Logistics-Guideline

For a good cooperation with

TENNECO

Table of contents

1.1 Objective

The following Logistic-Guideline is the basis to enhance the trustful cooperation between TENNECO and their suppliers. Beyond that, this document is a legally binding element of the delivery contract between TENNECO and its suppliers.

A consistent material flow between the partners in the supply chain is vital to fulfill the requirements of our customers. Our suppliers are an important element in these efforts. Due to high diversification in the automotive sector, the coordination of the processes of all parts in our supply chain is necessary. In this context, we need a well defined and precise exchange of information and goods between customer and supplier. The TENNECO Logistic-Guideline defines the standards to achieve these goals.

This guideline describes the principles of logistical processes TENNECO is based on. It is valid for all business divisions of TENNECO. Supplements can be found for the several plants as well, which are explaining the local characteristics. Suppliers have to consider them by designing their own supply chain.

Changes of the guideline are valid from the publishing date on our webpage. The current version can be found on the TENNECO Supplier Communications website www.tasupplier.com.

We expect our suppliers to read the guideline very thoroughly to ensure a smooth, undisturbed information- and material flow.

Thank you for your cooperation.

2 Outline of the guideline

The Logistics Guideline is presented in five chapters. Chapter 1 and 2 contain Information about the guideline in general. Chapter 3 defines and explains the global TENNECO standards. The following section (chapter 4) deals with the parameters of the different regions, whereas plant-specific details for Edenkoben are described in chapter 5.

Global requirements – Chapter 3

TENNECO has basic rules, which are valid for all plants. These standards involve the delivery, information exchange, organisational elements regarding pre-series and after market, developing of an emergencey action plan and environment protection.

Regional requirements – Chapter 4

Regional standards are concerning economical areas like the European Union. Chapter 4 deals with specific parameters in different regions.

Plant specific requirements – Chapter 5

The requirements of different TENNECO plants are explained in chapter 5, e.g. opening hours, offloading possibilities and contacts.

3 Global requirements

3.1 RFQ process, logistics information and costs break down

For all quotes, DDP prices (Inco 2010) are mandatory. The DDP price has to include all relevant logistics, handling and packaging costs. Please use the standard logistics costs break down sheet under http://tspinfo.tenneco.com/SupplierManual/2014-07-18 - inbound logistics cost break down for suppliers.xls or from you responsible TENNECO buyer. All logistics processes are designed or have to be released by Tenneco.

3.2 Required structures for information exchange

A standardized information flow is essential for a professional cooperation between supplier and customer. The following rules have been defined from TENNECO in order to avoid problems and or misunderstandings between us and our suppliers.:

1. Obligation to give status information

   A request about status or tracking information must be responded to on the same day. Requests marked as “urgent”, e.g. because of a shortage of materials, have to be answered within one hour. If the supplier is not able to give the expected answer, he has to transfer the current status.

2. Definition of contacts

   Due to a non-stop manufacturing process at TENNECO it is very important for us to stay in contact with our customers continuously. Contacts, their representatives and their supervisor have to be named with their full name, telephone number, mobile number and e-mail address.

3. Duty for self-indictment

   If delivery problems do occur, the supplier has to inform the involved contact at TENNECO immediately.

4. Notification of changes

   All changes regarding the production or shipping location have to be approved in written form by TENNECO. The modifications have to be communicated at least 12 weeks prior to taking effect to the departments of Material Management,

Purchasing, Dispatch, Quality Assurance and Logistics. If TENNECO accepts the changes, the supplier has to consider times for pre-series productions and audits for the new location. Additionally, the parts have to run through the TENNECO Production Part Approval Process. It is not allowed to charge any of the rising costs caused by the changes to TENNECO.

If there are any IT changes (e.g. system change, release change) with relevance for logistics, the supplier has to inform the TENNECO Material Management at least 12 weeks in advance about the new system, launching date and possible impact to the supply chain. All organizational changes with an impact on logistics have to be announced immediately.

3.3 General requirements for delivery

1. All delivery dates are compulsory. Depending on the incoterms (see chap. 3.7.2), the time of delivery at TENNECO or the supplier's dispatch time is relevant.

2. TENNECO is not obliged to accept parts which were delivered too early.

3. Damaged goods or broken handling units can be rejected from TENNECO.

4. Upcoming delivery costs due to premium freights have to be paid in relation to the polluter pays principle. If premium freight is caused by the supplier, the extra costs have to be paid by the supplier. TENNECO is recording every premium freight, additional costs will be charged to the supplier quarterly. In case of a premium freight the dispatcher is going to inform the relevant supplier. The transportation company that should be used will then be selected together.

5. The supplier has to take care of the completeness of all delivery documents and the electronic data submitted.

6. The supplier has to be able to give tracking information among the entire supply chain. Beside his own availability, this also includes the availability of the carrier, e.g. via telephone.

7. The receiving department is authorized to reject over-deliveries or to store them on supplier's costs.

3.4 Logistics Audit

Beside quality audits, TENNECO reserves the right to run logistic audits to verify and assess the logistic systems, including compliance with all logistical requirements of this guideline. All logistical processes will be observed, including e.g. warehousing, packaging, data transfer, etc. The purpose of the logistics audit is a continuous improvement in quality, performance, flexibility and cooperation. Alternatively TENNECO can ask for a self auditing of the supplier. This has to be conducted on the basis of the globally valid MMOG/LE questionnaire published by AIAG and ODETTE/VDA.

If Suppliers are able to fulfill the entire requirements of the logistics guideline providing services and high quality at a competitive price level, they will be preferred for ongoing orders and new products.

3.5 Sending and receiving data

Data between TENNECO and the supplier are transferred via EDI (Electronic Data Exchange) and / or SNC. The data exchange is essential for working efficiently and is a main aspect of the supplier selection process. The supplier is obliged to offer both options - the exchange via EDI and via SNC. The below listed assumptions have to be solved by the supplier.

3.5.1 Electronic Data Exchange

TENNECO uses Data exchange to send and receive information, e.g. delivery schedule, ASN's (Advanced Shipping Notice), notifications etc. This allows all involved parties to integrate the data into their ERP systems without manual converting. Please consider that Data Exchange via EDI is preferred.

3.5.2 Supply Network Communication (SNC)

SNC is an internet application of TENNECO. This way of data exchange only requires a connection to the internet.

The data is constantly synchronized between the TENNECO ERP System and the SNC platform, so the supplier always receive the latest forecast and the delivery schedule of the concerned plant. The delivery date (mentioned in call offs and delivery schedules) corresponded to the date of arrival at the Tenneco plant. At this time the material has to be available at TENNECO's incoming goods area. Depending on the plant, Kanban or SMI (**S**upplier **M**anaged **I**nventory) systems are activated. In this case, the supplier has the possibility to get a view on the relevant plant stock.

In return, TENNECO receives ASNs. The supplier is obliged to enter the data immediately after loading the outgoing goods into SNC.

If ASN's are not submitted, the following failures could occur:

- orders could be released twice
- additional coordination effort for the material managers
- the incoming goods department has to process the ASN manually
- if the supplier would create the ASN after the arrival of the goods at TENNECO, SNC would have inconsistent data. To correct this, huge efforts have to be done.

TENNECO reserves the right to pass the charges of these or similar failures to the supplier.

After signing the contract, the supplier gets a SNC training. If desired, TENNECO can offer a refresher course. For further information about SNC see below:

https://tsp.tenneco.com/irj/portal/

3.6 Delivery performance

Changes regarding the delivery have to be approved in written form by the responsible supervisor of TENNECO. If deviations in quantity or delivery date do occur, the supplier receives a DPR (**D**elivery **P**erformance **R**eport). Failures regarding ASN's, delivery documents, labeling, packaging or damages are leading to DPR's as well. The DPR's are automatically submitted to the supplier via Supply Web. Furthermore, they will be regarded as an element of the suppliers rating.

Depending on the DPR, TENNECO can demand an 8D report. It is the supplier's responsibility to submit the report to TENNECO. As an effect, the supplier shows his corrective actions and the supplier rating will be updated.

http://suppliermanual.tenneco.com/ (template for the 8D report)

3.7 Delivery documents and labeling

The delivery documents and labels have to be conformed to the norm of every respective country. TENNECO reserves the right to reject the delivery or to pass on charges, which are resulting from improperly created documents. Additionally, reclamations will be taken

into account for the delivery performance record. All information on the delivery documents have to match with the delivered goods. A modification of any document in written form is prohibited. All documents either have to be written in the language of the respective country or in English. The applicable standards are defined in the plant-specific requirements (see chap. 5).

3.7.1 Label

The label serves the clear identification of each box/container. The supplier has to tag every packaging unit (master label) and every box/container (single label). By tagging the box/container the supplier has to consider that (independent from environmental influences or transport strains) the label has to be readable.

The Label has to be tagged on the label holder of the box/container. If necessary, the labels have to be fixed with glue dots. If the box/containercarrier doesn't have a label holder, the label has to be fixed with taped dots on each corner of the label. The dots should not cover up the writing or the barcode and have to be removable without any residues. Adhesive labels are prohibited for returnable packagings.

- Standard carriers (1200 mm x 800 mm) have to be tagged on the short side, right on top.
- In case of lattice boxes, the sidegate is on the left-hand side.

TENNECO offers a possibility to create labels and other delivery documents via SNC.

3.7.2 Delivery note

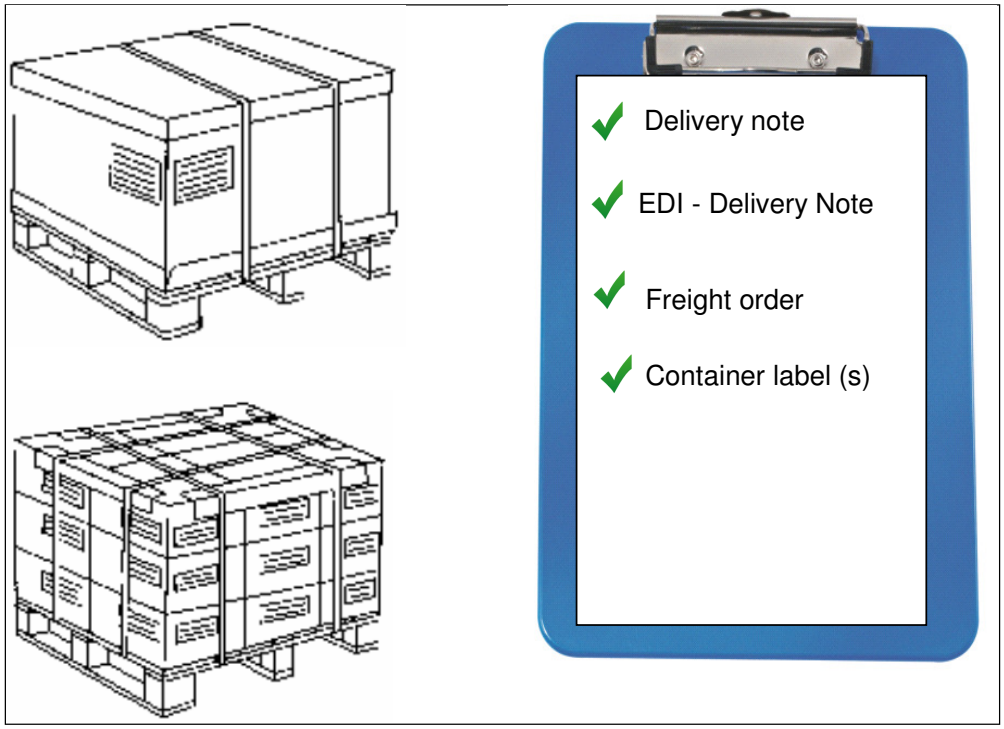
Every supplier is responsible to create the delivery note due to the valid standards. It is vital to hand over the delivery notes to the incoming goods department before unloading the truck. If the transport is executed by a carrier, a copy of the delivery note has to be fixed on the goods.

3.7.3 EDI shipping document

The EDI delivery note summarizes the essential information of a delivery. In case a delivery contains several delivery notes, EDI helps you to get an overview of the details of the delivery.

3.7.4 Shipping order

If the transport is executed by a carrier, a freight order is required.



Picture 2 – Required documents and labeling of the goods

3.8 Terms of delivery

The terms of delivery (defined in the contract between TENNECO and its suppliers) are compulsory. All duties of the suppliers regarding the responsibility of the transport, loading and unloading, freight costs and costs for customs duties are based on the incoterms 2010 (or alternative incoterms 2000).

3.8.1 Free carrier at named place (FCA)

If the term of delivery is FCA, all freight costs will be paid by TENNECO. The supplier is responsible for loading the carrier chosen from TENNECO in time. Liability is transferred after the carrier has assumed the goods.

3.8.2 Direct Delivery (DDP – Delivered duty paid, or DAP – Delivered at place, formerly DDU)

The supplier is concluding the delivery contract. All costs and all risks will be paid by the supplier up to the point of transfer, which is defined in the contract. TENNECO is authorised to define time slots for the delivery. First, delivery peaks can be reduced and the incoming goods department can optimize its resource planning. Secondly, the carrier has less waiting time so suppliers are able to improve their vehicle planning.

If DAP is appointed in the contract, the supplier pays all costs except everything related to import clearance. If DDP is appointed, the supplier pays all costs.

Before a supplier is commissioned, his performance needs to be certified. Possible criteria are e. g. the condition of his fleet, general reliability, solvency, flexibility and the adherence of environmental regulations. During the cooperation between TENNECO and the supplier, those criteria need to be checked regularly. Furthermore, carrier and supplier need an agreement concerning pick-up times, contacts, customs regulations, extra tours and exception regulations for times of driving bans.

3.9 DOS (Demand Oriented Supply)

TENNECO's inventory targets have to be regarded in relation to delivery frequency and packaging planning. This is why TENNECO is focusing adjusted packaging sizes with three different stock ranges:

A-parts: 1-2 days on hand

B-parts: 2-5 days on hand

C-parts: 5-10 days on hand

Smaller batch sizes have a positive impact on productivity and the turnover rate. Furthermore, changes in production planning and the threat of aging assets decreases.

In case the suppliers would like to exceed the stated inventory range because of scale effects or a transport optimization progress, they have to separate costs for additional service because of an additional consignment storing.

3.10 Packaging guideline

3.10.1 Packaging planning

The responsibility for packaging organization belongs to the supplier. TENNECO has to confirm the packaging before first delivery. For confirmation, the following aspects have to be considered:

- protection against water, pressure and compression
- stackable handling units
- optimized capacity of space inside the handling units
- focusing the off-loading and the picking, the handling of the units has to be as simple as possible
- simple unpacking of the packaging/handling units
- only incombustible materials for packaging are allowed to use
- simplified identification by the use of standard labels

The planning of capacity per unit should always be the delivery on a daily basis. If additional packaging inside the unit is necessary, it's removal has to be considered. Please note: most removal will be on the production line. To ensure a high level of value, the packaging needs to be optimized for removal.

After the planning, packaging tests will be implemented to ensure the product will be without any damages during packing, transport and unpacking. The final packaging and an additional evasive packaging have to be sent to the affected plants for approval. TENNECO is able to demand changes even after approval, e.g. changes in the production line are making it necessary.

3.10.2 Returnable packaging's

Basically returnable containers are provided by the supplier. TENNECO will manage an SAP-account for each supplier to offset returnable packaging's for every plant to display received and issued goods. Monthly, each supplier must transfer his stock of empty packaging units to TENNECO. If Tenneco provides returnable packaging's only the amount of containers needed for transportation will be send to the supplier.

Received goods on the empties account are triggered by a need for empty units via SAP. Every supplier has to contact the concerning TENNECO plant to demand the needed charge box/containers. After shipping, the packaging units will be booked.

Discharge from the empties account will be generated because of deliveries for delivery schedules or empties movements. In any case, the empties have to be listed on the shipping documents to ensure incoming goods transactions and to relieve the empties account. A potential loss of returnable packaging has to be reported to the responsible employee from TENNECO and will be burdened to the supplier. In case of damage, the TENNECO contact decides if a repair is economically reasonable.

In case of Tenneco owned returnable packaging, please refer to our European Packaging Manual that you can find on our Supplier Web Portal : http://tspinfo.tenneco.com/SupplierManual/Packaging manual_EU_July_2014_Final.pdf

3.10.3 Deviations to the agreed packaging

As part of optimizing efforts in logistics and production, different concepts of in-house transport and the provision of goods are used at several TENNECO plants - e.g., the calculations of Kanban Shelves are based on the box size and quantity per box. As a result, deviations of packagings are leading to extra costs because of repacking and rebooking. TENNECO charges resulting expenses to the supplier. Every change of packaging (even in single case) has to be agreed by the concerned plant of TENNECO. After approval, the delivery note needs to be signed with “evasive packaging”.

In the event of the unauthorized use of alternative packaging or the unauthorized use of one-way packaging Tenneco reserves the right according to VerpackV, Chapter II, §4, Section (1) and (2) to invoice the disposale to the supplier or to dispose of it with the next delivery.

3.10.4 Cleanliness of returnable packaging’s

The units have to be returned in a condition which enables an immediate reuse. In case of pollution caused by sand, oil etc, the units have to be cleaned by machine. Furthermore TENNECO will not accept boxes with any residues inside. Old labels have to be removed from the box to prevent a wrong identification by the next use. If costs are resulting because of old labels, TENNECO will charge the costs to the supplier.

3.11 Distinction of parts for pre-series and after market

3.11.1 Pre-series parts / technical changes of the product

Initial samples are products and materials which are produced under serial circumstances with serial equipment. The sampling process for production approval is called initial sample testing, TENNECO uses the expression PPAP (Production Part Approval Process) for this process. Details concerning the announcement, quality standards, changes on purchased parts and changes of the production process can be found under the following link: http://www.tasupplier.com/global_manual.htm

IN general, the initial sample testing should be followed by serial production. All experiences from producing the initial samples should be used to provide information about batch sizes and replenishment times to TENNECO. In consideration for each requirements of the concerned TENNECO plant, a packaging test for serial parts has to be made. The quantity should be oriented on a daily delivery frequency.

Subsequently, the supplier provides a quotation costing (calculation) which is based on serial production. The calculation for serial production includes all measurements to secure the supply chain and includes a cost breakdown about the following price levels (A-B-C-D):

A: Piece price
B: + Packaging
∑ = **FCA Price**

C: + Transport to Edenkoben
∑ = **DAP Price (former DDU)**

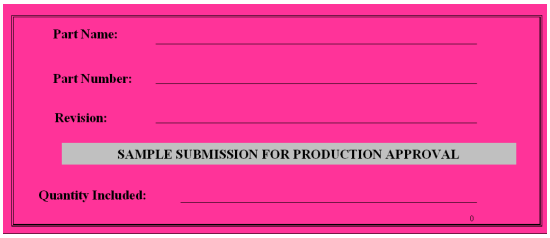
D: + Import clearance
∑ = **DDP Price**

Beyond that, additional agreements between the supplier and TENNECO which enhance the arrangements about the initial sample testing process can be made. This also includes the number of tested samples.

Deliveries with initial samples or samples after technical changes may not be mixed up with serial parts. To minimize this risk, the following aspects have to be taken into account:

- Each handling unit and each packaging unit has to be tagged with a pink rectangle (90mm x 230 mm), including information about part name, TENNECO part number,

revision and quantity. A template is located at http://suppliermanual.tenneco.com/



- The delivery address of the initial samples has to be tagged on the packaging unit.
- The driver gets a copy of the delivery documents including the unloading point, contact information of the supplier and the customer.
- An additional delivery note has to be attached to the initial samples. A comment on the note ("SAMPLE SUBMISSION FOR PRODUCTION APPROVAL") and the order number is required.
- All required documents (the initial sample report and its enclosures) have to be attached to the delivery.
- In case the delivery of the initial samples is incomplete (e.g. documents or parts are missing) TENNECO reserves the right to discard the initial sample testing. In this case, the entire initial sample testing process has to start again.
- In the event one of the following issues do occur, the supplier is obliged to deliver initial samples and to inform TENNECO immediately:
  - change of material or process
  - change of any sub supplier's (including sub supplier's material)
  - change in the method of processing, i.e. manual to automated processes, addition of an alternate processing method
  - change of material supplier, etc.

The delivery of serial parts is permitted after the written affirmation of the initial sample approval. Additional efforts as a result of incomplete sampling documents will be charged to the supplier.

3.11.2 Production of phased-out parts

Each supplier has to guarantee an availability of phased-out and spare parts for at least 15 years after serial production ends. For this purpose, the supplier has to archive the

construction plans and has to ensure the possibility to produce the specific parts. Furthermore, it is necessary the supplier ensures the entire supply chain is able to deliver all needed parts for production. Five years after serial production an equivalent price level is mandatory.

3.12 Contingency plan

The contingency plan has to guarantee a continuous delivery of TENNECO plants without delay, even in case of disruption. The causer is responsible for costs and problem solving. As an element of the offer, the contingency plan contains a list of all possible incidents including all actions needed to assure uninterrupted deliver ability.

Incidents could be

- strike
- tool damage or other technical defects
- quality issues
- capacity bottlenecks
- employee fails
- failure of means of transportation
- IT-systems failure
- Loss of power supply
- failures in processes, relevant for supply
- goods in the wrong packaging unit
- interruptions, caused by sub supplier's
- goods are not ready for shipment in given time
- fire
- etc.

Supplying TENNECO always has top priority. Holding a safety stock, flexibility in production or shifting production orders to other plants are possibilities to prevent supply bottlenecks. In urgent cases the supplier has to implement remedial actions to supply TENNECO. A carrier needs to be defined who will always be able to fulfill premium freights. From a distance of 750 km / 470 miles, air connections have to be selected.

Notice: each supplier has to be able to represent his delivery concept in a quality audit or on demand of TENNECO. In case the supplier's contingency plan is insufficient, TENNECO is authorized to ask for a safety stock.

3.13 Complaint with delivery errors

Delivery within the agreed time, box labels and delivery notes complying to the TENNECO standard just as clean and undamaged packaging units are mandatory for logistics without any interruptions. As a result of the following deviations, substantially extra costs occur to TENNECO. In case the supplier is responsible for any deviations, TENNECO reserves the right to strain the supplier with additional costs to compensate own expenses.

The following faults can cause extra charges to TENNECO:

- line stoppage
- nonconforming / missing notifications
- missing load restraints
- insufficient declarations because of
- missing or multiple labels
- incorrect quantity or weight
- insufficient shipping documents and missing or incomplete clearance papers
- over delivery / under delivery
- delivery too late / too early
- damaged / wasted / wrong packaging
- delivery out of the declared time frame
- delivery of substandard goods (dirt, corrosion, …)

Damages or extra costs because of not regarding the packaging directives will be charged separately to the supplier. In case of line stoppage or comparable failures because of delivery problems from the supplier, he will be charged with the originated costs. More infractions can be appointed in an additional contract.

3.14 Occupational safety, social responsibility and environment protection

TENNECO commits oneself to fulfill every law concerning environment protection, occupational safety or contingency plans and expects the same from its suppliers. Furthermore, the supplier has to mind the laws concerning the handling of employees and is committed to decrease negative impacts.

Suppliers or subcontractors who are present on factory premises of TENNECO have to regard the STVO, STVZO (road traffic act / road traffic licensing regulations) and plant regulations, if not supplemented or changed from TENNECO. Please be aware of warning and information signs.

4 Regional requirements

4.1 Requirements in Europe

4.1.1 General packaging guideline

The packaging guideline (Supplier Packaging Manual – TENNECO Europe) applies to every European TENNECO plant, except separate conditions are made. Homogeneous requirements help to reduce the logistical complexity and costs can be reduced.

In order to follow our packaging requirements, please review our European Supplier packaging manual that you can find on our Supplier Web Portal: http://tspinfo.tenneco.com/SupplierManual/Packaging manual_EU_July_2014_Final.pdf

4.1.2 Requirements for Germany

4.1.2.1 Delivery note handling

As soon as the goods have left the plant, the supplier has to transmit a notification to TENNECO via SNC/EDI. Every carrier receives the delivery documents to hand them to the TENNECO gate. In case the goods are sent with a shipping company, an additional label has to be fixed on the packaging unit.

In case of extensive deliveries, shipping documents have to be forwarded via fax to the respective delivery department. As a result, booking steps can be left out and times for unloading and loading can be reduced. Please check details for delivery with the concerned plant.

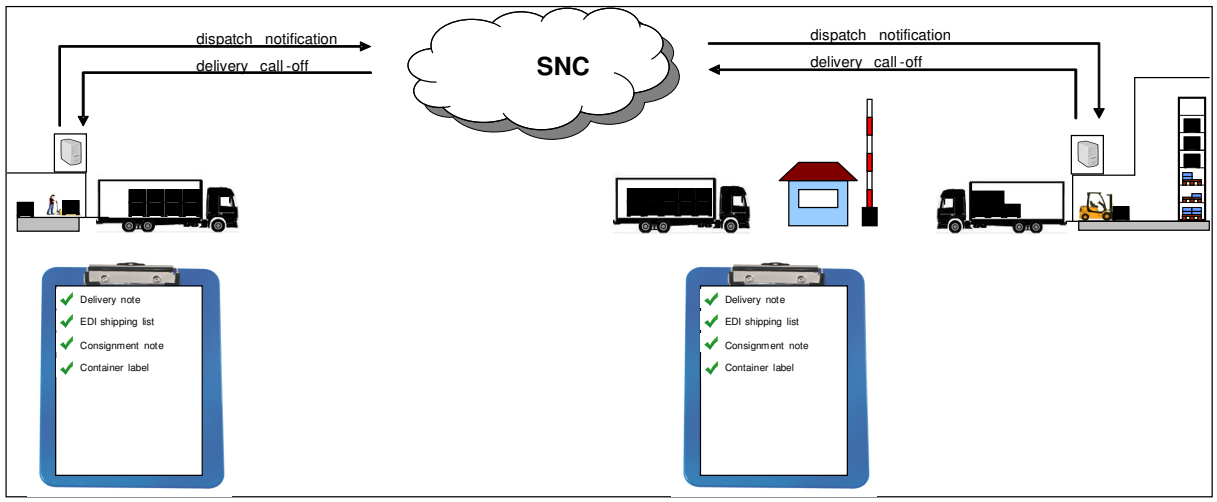


Figure 1 – procedure of a delivery

Every document has to be written in country specific or English language according to the valid standards, containing the type and amount of packaging materials. In case the supplier is working with separate delivery documents for production and packaging materials, the same shipping document number has to be used. Listing the TENNECO order number for packaging units is mandatory. Inappropriate shipping documents will cause additional expenditures for the supplier.

Please find the standards for delivery documents in the chart below:

Type of document	description
VDA 4902	Goods label with barcodes. (VDA-Label), Version 4
Odette goods label	Goods label with barcode, Odette-standard
DIN 4991/4994	Delivery document
VDA 4912	Goods receipt slip
VDA 4922/ DIN 5018	Forwarding order/consignment note

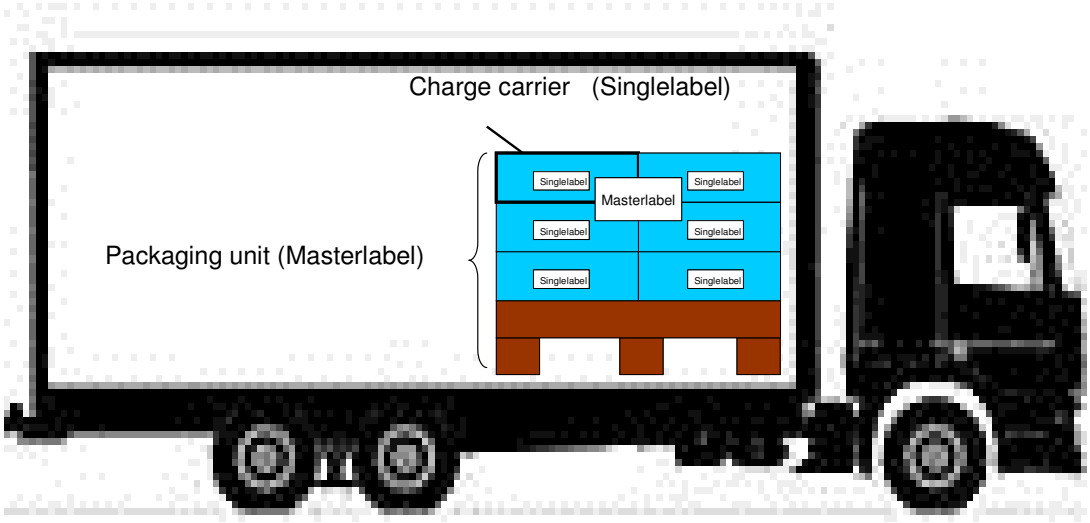
Table 1 – Standards of the delivery documents

4.1.2.2 Material tags

For material tags, the Odette or VDS standard 4902 (version 4) has to be used. Because of the continuous logistical data processing system it is mandatory to use the identical data's and details for material tags and shipping documents.

The packaging units have to be tagged with a master label. If map cases are available, please use them. If not, the label has to be fixed with four taped dots. The dots have to be removable free of residues. Additionally, every packaging unit has to be equipped with single labels.

When returnable containers are used, the shipping documents have to be filled into the designated map cases. In case disposable containers are used, the labels have to be easily readable from outside. Using a paper weight between 130g and 150g for every material tag is compulsory.



In case a packaging unit is getting delivered with several material numbers, the major unit has to be labeled in particular. Use a DIN A4 paper with the title “Mixed Pallet” and fix it easily to read on the major unit. Additional expenses because of variations from this guideline have to be paid by the supplier (see chap. 5.1.9).

Figure 2 – Master label VDA 4902, Version 4

Figure 3 – Single label VDA 4902, Version 4 for KLT (small load carrier)

Nr.	Description	Content	example
1	address	plant and location	TENNECO Edenkoben Luitpoldstraße 83 D-67480 Edenkoben
2	unloading area	unloading place	TLC
3	delivery note number	number from supplier	123456
4	delivery address	contact, zip-code and location	Delivery company, 80331 Munich
5	weight net	weight of goods without package	50 kg
6	weight gross	weight of goods with package in kg	75 kg
7	number of packages	quantity of piece of packages	5
8	customer part number	TENNECO Nummer	308167
9	fill quantity	total filling quantity	100
10	name of delivery	TENNECO designation	Halter
11	supplier part number	Ident number of the charge carriers (Master label) Supplier's designation (Single label)	5000456 137-00-122
12	supplier number	TENNECO's Ident number for the supplier	10000001
13	date	date of delivery	03.01.2011
14	revision version	number whereby TENNECO identifies the state of sampling	
15	package number	number whereby the supplier identifies die piece of packaging	123456
16	batch number	Ident number whereby the supplier identifies a specific lot	

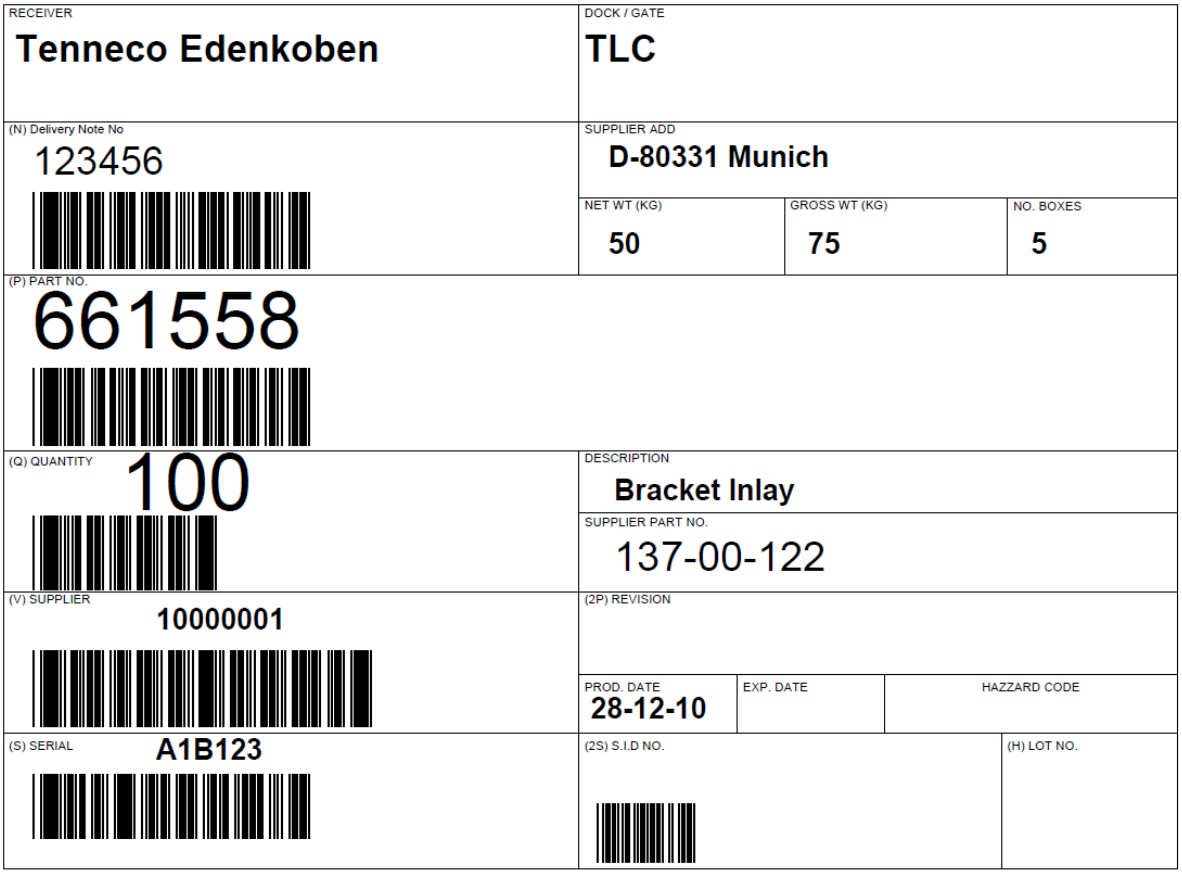


Figure 4 - Odette label

4.1.2.3 Shipping note

The shipping note has to fulfill the German norm DIN 4991 or DIN 4994 (figure 5). Please notice: the carrier has to be declared on the shipping note as well to guarantee a correct discharge.

The following information has to be named on the shipping note:

- sender and delivery address
- TENNECO material and order number
- total quantity
- quantity of each packaging unit per material number (every packaging unit has to be listed separately)
- declaration of every carrier
- prototype deliveries have to be labeled with name and department of the receiver

TENNECO will charge the supplier with the costs of correction due to deviations from this guideline (see chap. 5.1.9).

Tenneco Edenkoben
Lultpoldstraße 83
D-67480 Edenkoben 10000001

Lieferschein
123456
28.12.2010

Lieferfirma
Hauptstraße 1
80331 München 111 222

EUR

12345
28.12.2010

	111 111		Sales department	123	98765

Spedition		X	5 Boxes, Type 43	A1b123	brutto 75 / netto 50

Lultpoldstraße 82
D-67480 Edenkoben

Gate 2

Pos.	Sachnummer	Bezeichnung der Lieferung/Leistung	Menge	Einheit	Menge (Ist)
1	661558	Bracket Inlay 5 Boxes, 20 pieces per box	100	St.	100

Tenneco Ed

Figure 5 – Delivery note DIN 4994

5 Plant specific requirements

5.1 Plant Edenkoben

5.1.1 Delivery address & location plan

TENNECO GmbH
Staatsstraße 1, D-67480 Edenkoben
Tel.: +49 6323 47 – 0
Fax: +49 6323 47 – 2299

Coming from Frankfurt/Main:

1. Take the highway junction Frankfurt/Main, A5 (22 km)
2. highway junction Darmstadt, A67 heading Mannheim (34.6 km)
3. interchange Viernheim, A6 heading Kaiserslautern (18 km)
4. highway junction Frankenthal, A61 heading Ludwigshafen (12.5 km)
5. highway junction Mutterstadt, A65 heading Landau/Karlsruhe (22.6 km)
6. get off the highway at Exit 14 - Edenkoben

Coming from Stuttgart/München (Munich):

1. A8, heading Karlsruhe
2. Karlsruhe exit 45, heading Landau (1,5 km)
3. turn to B10, heading Landau (15 km)
4. A65, heading Landau (32 km)
5. get off the highway at Exit 14 - Edenkoben

To our headquarter Venninger Straße:

1. Follow the signs heading Edenkoben
2. At the 1st circle, take the 3rd exit
3. Keep on straight. After 200 m, the TENNECO HQ EC is located at the corner “In den Seewiesen / Venninger Straße”. Entrance is at Venninger Straße.

To our plant at L516 or to the main entrance Luitpoldstraße:

1. At the 1st circle, take the 2nd exit and go on straight
2. At the 2nd circle, take the 2rd exit and drive up towards parking lot.
3. To reach the entrance Luitpoldstraße keep on going straight and at the next traffic light turn right
4. After 20m, the entrance for Luitpoldstraße is on the right hand side.

5.1.2 Receiving

Incoming trucks will be coordinated by the gate of plant Edenkoben. In response to each kind of delivery, different times to delivery exist.

Receiving area	Function	Delivery days	Opening hours	
			from	until
TLC	Receiving purchase parts	Monday - Friday	06:00	22:00
TLC - SPU	Receiving prototypes	Monday - Friday	07:30	15:30
Overhead storage	Receiving for courier-/parcel services	Monday - Friday	07:00	15:30
Dispatch empties	Empties management	Monday - Friday	06:30	21:00
Dispatch Special unloading	Special unloading	Monday - Friday	06:30	21:00
Research & Development	Receiving pre-production parts	Monday - Friday	07:00	16:00
Production tools	Maintenance	Monday - Friday	07:00	16:00

The TENNECO logistics center (TLC) is responsible for discharge, booking, checking and documenting the deliveries of purchased parts. The overhead storage (“Gemeinkostenlager”) has the same functions for parcel services. Field test products will be accepted by the stock receipt for research and development, production tools will be accepted by the maintenance. The shipping department is coordinating the provision of empties.

As seen in the table above, the incoming times are corresponding with the department’s working time. Deliveries off the working times are leading to additional costs which will be forwarded to the supplier (see chap. 5.1.9). In exceptions, deliveries outside the opening times (such as Saturdays and Sundays) are possible after agreement by a dispatcher from TENNECO.

5.1.3 Delivery notes and Labels for Supplier who send via parcel service

All deliveries where a parcel service is used, has to be sent to the following address:

Tenneco GmbH
Recipient/ Department
Bundesstr. L516 / GMKL
D-67480 Edenkoben

The recipient (name of orderer incl. department) is mandatory. If possible, please note the Tenneco order number on the label.

The delivery note has to contain at least the following information:

Recipient / Department
Tenneco-Order number
Tenneco Material number

The delivery note must be sent with the delivery and affixed in a clearly visible position in a document pouch on the front or side of the package.

If deviations in this process occurs, Tenneco will charge the supplier with the resulting costs in accordance with chapter 7. Additionally delayed invoice payments due to missing information will occur.

5.1.4 Truck discharge in the field of purchase parts

The ramps from TLC Edenkoben are designed for discharge on the rear side which has to be considered while loading. Lateral discharge will only be made in exceptional cases because of higher effort for the TLC. Additional costs resulting from the higher effort will be transferred to the supplier (see chap. 5.1.9).

5.1.5 Delivery control

The incoming goods department is proofing parts in random concerning quantity and identity. In case wrong parts are delivered or parts are obviously damaged, TENNECO is not in bound to accept them. In case too many parts are delivered, the difference of parts will either be rejected or stored at the expense of the supplier. TENNECO is committing themselves to display found damages to the supplier within an appropriate time. No further responsibilities for inspection exists according to § 377 HGB. To this extent the supplier refuses the objection to delayed notification of defects.

5.1.6 Delivery window

For receiving goods, TENNECO is working with time windows for delivery, every supplier receives his own time frame. This time frame help to optimise the use of our loading ramps, our human resources and improves the planning because of less waiting time. Every supplier has to register himself at least 30min before his time frame starts to ensure enough time for necessary bookings.

Please be aware the time frames are mostly limited (1h for standard deliveries). In case a supplier is delivering several times in the same time frame, discharge on time can not be guaranteed. The same applies for not correctly charged deliveries if discharge above the ramp is not possible. In case the delivery is off the assigned time frame, the driver receives the next possible time for discharge.

5.1.7 Sequence of receiving

The procedure is as follows:

1. The supplier parks his truck on the supplier park area (state road L516)
2. The truck driver has to register his arrival on the gate (Main gate, state road L516) and hands over the delivery documents
3. The gate employee transfers the documents to the receiving and conducts the required entries in SAP
4. After appeal, the supplier is allowed to pass the gate.
5. The truck unloading occurs on the rear side. This procedure includes a visual inspection from the external condition of the labels.
6. At least the truck driver is receiving a **signature on his delivery documents.** If the trucker collects goods from the plant Edenkoben, he has to contact the gate again.

5.1.8 Container management

The plant Edenkoben registers every movement of empty boxes on a relevant empties account. These accounts provide information about the current stock of empty boxes to each supplier. Ordering empties happens in coordination with the responsible employee from the empty container management via Email. This Email contains the amount, the type of container and the delivery date. Because of the administrative progresses, the order has to be placed at least one week before.

Once a year (at the end of October) an inventory has to be made by every supplier. Differences between the supplier's and Tenneco's account has to be balanced by the supplier within 4 weeks. After those 4 weeks, claims can not be accepted any longer. TENNECO reserves the right to charge the differences to the supplier.

5.1.9 Delayed delivery

When problems in delivery occur, the responsible buyer has to be informed immediately. In this case, the supplier has to name the following appointment, the reason for drop out and remedial actions. Contacts from TENNECO are available to the supplier (see list below).

Function	Name	Telephone number	E-Mail
Gate	Central call	+49 6323 47 - 2411	Security.EDE@eu.TENNECO-automotive.com
Receiving	Mr. M. Padschuda	+49 6323 47 - 1973	MPadschuda@tenneco.com
Material disposition	Mrs. Lena Gross	+49 6323 47 - 2465	Lgross@TENNECO.com
Packaging planning	Mr. Armin Hans	+49 6323 47 - 2051	AHans@TENNECO.com
Dispatch	Mr. Joseph Ravenna	+49 6323 47 - 2442	JRavenna@TENNECO.com
IT/Barcode/ DFÜ/EDI	Mr. Stefan Segars	+49 6323 47 - 2899	SSegars@TENNECO.com
Logistics-Manager	Mr. Thorsten Schmidt	+49 6323 47 - 2986	TSchmidt@tenneco.com

5.1.10 Complaints

When differences are noticed, those will be communicated to the supplier. Therefore it is necessary to publish the supplier's organization and the concerning contacts to TENNECO.
In case additional costs will be generated because of delivery problems, these costs will be burdened to the supplier, so-called Z1 – notices. Below you will find a list of error types and related cost rates that will be charged in case of error (error types for suppliers). Additionally, an administration effort will be charged (see additional costs per claim).

Furthermore, supply errors will have an impact to the supplier's ratings and may cause an 8D – report. For more costs details cf. chapter 7.

5.2 Plant Kecskemet

5.2.1 Delivery address

TENNECO Hungary Kft
Daimler út 1,
6000 Kecskemet Hungary

5.2.2 Receiving

Receiving area	Function	Delivery days	Opening hours from	until
General Receiving	Receiving purchase parts	Monday - Friday	0:00	24:00
General Receiving	Receiving purchase parts	Saturday	0:00	6:00
General Receiving	Receiving purchase parts	Sunday	22:00	0:00

5.2.3 Contacts

In case of delivery issues please contact immediately your responsible buyer. When the responsible buyer isn't available or in all other issues, please contact the relevant persons below.

Name	Function	Telephone number	E-Mail
Molnar Szabolcs	Logistics Manager	+36306317035	smolnargabor@tenneco.com

5.3 Plant Zwickau (Tenneco Zwickau GmbH)

5.3.1 Delivery address

S+L Kirchberg Gmbh
Halle 2, Tenneco

Bürgerschachtstrasse

5.3.1 Receiving

Receiving area	Function	Delivery days	Opening hours from	until
General Receiving	Receiving purchase parts	Monday - Friday	5:30	16:30
Truck Arrival Times ICY: 05:30 am to 4:00 pm and External Suppliers: 06 a.m. to 3 p.m.				

5.3.2 Contacts

In case of delivery issues please contact immediately your responsible buyer. Supplier has to inform about possible next deliveries; backorder reasons and defined actions defined.

At Logistics 3PL S&L follwing contacts can be contacted during opening times:

Function	Telephone number	E-Mail
Warehouse Management	+ 49 375303 53244 (Phone)	ext_leitungsl@tenneco.com
Warehouse	+49 375 303 5339237 (FAX)	ext_lagersl@tenneco.com
Containermanagement		ext_behaeltersl@tenneco.com

5.4 Plant Ingolstadt

5.4.1 Delivery address

TENNECO Ingolstadt GmbH
Pascalstr. 7
Halle O Tor 6
85057 Ingolstadt

5.4.2 Receiving

Receiving area	Function	Delivery days	Opening hours from	until
General Receiving	Receiving purchase parts	Monday - Friday	6:00	22:00

5.4.3 Contacts

In case of delivery issues please contact immediately your responsible buyer. When the responsible buyer isn't available or in all other issues, please contact the relevant persons below.

Name	Function	Telephone number	E-Mail
Katja Berger	Logistics Manager	+49 841 89 33804	kberger@tenneco.com

5.5 Plant Poznan

5.5.1 Delivery address

TENNECO Automotive Polska Sp. Z o.o.
ul. Rabowicka 18/2 (VW Poznan Supplier Park)
62-020 Swarzędz

5.5.2 Receiving

Receiving area	Function	Delivery days	Opening hours from	until
General Receiving	Receiving purchase parts	Monday - Friday	6:00	22:00

5.5.3 Contacts

In case of delivery issues please contact immediately your responsible buyer. When the responsible buyer isn't available or in all other issues, please contact the relevant persons below.

Name	Function	Telephone number	E-Mail
Tomasz Buczynski	Logistics Manager	+48 61 664 75 26	tbuczynski@tenneco.com
Piotr Welenc	Plant Manager	+ 48 61 664 7520	PWelenc@Tenneco.com
Teamleader G&R	Gate and Receiving	+48 61 664 7525 (24h)	

5.6 Plant Stanowice

5.6.1 Delivery address

TENNECO Silesia Sp. z o.o.
ul. Przemyslowa 2c
44-203 Rybnik

Loading/Unloading
44-237 Stanowice, ul. Zwycięstwa 12

5.6.2 Contacts

In case of delivery issues please contact immediately your responsible buyer. When the responsible buyer isn't available or in all other issues, please contact the relevant persons below.

Name	Function	Telephone number	E-Mail
Adam Boruta	Inbound warehouse	+48 539 956 154	
Marcin Magiera	Outbound warehouse	+48 600 094 210	

5.7 Plant Togliatty

5.7.1 Delivery address

TENNECO Russia
112 Vokzalnaya
445032 Togliatty

5.7.2 Contacts

In case of delivery issues please contact immediately your responsible buyer. When the responsible buyer isn't available or in all other issues, please contact the relevant persons below.

Name	Function	Telephone number	E-Mail
Alexander Kovalev	Receiving	+7-8482-75-88-80	
Denis Kurylev	Logistics Manager	+7-8482-75-90-27	

5.7.3 Receiving

Receiving area	Function	Delivery days	Opening hours	
			from	until
Receiving International	International	Monday - Friday	18:00	20:00
Receiving National	National	Monday - Friday	7:00	18:00

5.8 Plant Saint Petersburg

5.8.1 Delivery address

TENNECO Russia
198323, Leningradskaya region, MO
Lomonosovsky rayon, Gorskaya volost,
«Oficerskoe selo», block 2, Volkhonskoe
shosse, buiding 4, workshop # 205

5.8.2 Contacts

In case of delivery issues please contact immediately your responsible buyer. When the responsible buyer isn't available or in all other issues, please contact the relevant persons below.

Name	Function	Telephone number	E-Mail
Vadim Nurgaliev	Receiving	+7-812-320-25-57	
Denis Kurylev	Logistics Manager	+7-8482-75-90-27	

5.8.3 Receiving

Receiving area	Function	Delivery days	Opening hours from	until
Receiving International	International	Monday - Friday	18:00	20:00
Receiving National	National	Monday - Friday	7:00	16:00

5.9 Plant Etain

5.9.1 Delivery address

Tenneco Etain SAS
Rue des Fontangues 6
55400 Étain
France
Logistics Manager: Chantal Roy

5.10 Plant Arendal

5.10.1 Delivery address

Tenneco Sverige AB
Arendal, Building ARM
Industrial Park Arendal
40508 Gothenburg
Sweden
Logistics Manager: Johan Leijon

5.11 Plant Hodkovice

5.11.1 Delivery address

Tenneco Monroe Czechia
Rychnovská 383
46342 Hodkovice nad Mohelkou

Logistics Manager: Vaclav Svoboda

5.12 Plant Palmela

5.12.1 Delivery address

Tenneco Portugal Lda.
Tenneco Portugal Lda.
Parque Industrial da AutoEuropa, Quinta da Marquesa
2950 Palmela
Logistics Manager: Ana Paula Varanda Raimundo

5.13 Plant Port Elizabeth

5.13.1 Delivery address

Tenneco Emission Control Proprietary Ltd.
12 Libertas Road, Struandale
6001 Port Elizabeth
Logistics Manager: Ruan Botha

5.14 Plant Poznan

5.14.1 Delivery address

Tenneco Automotive Polska Sp z o.o.
Production Poznan
ul. Rabowicka
62-020 Swarzedz
Logistics Manager: Magdalena Kaletka

5.15 Plant Rybnik

5.15.1 Delivery address

Tenneco Automotive Polska Sp z o.o.
R&D Center and Production
Ul. Przemyslowa 2C
44-203 Rybnik
Logistics Manager: Krzysztof Goszyk

5.16 Plant Rennes

5.16.1 Delivery address

Tenneco Rennes
1 rue de la Pitardière
F-35136 Saint-Jacques-de-la-Lande
General Manager : Jean Marc De Morais

5.17 Plant Tredegar

5.17.1 Delivery address

Tenneco Walker UK Ltd.
Unit 3, Tafarnaubach Industrial Estate, Tafarnaubach,
Tredegar, Gwent NP22
Logistics Manager: Robert O'Neil

5.18 Plant Valencia

5.18.1 Delivery address

Tenneco Automotive Iberica, S.A
Valencia
Calle Alfafar, 46469, Beniparrell, Valencia, Valencia,

General Manager: Carmelo Anaya Barrio

6 Container catalog

Deviations from the catalog below are possible under specific conditions and after consultation with a written confirmation from TENNECO.

SAP	Code	Dimension	Tara [kg]	Group	Picture
5001393	811	300 x 200 x 140 mm	0,6	R-KLT 3215	
5000520	810	*400 x 300 x140 mm*	1,3 Kg	R-KLT 4315	
5001080	809	*400 x 300 x 290 mm*	1,6 Kg	R-KLT 4329	
5001151	808	*600 x 400 x 290 mm*	3,0 Kg	R-KLT 6429	
5002731	865	*600 x 400 x 147 mm*	2,1 Kg	R-KLT 6415	
5003259	63	1200x800 x94	6,1	Plastic cover	
5000403		1240 x 835x 970	85.0	Skeleton	
5003258	62	1200 x 800 x 140	25	Euro pallet	

7 Tenneco Europe nonconformity reason and cost

Fault group 1: Labelling	Code	Einheit / item	Zeit zur Fehlerbehebung / Mistake clarification Time	zusätzliche Kosten / additional costs	Kosten / Costs	Summe / Sum
missing label (Master/Packaging Unit)	LAB01	per Box	0,33		13,86 €	13,86 €
incorrect part number on label	LAB02		0,33		13,86 €	13,86 €
barcode unreadable	LAB03		0,33		13,86 €	13,86 €
other labelling	LAB99		0,50		21,00 €	21,00 €
Fault group 2: Packaging						
damaged box	PAK01	per box	0,75	60 € Reparatur/repair	31,50 €	91,50 €
damaged pallet	PAK02		0,75	5 € Reparatur/repair	31,50 €	36,50 €
damaged packaging	PAK03		0,75		31,50 €	31,50 €
faked or damaged Gitterbox	PAK04		0,75	30 € Reparatur/repair	31,50 €	61,50 €
strapping material (steel instead of plastic)	PAK05		0,25		10,50 €	10,50 €
missing (KLT) pallet lid	PAK06		0,25		10,50 €	10,50 €
packaging incorrect or not listed in packing list	PAK07	per delivery note	0,75		31,50 €	31,50 €
Fault group 3: Delivery note						
missing delivery note	LIE01	per delivery note	0,50		21,00 €	21,00 €
incomplete delivery note / missing or wrong SAP no.	LIE02		0,33		13,86 €	13,86 €
delivery note not in english or german	LIE03		0,50		21,00 €	21,00 €
Reference field in Chep-Portal not or wrong filled	LIE04		0,25		10,50 €	10,50 €
Fault group 4: Loading or unloading vehicle						
others load/unload or unloading on dock not possible a. 3-times stacked b. unloading from the side c. pallets loaded transversely d. Goods not stored in unloading sequence	ENT99	per truck	0,50		21,00 €	21,00 €
Fault group 5: Goods						
goods damaged	WAR01		1,00		42,00 €	42,00 €
Administrative costs per claim						
Quality Department	ADM01	per issue	0,75		31,50 €	31,50 €
Logistics Department	ADM02		1,00		42,00 €	42,00 €
Finance Department	ADM03		0,50		21,00 €	21,00 €
						94,50 €
accounting record working hour	**42,00 €**					

8 Revision

Ausgabe/ Issue	Freigabedatum/ date of release	Bemerkung/ comments
01	13.01.2011	new edition
02	11.02.2011	chapter 3.11 contingency plan inserted
03	21.11.2011	Chapter 3.9.1 packaging planning substantiated
04	02.08.2012	Chapter 5.1.8 contacts updated
05	14.11.2012	Chapter 5.1.1 address changed; chapter 3.9.2 process specified
06	02.08.2013	Chapter 3.4.2. sentences pasted:. "The delivery date (mentioned in call offs and delivery schedules) corresponded to the date of arrival at the Tenneco plant. At this time the material has to be available at TENNECO's incoming goods area."
07	21.3.2014	Chapter 3.9.3 Information about unauthorized usage of packaging included.
08	18.7.2014	New chapter 3.1, 5.2, 5.3, 5.4 and 5.5 included.
09	18.7.2014	Layout updates (no content)
10	19.11.2014	Chapter 5.1.9 table of error costs deleted with reference to new chapter 7
11	19.11.2014	Chapter 7 new included and contact person in chapter 5.1.8. changed.
12	19.11.2014	Chapter 3.10.2 Information about Packaging Manual included.
13	19.11.2014	Chapter 4.1.1. Packaging information deleted and information about „European Supplier packaging manual" included.
14	27.2.2015	New chapter 5.1.3 included and update contacts in chapter 5
15	23.12.2015	Chapter 3.1 New clause "All logistics processes are designed or have to be released by Tenneco."
16	2.5.2016	Chapter 5.11 Changed delivery address, chapter 5.1.2 Opening hours changed, chapter 5.1.9 Contacts changed, chapter 7 rates updated.

17	12.5.2016	Chapter 6, container catalog updated.
18	3.8.2016	Chapter 3.5 Supply Web changed to SNC
19	7.3.2017	Chapter 4.1.2.1 Some wording mistakes fixed