiliary items (dies, tools, etc.)
- All additional charges (freight, insurance, commission, packaging, etc.)
- Rebates, drawbacks and bounties should be separately itemized
- Payment terms (example: 60 days after BL date, in cash)
- Contractually agreed currency
- Gross weight
- Net weight for each PN
- Final destination (port, airport, etc.)

## 6 Packaging

The purpose of the packaging policy is to ensure the quality of the delivered parts with minimum cost, optimum stacking conditions and standard packaging from Supplier to BENTELER.

Returnable packaging is preferred unless expendable packaging is more economical. The packaging concept for each material is described in separate packaging instructions.

### 6.1 General requirements for packaging

#### 6.1.1 Design

BENTELER standard containers should be used for packaging in all cases unless there are exceptional circumstances. If special containers are essential, Suppliers must work with BENTELER on the design.

All packaging shall be designed to perform the functions required and ensure that the goods reach their destination in a satisfactory condition. The required properties are for instance:

- product protection
- stackable, standardized (according to BAT standard container catalogue)
- standardized for ergonomic handling
- maximum gross weight of 15 kg for small loading carrier (SLC)
- usage of wooden pallets in accordance with IPPC-labelling for international business
- in accordance with applicable national and international regulations on dangerous goods
- ecological aspects to be considered (reduction of packaging material and focus on recycling aspects)

In parallel to serial packaging, the Supplier shall also develop alternative or emergency packaging for situations when serial packaging is not available. These alternative packaging solutions must be submitted in the standardized BENTELER format (see packaging instructions) for review and approval.

#### 6.1.2 Management of containers

The Supplier will plan the timely provision of containers and/or packaging to support BENTELER delivery requirements. BENTELER is responsible for container management, but the Supplier must support BENTELER to ensure container movement transparency in the supply chain. The Supplier must adhere to the following:

- Use the Container Management system provided by BENTELER (WEB Platform) – in case it's applicable
- Request empty packaging in BENTELER's Container Management System or optional via Email
- Manage a container account and monthly reconciliation
- Complete a container inventory on request from BENTELER
- Maintain and clean containers where it has been agreed
- Report issues to BENTELER in a timely manner

Any deviation following the account check must be clarified with the relevant BENTELER plant immediately after occurrence.

The Supplier is responsible for ensuring goods are transported within suitably functioning containers, if necessary minor container repairs must be made by the Supplier. Costs for repair will be paid by the party that has caused the damage.

Any costs associated with extra cleaning are to be part of the Supplier's quotation and are the responsibility of the Supplier.

## 6.2 Packaging Costs

The quotation of packaging must contain all costs (e.g. development, sample container, presentation of sample and serial container, transport tests).

Supplier owned containers are to be paid by BENTELER in the piece price. After the end of production the containers will become the property of BENTELER and must be handed over to BENTELER at an agreed time and place.

## 6.3 Disposable/ Oversea packaging

Shipments of oversea packaging or disposable packaging must follow [agreed packaging instructions](#).  
[The corrosion protection of the supplied parts must form part of the disposable packaging concept](#).

## 6.4 Specific packaging requirements

The project specific packaging requirements will be provided optionally by BENTELER Automotive and BENTELER Logistics in the Supplier logistics agreement with the Supplier.

# 7 Logistics Quality

BENTELER expect the highest quality of logistics, as such Suppliers must meet the following **minimum standards**:

- Quality Management System certified acc. to ISO 9001 with compliance to ISO 16949
- Commitment to the Zero-Defects Principle
- Clear environmental standards (e.g. ISO 14001)
- Traceability throughout the entire supply chain
- Cost and/or technology leaders in the respective industries
- Full compliance with our Terms and Conditions
- Commitment to the BENTELER Philosophy and Code of Conduct (Compliance)

## 7.1 General Supplier Communication & Support

The Supplier shall act as an extension of BENTELER's business and support BENTELER's plants with open and accurate communication.

## 7.2 Logistics Complaints

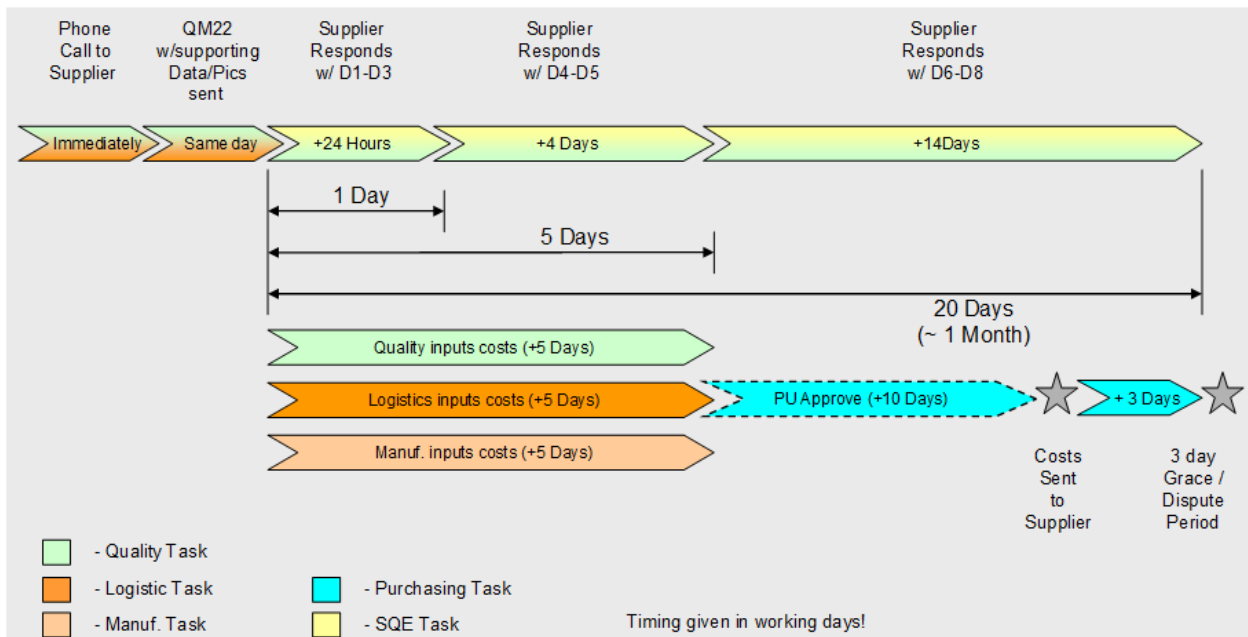
If the Supplier's logistics quality does not meet the requirements, a claim for related fees and penalties will be issued by BENTELER. These are assigned accordingly and invoiced to the Supplier.

The minimum charge per incident will be one man hour at the defined rate for the specific country in which the incident occurred. The Supplier is entitled to proof that he caused no or less damage than the fixed

charges. The Supplier remains liable for any damages beyond the fixed charges. Additional costs (e.g. transport, sorting, etc.) will be charged in accordance to justified expenses per incident. However if regional charge agreements are in place these will take precedence.

The Supplier has to provide an 8D report [upon request](#).

The lead time to respond to an 8D is described as below:



## 8 Traceability

The Supplier is responsible for the traceability of all supplied goods to BENTELER Automotive plants.

The minimum requirements that the Supplier must fulfil are as follows:

- Delivery with a standardized label per packaging unit according to BENTELER transport label specifications. Each packaging unit needs to be clearly labelled.
- The following data is mandatory and must be provided by the Supplier via delivery notes, advanced shipping notifications, EDI, etc.;
  - traceability reference number such as, lot number, batch/ lot no., unique Handling Unit (HU) no. or delivery note no. as defined by project requirements
  - part number
  - part description
  - delivery note number
  - delivery date
  - quantity per packaging unit with quantity of packaging units per delivery
  - total quantity per shipment
  - gross/ net weight

Additional requirements are specified in separate documents (e.g. part drawing).

Suppliers must be able to provide traceability information to BENTELER, upon demand, within 48 hours

## 9 Supplier Contingency Plan

Suppliers must have an actionable emergency contingency plan in place to ensure the continuous and sustainable supply of products to BENTELER. This plan should address force majeure, acts of God, power outages, labour work stoppages, failure of electrical data processing, etc. The plan should also specifically address the facility and equipment used to produce the products required by BENTELER. Details on how the supply chain to BENTELER would continue in such an emergency situation should be included. Before Serial Production (= Start of Production (SOP)), the Supplier shall provide this sustainable emergency plan to BENTELER.

If possible the FMEA method for the detection of fault-possibilities and influence-analysis is to be applied.

## 10 Plant Specific Requirements

Plant specific requirements must be agreed with the receiving BENTELER plant before the start of production. The Supplier logistics agreement in use should include:

- General Information with mandatory annexes
- Parties with process involvement (BENTELER / Supplier / Service Provider / Carrier)
- Data transfer procedures
- Transport / Empties Management

The Supplier logistics agreement describes the data and rules for the daily business in detail. The general information is given an overview about the existing specific requirements:

<b>Supplier:</b>		
<b>Annexes to the Agreement</b>		
Mandatory Annexes		Optional
<input type="checkbox"/> Contact List	<input type="checkbox"/> Labelling Specification	<input type="checkbox"/> Pick Up process description
<input type="checkbox"/> Traceability requirements		<input type="checkbox"/> Misc.
<input type="checkbox"/> Packaging Instructions		<input type="checkbox"/>
<input type="checkbox"/> Exchange of Data / EDI Guideline		<input type="checkbox"/>

Table 3: Plant Specific Requirements

## 11 Logistics Contacts

In order to ensure efficient communication between Suppliers and BENTELER, Suppliers must designate key contact personnel responsible for handling logistics support:

- name of contact,
- nominated deputy and
- superior

with e-mail and phone numbers.

The key contact person must have the necessary expertise to handle each issue regarding products and orders. If not otherwise discussed, the communication language will correspond to the location of the individual BENTELER plant or will be English. The key contact will always be reachable during the Supplier's regular local working hours. Outside of these business hours, the delegated emergency contacts must be reachable.

All contact details must be entered into the Supplier logistics agreement and into the emergency concept. Contact list must be updated in case of changes annually.

## 12 Glossary

Term	Definition
<b>830</b>	Planning Schedule with Release Capability Transaction Set - ASC X12 standard for the Planning Schedule
<b>856</b>	Ship /Notice /Manifest Transaction Set - ASC X12 standard for the Advanced Ship Notice (ASN)
<b>862</b>	Shipping Schedule Transaction Set - ASC X12 standard for the Ship Schedule
<b>866</b>	Production Sequence Transaction Set - ASC X12 standard for the In-sequence Ship Schedule
<b>(JIT)</b>	Just in Time
<b>2PL</b>	Second-party logistics provider, an asset-based carrier that owns the means of transportation
<b>3PL</b>	A <b>third-party logistics provider</b> (abbreviated <b>3PL</b> , or sometimes <b>TPL</b> ) is a firm that provides service to its customers of outsourced (or "third party") logistics services for part, or all of their supply chain management functions. Third party logistics providers typically specialize in integrated operation, warehousing and transportation services that can be scaled and customized to customers' needs based on market conditions and the demands and delivery service requirements for their products and materials
<b>4PL</b>	A 4PL is neutral and will manage the logistics process, regardless of what carriers, forwarders, or warehouses are used. The 4PL can and will even manage 3PLs that the customer is already currently using.
<b>8D report</b>	Eight Disciplines Problem Solving report
<b>Advanced Product Quality Planning (APQP)</b>	Advanced product quality planning (APQP) is a framework of procedures and techniques used to develop products in industry, particularly the automotive industry. Advanced Quality Planning embodies the concepts of error prevention and continual improvement, and is used in a multidisciplinary approach. synonymous with APQ.
<b>Advanced Quality Planning (AQP)</b>	Advanced product quality planning (AQP) is a framework of procedures and techniques used to develop products in industry, particularly the automotive industry. Advanced Quality Planning embodies the concepts of error prevention and continual improvement, and is used in a multidisciplinary approach. synonymous with APQP.
<b>Advanced Shipping (or Ship) Notice (ASN)</b>	An EDI transaction listing the contents of a shipment of goods as well as additional information relating to the shipment including order information, product description, physical characteristics, packaging type, marking, carrier information and configuration of goods within the transportation equipment. The ASN completes the JIT cycle, and when used in conjunction with bar coded shipping labels, it virtually eliminates manual receiving functions by moving data accounting records for electronic payment, reducing the need for traditional invoicing procedures.
<b>AIAG</b>	abbreviation, Automotive Industry Action Group - A trade association working to increase member productivity through a cooperative effort of North American vehicle manufacturers and their Suppliers.
<b>AP</b>	Asia Pacific
<b>ASN</b>	Advance Shipping (or Ship) Notice
<b>Assessment</b>	The evaluation of achievement against a specified requirement/standard.
<b>Balance out</b>	The final quantity required by a customer before the item is discontinued from production.

<b>Bar Code / Bar Code Symbology</b>	The combination of symbol characters and features required by a particular symbology, including quiet zones, start and stop characters, data characters, check characters, and other auxiliary patterns, which together form a complete scannable entity.
<b>Benchmarking</b>	The process of comparing current performance against the practices of other leading Organizations for the purpose of improving performance. Companies also benchmark internally by tracking and comparing current performance with past performance.
<b>BENTELER Automotive</b>	<a href="#">BENTELER Automotive includes the devisions of BENTELER Automotive Components and BENTELER Automotive Modules</a>
<b>Bill of Lading</b>	A legal document generated by a shipper to consign a load to a carrier or transfer responsibility to a carrier. A bill of lading includes information such as number of cartons, weight, carrier, ship-to address, etc. Abbreviation: B/L
<b>Bill of Lading (master)</b>	A consolidated bill of lading, covering a number of individual bills of lading. Abbreviation: MB/L
<b>Bill of Material (BOM)</b>	Total list of all components and materials required to manufacture and/or assemble a particular item.
<b>BOSLE</b>	Benteler Operating System – Lean Enterprise
<b>Bottleneck</b>	The point in a process that limits total output.
<b>Buffer</b>	A quantity of materials used to protect against process variability.
<b>Bunker Adjustment Factor (BAF)</b>	A freight adjustment factor reflecting the current cost of bunkers.
<b>Calibration</b>	A set of operations that establish, under specified conditions, the relationship between a measuring device and a traceable standard of known reference value and uncertainty.
<b>Call-off</b>	See also " <b>Release</b> "
<b>Capacity</b>	The highest number of units that can be consistently produced in a given period of time. Generally expressed in time increments of both straight time and maximum sustainable overtime levels.
<b>CCC</b>	China Compulsory Certification
<b>CCL</b>	Commerce Control List
<b>Changeover (or setup)</b>	The amount of time taken to change a process over from the last part of a production run to the first good repeatable part of the next production run.
<b>CIP</b>	Continous Improvement Process
<b>CMR</b>	'Convention Relative au Contrat de Transport International de Marchandises par la Route'. That means an international agreement that contains the rights and obligations of parties involved in road transport
<b>CNPJ</b>	CNPJ (short for Cadastro Nacional da Pessoa Jurídica in Portuguese, or National Registry of Legal Entities), is an identification number issued to Brazilian companies by the Secretariat of the Federal Revenue of Brazil (in Portuguese, Secretaria da Receita Federal).
<b>Commodity</b>	A category of similar physical substances or products (e.g., electronics, metals) which are interchangeable.
<b>Container</b>	A receptacle, expandable or flexible, covering for shipping goods. Example is a carton, case, box, bucket, drum, bin, bottle, bundle, or bag, that an item is packed and shipped in.
<b>Contingency</b>	An event that may occur but that is not likely or intended; a possibility.



<b>Continual Improvement</b>	The operational philosophy that makes best use of the talents within the Company to produce products of increasing quality for our customers in an increasingly efficient way that protects the return on investment to our stockholders. This is a dynamic strategy designed to enhance the strength of the Company in the face of present and future market conditions. It contrasts with any static strategy that accepts (explicitly or implicitly) some particular level of outgoing nonconformance as inevitable.
<b>Conveyance</b>	Equipment used to move parts and or containers (sea containers, semi trailers, and rail cars).
<b>Corporate Responsibility</b>	An organization's sense of responsibility towards the impacts of their activities on the public interest including the environment, employment, communities, stakeholders, and society.
<b>Corrective and Preventive Actions</b>	Corrective Action - Action taken to eliminate the causes of an existing nonconformity or other undesirable situation in order to prevent recurrence. Preventive Action - Action taken to eliminate the causes of a potential nonconformity or other undesirable situation in order to prevent occurrence.
<b>C-TPAT</b>	The Customs-Trade Partnership Against Terrorism (C-TPAT) is a voluntary supply chain security program led by U.S. Customs and Border Protection (CBP) and focused on improving the security of private companies' supply chains with respect to terrorism.
<b>Cum Start Date</b>	The date that the customer specifies he will begin counting. Used in a cum-based system.
<b>Cum-Based System</b>	A system that uses the cumulative quantity received and cumulative quantity shipped to calculate net quantities required and past due quantities.
<b>Cumulative Quantities (CUMS)</b>	A running total as a count of parts shipped or received in a series or sequence of shipments.
<b>Customer Requirements</b>	The requirements or specifications from the original equipment manufacturer (typically the automobile company).
<b>Cycle Counting</b>	A method of auditing inventory accuracy by counting only specified parts/material on a predetermined schedule
<b>DELFOR</b>	UN/EDIFACT standard for the delivery forecast with release capabilities.
<b>Delivery Order Reference or Number</b>	A number used for tracking an order (represents a quantity ordered and a delivery or ship date).
<b>DELJIT</b>	UN/EDIFACT standard for the Delivery Just-in-Time material release.
<b>Demand Variability</b>	Fluctuations in demand from one release to another for the same period.
<b>Demurrage</b>	1. Holding a ship, freight car, or other cargo conveyance during loading or unloading beyond the scheduled time of departure. 2. Compensation paid for such a delay.
<b>DESADV</b>	DESADV EDIFACT EDI message for the Ship Notice Dispatch Advice. Message specifies details for goods dispatched or ready to be shipped.
<b>Direct Marking</b>	An additive or deductive process to establish traceability.
<b>Dunnage</b>	Packaging material that protects the product during transit.
<b>EAR</b>	Export Administration Regulations (U.S. Export Control)
<b>ECCN</b>	Export Control Classification Number
<b>EDI</b>	abbreviation, Electronic Data Interchange

<b>EDIFACT</b>	EDI for Administration, Commerce, and Transport. A set of United Nation rules for electronic data interchange.
<b>Electronic Communication</b>	Conducting business electronically via traditional EDI technologies or online by the internet.
<b>Electronic Data Interchange (EDI)</b>	The computer-to-computer exchange of formatted data between trading partners in a standard format and syntax (e.g., ANSI ASC X12, UN/EDIFACT, VDA).
<b>Enterprise Resource Planning (ERP)</b>	Software that integrates internal and external management information across an entire organization, embracing finance/accounting, manufacturing, sales and service.
<b>ERP</b>	abbreviation, Enterprise Resource Planning
<b>ETA</b>	Estimated time of arrival
<b>ETD</b>	estimated time of departure
<b>EU</b>	abbreviation, European Union
<b>EUR1-docu</b>	The EUR 1 certificate is a preferential document for goods that are produced inside the EU and which fulfil conditions in the various origin protocols concluded with destination countries.
<b>ex1, ABD</b>	Export Accompanying Document
<b>FCA</b>	Free Carrier, delivery conditions
<b>FCL</b>	Full Container Load
<b>FIFO</b>	abbreviation, First In First Out
<b>Finished Goods / Parts Inventory</b>	Produced items, ready for transfer to the customer.
<b>First in First Out (FIFO)</b>	Inventory management process ensuring that the first received is the first used.
<b>FSC</b>	abbreviations: Fuel Surcharge. Fuel cost added to the regular agreed transport costs depending on market fluctuation.
<b>G/W</b>	Gross weight
<b>HAWB/HBL</b>	House Air Way Bill, A bill of lading issued by a freight forwarder
<b>HTS</b>	Harmonized Tariff System
<b>INCOTERM</b>	International Commercial Terms
<b>Internal Customer</b>	The next process, operation or function within an organization.
<b>Internal Supplier</b>	The previous process, operation or function within an organization.
<b>INV# number</b>	Invoice number is issued when you used the CCL service
<b>Inventory</b>	Material, supplies and/or finished goods held for future use or sale. Inventory buffers the production process against the uncertainty of demand, the variability of the process, and the cycle time of the process.
<b>Inventory Transactions</b>	Inventory transactions document the quantitative change in inventory due to a business event or transaction (e.g., Supplier receipt). In addition to the inventory impact of the event (i.e., the actual receipt quantity of a part), inventory transactions also record contextual information about the event. In the case of a Supplier receipt,

	contextual information could include the Supplier, date/time of the receipt, part lot number, etc.
<b>IPPC</b>	International Plant Protection Convention
<b>ISO/TS16949</b>	A quality management system that provides for continual improvement, emphasizing defect prevention and the reduction of variation and waste in the supply chain. ISO/TS16949 applies to the design/development, production and, when relevant, installation and servicing of automotive-related products. It is based on ISO9001.
<b>ISPM 15 standard</b>	International Standards For Phytosanitary Measures No. 15
<b>ITIN</b>	Individual Taxpayer Identification Number
<b>JIS</b>	abbreviation, Just In Sequence
<b>Kanban</b>	A pull replenishment system used at a stock point in which a supply batch is ordered based upon a usage of a previous batch.
<b>Key Performance Indicator (KPI)</b>	Financial and non-financial metrics used to help an organization define and measure progress toward organizational goals.
<b>KLТ</b>	abbreviation, Kleinladungsträger, Standardized small load carrier
<b>KPI</b>	abbreviation, Key Performance Indicator
<b>Lead Logistics Provider (LSP)</b>	A logistics operator contracted to manage material flow between Supplier and customer. Also referred to as 3rd Party Logistics Provider.
<b>Lead Time</b>	1. The time interval between the conception or designing of a product and its actual production. 2. The time interval between the placing of an order and the delivery of the product or service
<b>Lean</b>	Identifying and eliminating any process or activity within the manufacturing system that the customer will not pay for which may be regarded as non-added value or waste.
<b>LSP</b>	abbreviation, Lead Logistics Provider
<b>Logistics</b>	The process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from point of origin to point of consumption for the purpose of conforming to customer requirements.
<b>Logistics</b>	In an industrial context, the art and science of obtaining, producing and distributing material and product in the proper place and proper quantities.
<b>Logistics Service Provider (LSP)</b>	Party providing logistics services, such as warehousing, repacking products, distribution, assembly, sequencing, and cross docking
<b>Lot</b>	A quantity of homogeneous material either manufactured or received.
<b>Master Label</b>	A label used to identify and summarize the contents of a multiple pack or unit load of common items (sharing a single part number), such as a pallet.
<b>Master Production Schedule (MPS)</b>	An aggregation of independent material requirements used as input to the Material Requirements Planning process.
<b>Material Authorization</b>	The amount of material that the customer is authorizing a Supplier to either purchase (RAW) or produce (FAB). If the customer should cancel this order, the customer will

	pay the Supplier for any material that the customer authorized. It is important for the balance-out process to track the highest value of RAW and FAB authorizations
<b>Material Flow Diagram</b>	A graphic representation of a material flow process.
<b>Material Requirements Planning (MRP)</b>	A time-phased replenishment system to support production and/or manufacturing processes. It is generally identified with material/inventory control processes.
<b>MC</b>	abbreviation, Mercosur
<b>MMOG</b>	Material Management Operations Guideline / Logistics Evaluation; URL-link: <a href="https://www.vda.de/en/Search-Results.html?q=mmog">https://www.vda.de/en/Search-Results.html?q=mmog</a>
<b>MMOG/LE</b>	Materials Management Operations Guidelines/Logistics Evaluation
<b>MRO</b>	abbreviation, Maintenance, Repair, and Operating Supplies – Purchased items not included into the finished product.
<b>MRP</b>	abbreviation, Material Requirements Planning
<b>NAFTA</b>	North American Free Trade Agreement
<b>NAO</b>	abbreviation, North America <a href="#">Market</a> Organization
<b>Non Applicable (N/A)</b>	N/A or n/a is, a common abbreviation for not available or not applicable, used to indicate the deliberate omission of information from a table or listing.
<b>Non Applicable Criterion(NAC)</b>	A criterion that has been identified by the assessor as being not applicable to the organization being assessed.
<b>Obsolescence</b>	Out-of-date material designated for disposal. Obsolete material should be controlled in a manner similar to nonconforming product (e.g. Corrective and Preventive Action taken).
<b>ODETTE</b>	Organization for Data Exchange by Tele Transmission in Europe
<b>OEM</b>	An original equipment manufacturer or OEM is typically a company which uses a component made by a second company in its own product, or sells the product of the second company under its own brand.
<b>Organization</b>	A group of people and facilities with an arrangement of responsibilities, authorities and relationships (e.g., corporation, company, firm, institution or association.)
<b>PAP</b>	abbreviation, Production Part Approval Process
<b>Partial Lot</b>	The amount left over from a production run that is insufficient to fill a container or package to the customer's required ship quantity.
<b>Performance-to-schedule</b>	A performance measurement that represents the percentage of on-time deliveries to the customer.
<b>Perpetual Inventory</b>	1. The inventory as represented in computer records, used to reconcile against physical inventory. 2. A structured approach to taking a physical inventory and then reconciling to computer records, followed where necessary by corrective action. The accuracy of the data is used as a performance metric.
<b>PFMEA</b>	A methodology for assessing the weaknesses of production processes and the potential effects of process failures on the product being produced.
<b>Phase out</b>	The final quantity required by a customer before the item is discontinued from production.

<b>Physical Inventory</b>	Physical inventory is a process where an organization physically counts its entire inventory. A physical inventory may be mandated by financial accounting rules or the tax regulations to place an accurate value on the inventory, or the organization may need to count inventory so component parts or raw materials can be restocked. Organizations may use several different tactics to minimize the disruption caused by physical inventory.
<b>PN</b>	Part number
<b>Poka-yoke</b>	The practice of designing products or processes in a manner that prevents or minimizes the probability of human or mechanical error.
<b>Portal / Web Portal</b>	A web based Portal is an Internet-based solution provided by an organization for sub Suppliers. This solution provides access, with limited human interaction, to the organization's Supply chain related data. For example, the sub Supplier can view as well as download forecast and schedule information and upload or manually enter ASN data. These solutions often provide access or viewing to other supply chain related data such as performance data, invoices, consigned inventory, bar code labels, etc.
<b>PPAP</b>	A generic part qualification process used to determine if all customer requirements are understood by a Supplier and if the process has the potential to produce product meeting requirements on a production basis.
<b>Pre-Carriage</b>	Road transport / Transport from Supplier location to first point of consolidation
<b>Premium Freight</b>	Extra costs or charges incurred additional to contracted delivery. NOTE This can be caused by method, quantity, unscheduled or late deliveries, etc.
<b>Pre-Production</b>	Manufacture or assembly using production parts and processes prior to continuous scheduled output.
<b>Problem Solving</b>	A structured, repeatable process where the root cause(s) of the problem is identified and a corrective or preventive action is implemented.
<b>Procedure</b>	Documented processes that are normally used when work affects more than one function or department of an organization.
<b>Process</b>	The combination of people, equipment, materials, methods, measurement and environment that produce output – a given product or service. A process can involve any aspect of the business. "6M's" is a catch phrase sometimes used to describe a process: Man, Material, Method, Machine, Mother Nature, and Measurement.
<b>Product Part Approval Process (PPAP)</b>	Generic requirements for production part approval for all production and service commodities, including bulk materials. It applies equally whether parts are produced internally or externally by outside Suppliers.
<b>Product Realization</b>	Product realization refers to the interconnected processes that are used throughout all product life cycle phases and result in high quality products. The process of design for both product and process as defined within ISO/TS16949.
<b>Production</b>	The physical process where value added activity takes place.
<b>Production Part</b>	Manufactured at the production site using the production tooling, gaging, process, materials, operators, environment, and process settings, e.g., feeds/speeds/cycle times/pressures/temperatures.
<b>Pull System</b>	Method of ordering where a fixed stock is held for every item and orders are issued for the immediate replacement of any items that are removed from stock.

<b>Quality Management System (QMS)</b>	Quality Management System - ISO/TS16949, in conjunction with ISO9001 defines the approach to quality management for the design and development, production and when relevant, installation and service of automotive related products. ISO/TS16949 represents the new global quality management requirements for the automotive sector and replaces QS9000, VDA6.1, AVSQ and EAQF as automotive requirements.
<b>Quality Operating System (QOS)</b>	QOS is a systematic, disciplined approach that uses standardized tools and methods to manage a business and achieve ever-increasing levels of customer satisfaction
<b>R.O.C.</b>	Republic of China
<b>Receiving Discrepancies</b>	Variance between documented receipts and physical receipts.
<b>Release</b>	An order of material against a blanket purchase order. A release tells the Supplier what, when, how much, and to whom to ship. Some common EDI documents used for releasing are the X12 830, the EDIFACT DELFOR, and the X12 862.
<b>Returnable Container</b>	Shipping container of any material designed to be used for more than one shipment.
<b>RFID</b>	Radio Identification - Systems that read and or write data to RF tags that are present in a radio frequency field projected from RF reading / writing equipment.
<b>Risk Management</b>	The techniques used to minimize and prevent accidental loss to a business.
<b>Root Cause</b>	The assignable source of variation that affects all the individual values of the process output and /or phenomena being studied.
<b>Routings</b>	Information detailing the method of manufacturing of a particular item. It includes (at a minimum) the operations to be performed, the work centers involved and the standards for setup and run time. In some companies, the routing also includes information on tooling, operator skill levels, inspection operations and testing requirements
<b>RRC</b>	Registration Reason Code
<b>Salvage</b>	Disposition for material (i.e., rework, reuse, or recycle).
<b>Schedule</b>	A document initially provided by the customer defining their requirements in terms of product number, delivery quantity and date. This is often translated using an internal scheduling system to create an internal schedule / manufacturing plan.
<b>Scrap Rate</b>	A predictable percentage of raw materials rejected from use in a manufactured product.
<b>Self Assessment</b>	A method by which an organization, company, division (or other) compares their standard practices against a requirement or standard.
<b>Self-Billing</b>	The customer issues the "invoice" (credit note) to the carrier and not the carrier to the customer. It is based on agreed rates between both parties.
<b>Service Parts</b>	Parts used for the repair or maintenance of an assembled product. Also known as: repair parts, spare parts.
<b>Shipment</b>	Door-to-door transportation of goods send from one Supplier/pick up location to one consignee/delivery location. Sometimes the word "Consignment" is used to describe this process as well.
<b>Shipment Identification Number (SID)</b>	1. The control ID number assigned to an ASN transaction. 2. A number used by Customs to identify, in a single number, the shipment crossing the border.

<b>SLC</b>	Small load carrier
<b>Storage Location</b>	The interim location where material is kept in inventory between the receiving dock and point of use.
<b>Strategy</b>	The method by which organizations plan to achieve business objectives.
<b>Sub Supplier</b>	A Supplier to the tier 1, either directly or indirectly.
<b>Supplier</b>	Provider of production materials, or production or service parts, assemblies, heat treating, welding, painting, plating or other finishing services directly to an organization supplying the OEM or other customers.
<b>Supplier Schedules</b>	A process to provide Suppliers with timed customer material requirements information.
<b>Supply Chain</b>	All Suppliers and the vehicle manufacturer that represent the flow of raw materials and finished products that go into the vehicles sold by the vehicle manufacturers.
<b>Supply Chain Management (SCM)</b>	The design, planning, execution, control, and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging world-wide logistics, synchronizing supply with demand, and measuring performance globally.
<b>SWOT Analysis</b>	A tool that identifies the strengths, weaknesses, opportunities and threats of an organization. Specifically, SWOT is a basic, straightforward model that assesses what an organization can and cannot do as well as its potential opportunities and threats. Once the SWOT is completed, the analysis determines what may assist the firm in accomplishing its objectives, and what obstacles must be overcome or minimized to achieve desired results.
<b>T1</b>	Transitdocument
<b>Third Party</b>	A service provider that interfaces between the Supplier and customer to modify the packaging and/or provide a value added process to the product.
<b>Throughput Time</b>	The elapsed time from when material starts being used in a process until the product is finished, either through a plant or through a production network.
<b>Tier</b>	The level of Supplier (organization) in relationship to the original equipment manufacturer final assembly plant.
<b>Tier 1...n</b>	Suppliers are, at times, referred to as Tier n Suppliers, where n is a number from 1 to 3 and represents the closeness of the Supplier to the vehicle manufacturer when tracking the supply of parts.
<b>Transit Time</b>	The elapsed time from shipping dock to receiving dock.
<b>TREAD</b>	The TREAD Act was enacted on November 1, 2000, as a direct consequence of hearings before the Committee on Energy and Commerce on the safety of tires and related matters.
<b>Trunkload</b>	Transport (road) between x-dock and final customer (destination)
<b>Value Added</b>	Activities or operations for which a customer would be willing to pay, if given the option.
<b>VAT ID</b>	value added tax identification
<b>VDA</b>	abbreviation, Verband der Automobilindustrie (German Automobile Industry Association)
<b>Vendor Managed Inventory</b>	The practice of customers making Suppliers responsible for determining order size and timing, usually based on receipt of inventory data. Its goal is to increase inventory turns and reduce stock outs.

<b>Verifying Assessor</b>	An individual or third party who confirms that the assessment has been correctly conducted by the assessor and the results are a true reflection of the status of the organization.
<b>Vision</b>	The target for the organization, e.g. what/where you want the organization to be.
<b>Visual Management</b>	The use of signs, colors, symbols, lights that are readily apparent and can be easily understood. This information can be used to identify, instruct, or indicate that normal or abnormal conditions exist and that action may be required. Good visual management needs no interpretation and provokes a reaction.
<b>Waste</b>	To use, consume, spend, or expend thoughtlessly or carelessly.
<b>Way bill, UIC</b>	The waybill is a detailed document consisting of instructions relating to the shipment of a consignment of goods. Its issued by a carrier.
<b>Window Time</b>	The time agreed to by the customer and Supplier for the loading of outbound conveyance or unloading of inbound conveyance.
<b>WIP</b>	abbreviation, Work in Process
<b>Work in Process (WIP)</b>	Any product on which value added activity has taken place but the product is not yet in its finished form.
<b>Workplace Organization (5C/5S)</b>	A Five-step technique used to stabilize, maintain, and improve the safest and best work environment. The technique aims at separating the essential from the non-essential and at designating specific locations for all essential items within the work area using signs, colors, lines and symbols (see also Visual Management).
<b>X-Dock</b>	Location (Warehouse) which is used to transload shipments from one truck to another. Other term used : HUB

Table 4: Glossary