

Supplier Logistics Manual

BENTELER Automotive Logistic Requirements



Version: 1.25
Date: 05-29-2019

Content:

1	Preamble	4
2	Scheduling Requirements	6
2.1	Delivery Releases	6
2.2	Production and Material Releases	6
2.3	Consignment.....	7
2.4	Phase out management	7
3	Exchange of Information and Data.....	8
3.1	Electronical Data Interchange (EDI).....	8
3.2	Message Type	8
4	Transport Requirement	9
4.1	Routing Instruction.....	9
4.2	<i>Premium Freight / Expedites / Special Transport</i>	9
4.3	Labelling	9
4.4	Loading	10
4.5	Documents.....	10
4.6	Securing of goods.....	11
4.7	ASN information.....	11
5	General Customs Requirements, Supplier Declaration, Preferential Movement Certificates.....	11
5.1	Deliveries to BENTELER Locations	11
5.2	Origin of Goods	11
5.2.1	Deliveries from Suppliers within the European Union (EU).....	11
5.2.2	Deliveries from Suppliers in third countries with a Preferential Customs Agreement.....	11
5.3	Required documents from the Supplier	12
5.3.1	Invoices and packing lists	12
5.4	Export Control.....	12
5.5	Country-specific Import Requirements	13
5.5.1	The People's Republic of China	13
5.5.1.1	Invoice requirements	13
5.5.1.2	Packing List Requirements	14
5.5.1.3	Packaging Declaration	15
5.5.1.4	HAWB/ HBL.....	15
5.5.1.5	Country of Origin Labelling on Physical Goods.....	16
5.5.2	Russian Federation	16
5.5.2.1	Invoice and packing list requirements.....	16
5.5.2.2	Technical documents.....	16
5.5.2.3	Safety Certificate	16
5.5.2.4	Date of Manufacture	17

5.5.3	North America.....	17
5.5.3.1	Air	17
5.5.3.2	Ocean/ Vessel.....	17
5.5.3.3	Invoice Requirements.....	17
5.5.4	Mexico	18
5.5.4.1	Invoice Requirements.....	18
5.5.4.2	Mill Certificate for Steel.....	18
5.5.5	Brazil.....	19
5.5.5.1	Invoice Requirements.....	19
6	Packaging.....	20
6.1	General requirements for packaging	20
6.1.1	Design.....	20
6.1.2	Management of containers	20
6.2	Packaging Costs.....	21
6.3	Disposable/ Oversea packaging.....	21
6.4	Specific packaging requirements.....	21
7	Logistics Quality	22
7.1	Supplier Self-Assessment Evaluation	22
7.2	General Supplier Communication & Support	22
7.3	Logistics Complaints.....	22
8	Traceability	24
9	Supplier Contingency Plan	24
10	Plant Specific Requirements	25
11	Logistics Contacts	26
12	Glossary	27
13	List of Appendices	37

Benteler Standard: Supplier Logistics Manual



BS.SCM.023

Edition: 1.26
Replaces: 1.25 / 01.09.2016

Compiled by: G_SCO Dierkes-Leifeld	Compiled on: 29.05.2019	Released by: G_SCM Ajermou	Released on: 29.05.2019
Scope of Application: BAT		Reference to global processes:	

Revision note for this issue: Update of SCM contents, especially Material Planning and schedule horizons

(If a Benteler Standard is changed, the number of the edition increases and the date of release has to be updated. If you have changes from the original or the revised document, please outline those changes in italics and blue font. If you have revised the entire document no change in font/colour is necessary.)

1 Preamble

BENTELER Automotive 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 between this document and the purchase contract and/or agreed terms and conditions, the purchase contract and/or the agreed terms and conditions shall take precedence.

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, which can be found in the appendices. Please refer to the listing of the documents under each section in figure 1 for further details.

BS_Benteler Standard template.dot / 10.2017 File: BS.SCM.023 Supplier logistics manual.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 37
--	---	---------------

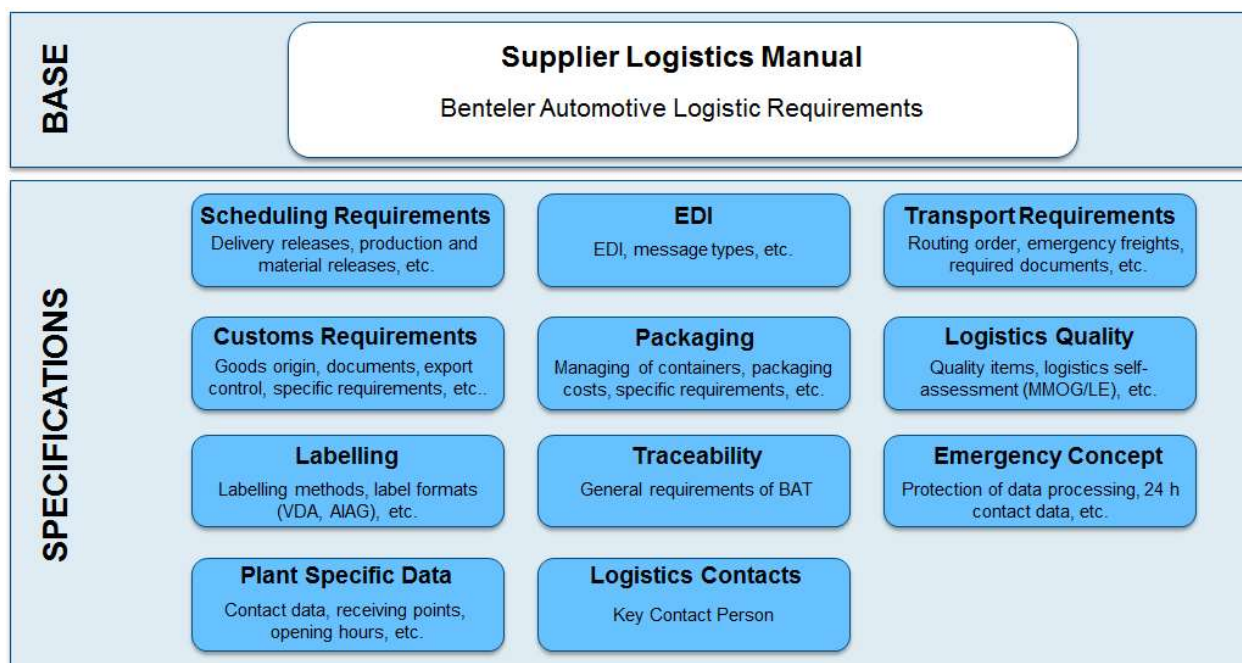


Figure 1: Overview of related logistics contents

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

BENTELER commits to take possession of material parts for which releases have been agreed.

Unless otherwise agreed, the delivery schedule shall contain 2 weeks of finished parts production and 2 weeks of raw material release. The maximum acceptable frozen zone (the time in which no further adjustments can be made by Benteler to the Schedule) is 2 weeks excluding the transport leadtime.

Sub-commodity	region	frozen period	frozen flex (+/-15%)
Press parts	EU	1 week	2 weeks
Connecting elements	EU	1 week	2 weeks
AL - extrusion	EU	1 week	2 weeks
Stainless steel	EU	1 week	2 weeks
Carbon tubes	EU	1 week	2 weeks
Serial services	EU	1 week	3 weeks
Press parts	AP	1 week	2 weeks
Connecting elements	AP	1 week	2 weeks
AL - extrusion	AP	1 week	3 weeks
Stainless steel tubes	AP	1 week	3 weeks
Carbon tubes	AP	1 week	3 weeks
Serial services	AP	1 week	3 weeks
Press parts	US	1 week	2 weeks

Connecting elements	US	1 week	2 weeks
AL - extrusion	US	1 week	2 weeks
Stainless steel	US	1 week	2 weeks
Carbon tubes	US	1 week	2 weeks
Serial services	US	1 week	3 weeks
Press parts	MX	1 week	2 weeks
Connecting elements	MX	1 week	2 weeks
AL - extrusion	MX	1 week	2 weeks
Stainless steel	MX	1 week	2 weeks
Carbon tubes	MX	1 week	2 weeks
Serial services	MX	1 week	3 weeks
Press parts	MC	1 week	2 weeks
Connecting elements	MC	1 week	2 weeks
AL - extrusion	MC	n/a	2 weeks
Stainless steel	MC	1 week	2 weeks
Carbon tubes	MC	1 week	2 weeks
Serial services	MC	1 weeks	3 weeks
Castings	All	1 week	2 weeks
Forgings	All	1 week	2 weeks
Module Components	All	1 week	2 weeks
Exhaust components	All	1 week	2 weeks
Electrical systems	All	1 week	2 weeks
Rubber metal	All	1 week	2 weeks
Rubber Plastics	All	1 week	2 weeks
Ball joints	All	1 week	2 weeks
Steel	All	1 week	4 weeks

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 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.

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.

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.

There is a list of appendices in chapter 14 that provides more information about the exchange of information and data.

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 14.

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 Automotive plant in the following regions:

No	Region	Standard	Link
1	Europe / South Africa / Mercosur / Asia Pacific	VDA	VDA 4902 Version 4.0 2012.pdf
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 Within 15 minutes after departure.

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 , 3rd 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:

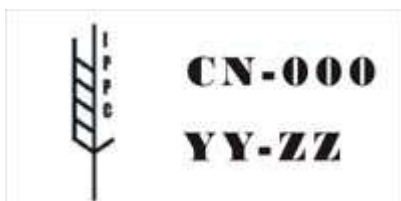


Figure 2: IPPC – Label

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. The certification format can refer to appendix 14.

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

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.)

There is a list of appendices in chapter 14 that provide more information about general customs requirements.

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 (PIT) (see appendix).

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 overseas packaging or disposable packaging must follow the BENTELER disposable / overseas packaging guideline. The corrosion protection of the supplied parts must form part of the disposable packaging concept.

There is a list of appendices in chapter 14 that provides more information about overseas packaging.

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.

There is a list of appendices in chapter 14 that provides more information about Packaging.

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 Supplier Self-Assessment Evaluation

The Supplier will conduct the Global MMOG/LE self-assessment on a yearly basis and submit the result to BENTELER on request. The Supplier will always use the current valid version (see: www.odette.org). The purpose of the self-assessment is to inspect logistical processes or systems for weaknesses, to analyze their root causes and to identify areas of improvement.

This self-assessment is subject to an onsite evaluation by BENTELER or has to be sent if requested.

7.2 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.

7.3 Logistics Complaints

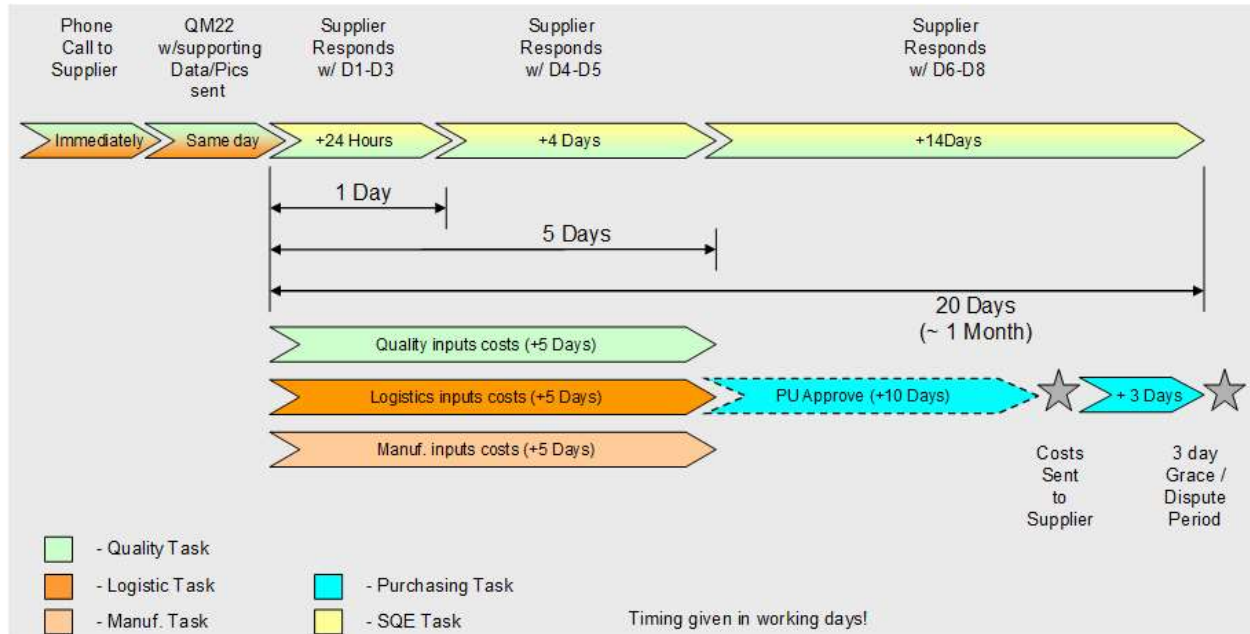
If the Supplier's logistics quality does not meet the requirements, a claim for related fees and penalties will be issued by BENTELER. These are assigned accordingly and invoiced to the Supplier. Please see appendix for further details on the following topics:

- Documentation / Sampling
- Delivery / Transport
- Packaging
- Labelling

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 have to provide an 8D report.

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



There is a list of appendices in chapter 14 that provides more information about Logistics Quality.

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 electronical 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:

Supplier:		
Annexes to the Agreement		
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

There is a list of appendices in chapter 14 that provides more information about 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.

There is a list of appendices in chapter 14 that provides more information about Logistics Contacts.

12 Glossary

Term	Definition
830	Planning Schedule with Release Capability Transaction Set - ASC X12 standard for the Planning Schedule
856	Ship /Notice /Manifest Transaction Set - ASC X12 standard for the Advanced Ship Notice (ASN)
862	Shipping Schedule Transaction Set - ASC X12 standard for the Ship Schedule
866	Production Sequence Transaction Set - ASC X12 standard for the In-sequence Ship Schedule
(JIT)	Just in Time
2PL	Second-party logistics provider, an asset-based carrier that owns the means of transportation
3PL	A third-party logistics provider (abbreviated 3PL , or sometimes TPL) 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
4PL	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.
8D report	Eight Disciplines Problem Solving report
Advanced Product Quality Planning (APQP)	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.
Advanced Quality Planning (AQP)	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.
Advanced Shipping (or Ship) Notice (ASN)	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.
AIAG	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.
AP	Asia Pacific
ASN	Advance Shipping (or Ship) Notice
Assessment	The evaluation of achievement against a specified requirement/standard.
Assessor	The person responsible for conducting the MMOG/LE assessment.
Balance out	The final quantity required by a customer before the item is discontinued from production.

Bar Code / Bar Code Symbology	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.
Benchmarking	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.
Bill of Lading	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
Bill of Lading (master)	A consolidated bill of lading, covering a number of individual bills of lading. Abbreviation: MB/L
Bill of Material (BOM)	Total list of all components and materials required to manufacture and/or assemble a particular item.
BOSLE	Benteler Operating System – Lean Enterprise
Bottleneck	The point in a process that limits total output.
Buffer	A quantity of materials used to protect against process variability.
Bunker Adjustment Factor (BAF)	A freight adjustment factor reflecting the current cost of bunkers.
Calibration	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.
Call-off	See also " Release "
Capacity	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.
CCC	China Compulsory Certification
CCL	Commerce Control List
Changeover (or setup)	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.
CIP	Continuous Improvement Process
CMR	'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
CNPJ	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).
Commodity	A category of similar physical substances or products (e.g., electronics, metals) which are interchangeable.
Container	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.
Contingency	An event that may occur but that is not likely or intended; a possibility.

Continual Improvement	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.
Conveyance	Equipment used to move parts and or containers (sea containers, semi trailers, and rail cars).
Corporate Responsibility	An organization's sense of responsibility towards the impacts of their activities on the public interest including the environment, employment, communities, stakeholders, and society.
Corrective and Preventive Actions	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.
C-TPAT	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.
Cum Start Date	The date that the customer specifies he will begin counting. Used in a cum-based system.
Cum-Based System	A system that uses the cumulative quantity received and cumulative quantity shipped to calculate net quantities required and past due quantities.
Cumulative Quantities (CUMS)	A running total as a count of parts shipped or received in a series or sequence of shipments.
Customer Requirements	The requirements or specifications from the original equipment manufacturer (typically the automobile company).
Cycle Counting	A method of auditing inventory accuracy by counting only specified parts/material on a predetermined schedule
DELFOR	UN/EDIFACT standard for the delivery forecast with release capabilities.
Delivery Order Reference or Number	A number used for tracking an order (represents a quantity ordered and a delivery or ship date).
DELJIT	UN/EDIFACT standard for the Delivery Just-in-Time material release.
Demand Variability	Fluctuations in demand from one release to another for the same period.
Demurrage	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.
DESADV	DESADV EDIFACT EDI message for the Ship Notice Dispatch Advice. Message specifies details for goods dispatched or ready to be shipped.
Direct Marking	An additive or deductive process to establish traceability.
Dunnage	Packaging material that protects the product during transit.
EAR	Export Administration Regulations (U.S. Export Control)
ECCN	Export Control Classification Number
EDI	abbreviation, Electronic Data Interchange

EDIFACT	EDI for Administration, Commerce, and Transport. A set of United Nation rules for electronic data interchange.
Electronic Communication	Conducting business electronically via traditional EDI technologies or online by the internet.
Electronic Data Interchange (EDI)	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).
Enterprise Resource Planning (ERP)	Software that integrates internal and external management information across an entire organization, embracing finance/accounting, manufacturing, sales and service.
ERP	abbreviation, Enterprise Resource Planning
ETA	Estimated time of arrival
ETD	estimated time of departure
EU	abbreviation, European Union
EUR1-docu	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.
ex1, ABD	Export Accompanying Document
FCA	Free Carrier, delivery conditions
FCL	Full Container Load
FIFO	abbreviation, First In First Out
Finished Goods / Parts Inventory	Produced items, ready for transfer to the customer.
First in First Out (FIFO)	Inventory management process ensuring that the first received is the first used.
FSC	abbreviations: Fuel Surcharge. Fuel cost added to the regular agreed transport costs depending on market fluctuation.
G/W	Gross weight
HAWB/HBL	House Air Way Bill, A bill of lading issued by a freight forwarder
HTS	Harmonized Tariff System
INCOTERM	International Commercial Terms
Internal Customer	The next process, operation or function within an organization.
Internal Supplier	The previous process, operation or function within an organization.
INV# number	Invoice number is issued when you used the CCL service
Inventory	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.
Inventory Transactions	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.
IPPC	International Plant Protection Convention
ISO/TS16949	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.
ISPM 15 standard	International Standards For Phytosanitary Measures No. 15
ITIN	Individual Taxpayer Identification Number
JIS	abbreviation, Just In Sequence
Kanban	A pull replenishment system used at a stock point in which a supply batch is ordered based upon a usage of a previous batch.
Key Performance Indicator (KPI)	Financial and non-financial metrics used to help an organization define and measure progress toward organizational goals.
KLT	abbreviation, Kleinladungsträger, Standardized small load carrier
KPI	abbreviation, Key Performance Indicator
Lead Logistics Provider (LSP)	A logistics operator contracted to manage material flow between Supplier and customer. Also referred to as 3rd Party Logistics Provider.
Lead Time	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
Lean	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.
LSP	abbreviation, Lead Logistics Provider
Logistics	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.
Logistics	In an industrial context, the art and science of obtaining, producing and distributing material and product in the proper place and proper quantities.
Logistics Service Provider (LSP)	Party providing logistics services, such as warehousing, repacking products, distribution, assembly, sequencing, and cross docking
Lot	A quantity of homogeneous material either manufactured or received.
Master Label	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.
Master Production Schedule (MPS)	An aggregation of independent material requirements used as input to the Material Requirements Planning process.
Material Authorization	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
Material Flow Diagram	A graphic representation of a material flow process.
Material Requirements Planning (MRP)	A time-phased replenishment system to support production and/or manufacturing processes. It is generally identified with material/inventory control processes.
MC	abbreviation, Mercosur
MMOG	Material Management Operations Guideline / Logistics Evaluation; URL-link: https://www.vda.de/en/Search-Results.html?q=mmog
MMOG/LE	Materials Management Operations Guidelines/Logistics Evaluation
MRO	abbreviation, Maintenance, Repair, and Operating Supplies – Purchased items not included into the finished product.
MRP	abbreviation, Material Requirements Planning
NAFTA	North American Free Trade Agreement
NAO	abbreviation, North America Organization
Non Applicable (N/A)	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.
Non Applicable Criterion(NAC)	A criterion that has been identified by the assessor as being not applicable to the organization being assessed.
Obsolescence	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).
ODETTE	Organization for Data Exchange by Tele Transmission in Europe
OEM	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.
Organization	A group of people and facilities with an arrangement of responsibilities, authorities and relationships (e.g., corporation, company, firm, institution or association.)
PAP	abbreviation, Production Part Approval Process
Partial Lot	The amount left over from a production run that is insufficient to fill a container or package to the customer's required ship quantity.
Performance-to-schedule	A performance measurement that represents the percentage of on-time deliveries to the customer.
Perpetual Inventory	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.
PFMEA	A methodology for assessing the weaknesses of production processes and the potential effects of process failures on the product being produced.
Phase out	The final quantity required by a customer before the item is discontinued from production.

Physical Inventory	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.
PN	Part number
Poka-yoke	The practice of designing products or processes in a manner that prevents or minimizes the probability of human or mechanical error.
Portal / Web Portal	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.
PPAP	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.
Pre-Carriage	Road transport / Transport from Supplier location to first point of consolidation
Premium Freight	Extra costs or charges incurred additional to contracted delivery. NOTE This can be caused by method, quantity, unscheduled or late deliveries, etc.
Pre-Production	Manufacture or assembly using production parts and processes prior to continuous scheduled output.
Problem Solving	A structured, repeatable process where the root cause(s) of the problem is identified and a corrective or preventive action is implemented.
Procedure	Documented processes that are normally used when work affects more than one function or department of an organization.
Process	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.
Product Part Approval Process (PPAP)	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.
Product Realization	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.
Production	The physical process where value added activity takes place.
Production Part	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.
Pull System	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.

Quality Management System (QMS)	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.
Quality Operating System (QOS)	QOS is a systematic, disciplined approach that uses standardized tools and methods to manage a business and achieve ever-increasing levels of customer satisfaction
R.O.C.	Republic of China
Receiving Discrepancies	Variance between documented receipts and physical receipts.
Release	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.
Returnable Container	Shipping container of any material designed to be used for more than one shipment.
RFID	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.
Risk Management	The techniques used to minimize and prevent accidental loss to a business.
Root Cause	The assignable source of variation that affects all the individual values of the process output and /or phenomena being studied.
Routings	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
RRC	Registration Reason Code
Salvage	Disposition for material (i.e., rework, reuse, or recycle).
Schedule	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.
Scrap Rate	A predictable percentage of raw materials rejected from use in a manufactured product.
Self Assessment	A method by which an organization, company, division (or other) compares their standard practices against a requirement or standard.
Self-Billing	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.
Service Parts	Parts used for the repair or maintenance of an assembled product. Also known as: repair parts, spare parts.
Shipment	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.
Shipment Identification Number (SID)	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.

SLC	Small load carrier
Storage Location	The interim location where material is kept in inventory between the receiving dock and point of use.
Strategy	The method by which organizations plan to achieve business objectives.
Sub Supplier	A Supplier to the tier 1, either directly or indirectly.
Supplier	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.
Supplier Schedules	A process to provide Suppliers with timed customer material requirements information.
Supply Chain	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.
Supply Chain Management (SCM)	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.
SWOT Analysis	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.
T1	Transitdocument
Third Party	A service provider that interfaces between the Supplier and customer to modify the packaging and/or provide a value added process to the product.
Throughput Time	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.
Tier	The level of Supplier (organization) in relationship to the original equipment manufacturer final assembly plant.
Tier 1...n	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.
Transit Time	The elapsed time from shipping dock to receiving dock.
TREAD	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.
Trunkload	Transport (road) between x-dock and final customer (destination)
Value Added	Activities or operations for which a customer would be willing to pay, if given the option.
VAT ID	value added tax identification
VDA	abbreviation, Verband der Automobilindustrie (German Automobile Industry Association)
Vendor Managed Inventory	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.

Verifying Assessor	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.
Vision	The target for the organization, e.g. what/where you want the organization to be.
Visual Management	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.
Waste	To use, consume, spend, or expend thoughtlessly or carelessly.
Way bill, UIC	The waybill is a detailed document consisting of instructions relating to the shipment of a consignment of goods. Its issued by a carrier.
Window Time	The time agreed to by the customer and Supplier for the loading of outbound conveyance or unloading of inbound conveyance.
WIP	abbreviation, Work in Process
Work in Process (WIP)	Any product on which value added activity has taken place but the product is not yet in its finished form.
Workplace Organization (5C/5S)	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).
X-Dock	Location (Warehouse) which is used to transload shipments from one truck to another. Other term used : HUB

Table 4: Glossary

13 List of Appendices

Chapter	Appendix	Link
3 Exchange of Information and Data	EDI- BENTELER Group Parameters	<ul style="list-style-type: none"> Parameter_Agreement_Supplier.docx www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/EDI/Parameter_Agreement_Supplier.docx
	Forecast Delivery Instruction (LAB)	<ul style="list-style-type: none"> BENTELER_vda4905.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_vda4905.pdf BENTELER_ASC_X12_830.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_ASC_X12_830.pdf BENTELER_edifact_delfor_d97a_europe.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_edifact_delfor_d97a_europe.pdf BENTELER_EDIFACT_DELFOR_D97a_NAO.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_DELFOR_D97a_NAO.pdf
	Daily Call-Off	<ul style="list-style-type: none"> BENTELER_ASC_X12_862.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_ASC_X12_862.pdf BENTELER_EDIFACT_DELJIT_D97a_NAO.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_DELJIT_D97a_NAO.pdf
	Dispatch Call-Off - Pickup-Process (PUS)	<ul style="list-style-type: none"> BENTELER_EDIFACT_DELJIT_PUS.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_DELJIT_PUS.pdf
	Single Purchase Orders	<ul style="list-style-type: none"> BENTELER_EDIFACT_ORDERS_D00A.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_ORDERS_D00A.pdf
	Delivery Notes and Transport data (ASN)	<ul style="list-style-type: none"> BENTELER_VDA4913.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_VDA4913.pdf BENTELER_EDIFACT_DESADV_D97a_europe.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_DESADV_D97a_europe.pdf BENTELER_EDIFACT_DESADV_D97A_nao.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_DESADV_D97A_nao.pdf BENTELER_ASC_X12_856.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_ASC_X12_856.pdf
	Material movements/Consumption/Stock information	<ul style="list-style-type: none"> BENTELER_EDIFACT_INVRPT_D97A.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_INVRPT_D97A.pdf
	Credit Memos	<ul style="list-style-type: none"> BENTELER_EDIFACT_INVOIC_D00A.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_INVOIC_D00A.pdf
	Technical acknowledgements of receipt	<ul style="list-style-type: none"> BENTELER_EDIFACT_CONTRL_D97A.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_EDIFACT_CONTRL_D97A.pdf BENTELER_ASC_X12_997.pdf http://www.benteler.com/Readonly/user_upload/benteler.com/Purchase/documents/Benteler_ASC_X12_997.pdf
11 Plant Specific Requirements	Supplier Logistics Agreement	https://www.benteler.com/ Area: Global Procurement – Logistic and EDI Specifications
12 Logistics Contacts	Contact data emergencies	https://www.benteler.com/ Area: Global Procurement – Logistic and EDI Specifications

Table 5: List of Appendices