

EDI (Electronic Data Interchange) Implementation Guideline logistics supply chain! Material and empties.

Autoren: Center for Digital Collaboration
Status: Released
Version: 2.0
Datum: 01.04.2023

Versionshistorie:

Version	Date	Author	Comment
1.0	01.01.2022	CDC	Initial Creation
2.0	01.04.2023	CDC	Update

Content

1	General rules	5
1.1	Preamble	5
1.2	Motivation for the document.....	5
1.3	The ideal use of the global formats.....	6
1.4	The Transport order process	6
1.5	The despatch process.....	7
1.6	Tracking Process.....	7
1.7	The receiving process	7
1.8	Der billing process	7
2	Alternatives if a partner is not EDI-capable	8
2.1	Discovery	8
2.2	Web EDI (Applikationen (volkswagen.de)).....	9
2.3	RIO Web TMS (RIO WEB TMS).....	9
2.4	TSB Generator (TSB Generator (volkswagen.de)	9
2.5	Definitions	10
2.6	Overview of the references used	11
2.7	Partner roles used	15
3	Supported processes Material flow	17
3.1	Standard process EDI Communication - Material flow	17
3.2	Special process EDI Communication Supply via commission warehouse	17
3.3	The delivery call-off process for material.....	19
3.3.1	Standard process	19
3.3.2	Special process	19
3.3.2.1	Genuine parts sales direct delivery	19
3.3.2.2	Produktion synchronized Call Off (PAB)	20
3.3.2.3	New Logistics Concept (NLK) – (only used at Chattanooga site).....	20
3.4	The Transport Order process for Material	20
3.4.1	Standard process VDA 4933 T1 Transport order Material	20
3.4.2	Standard process VDA 4933 T3 transport order confirmation Material.....	20
3.5	The despatch process.....	20
3.5.1	Standard process VDA 4987 Despatch Advice	21
3.6	Transport-/shipment tracking	21
3.6.1	Standard process VDA 4945 Transport Status Message Material.....	21

3.7 Receiving Process 22

4 Supported processes empties flow 23

4.1 EDI Communication standard supply mpties 23

4.2 The Order Process 23

4.3 Transport order process 23

4.3.1 Standard prozess 4933 T2 Transport order empties 24

4.3.2 Standard process VDA 4933 T4 Transport order confirmation for empties 24

4.4 Despatch process 24

4.4.1 Standard process (running) 24

4.4.2 Standard process (planned) 24

4.5 Transport status message 25

4.6 Reception process 26

Figures

Figure 1 The ideal use of the global formats 6

Figure 2 Overview Definitions 11

Figure 3 Usage of RFF Qualifier per message type 12

Figure 4 Definitions of RFF Qualifier 14

Figure 5 Overview NAD Qualifier per message 15

Figure 6 Definition of NAD Qualifier 16

Figure 7 Standard process EDI Communication - Material flow 17

Figure 8 Special process EDI Communication Supply via picking warehouse 18

Figure 9 Expected status material transport 21

Figure 10 Most important information for process steering material 22

Figure 11 EDI Communication Flow Empties 23

Figure 12 Expected status empties transport 25

Figure 13 Most important information for process steering empties 26

1 General rules

This chapter of the document describes general rules for process support with EDI messages in the supply chain.

1.1 Preamble

This document and other message-specific guides contain only supplementary information to the VDA recommendations and Odette standards. Therefore, the availability of the relevant VDA recommendations and Odette descriptions is an indispensable prerequisite for the implementation of EDI technology and messages.

VOLKSWAGEN includes all brands and locations belonging to the Volkswagen Group which are connected via the central EDI processing of the Group. Exceptions at the time of publication are e.g. MAN, Volkswagen do Brasil and others. If you have any questions, please contact the EDI support edi-support@volkswagen.de.

1.2 Motivation for the document

The purpose of this document is to present the basic logistics processes and rules of the Volkswagen Group and how they are supported by the relevant VDA recommendations and Odette standards. In this document the contents of the recommendations according to VDA 4901 Basic Terms for Data Exchange in the Supply Chain as well as VDA 5007 Guidelines for Container Management are taken up and adapted to the requirements of the Volkswagen Group. Another concern of this recommendation is to support a generally valid, unambiguous terminology for all partners involved in the context of the Volkswagen Group.

The starting point is always the physical, logistical process that is supported or enabled by electronic message exchange. In the EDI messages, great importance has been attached to ensuring that each process partner receives the necessary information for their process steps in order to optimally support the digitalisation and automation of the processes.

Terms and rules are used as they are in the VDA recommendations on logistics processes and EDI.

The focus is on the commonalities of the various recommendations/messages, as well as their inter-connection. Detailed message definitions, specific fields of application and examples of these are described in detail in the corresponding VDA recommendations and in the published guidelines of the Volkswagen Group.

The explanations contained are based on existing European and international terminology in the automotive industry (Odette and JAIF) in order to be used as globally as possible.

The following figure shows the current status of the implementation of the global VDA message formats based on the process steps in the event-driven supply chain/transport chain.

1.3 The ideal use of the global formats

The following diagram shows the ideal use of the global EDI message formats and their implementation status at Volkswagen. The upper strand represents the supply of empties and the lower strand the supply of materials.

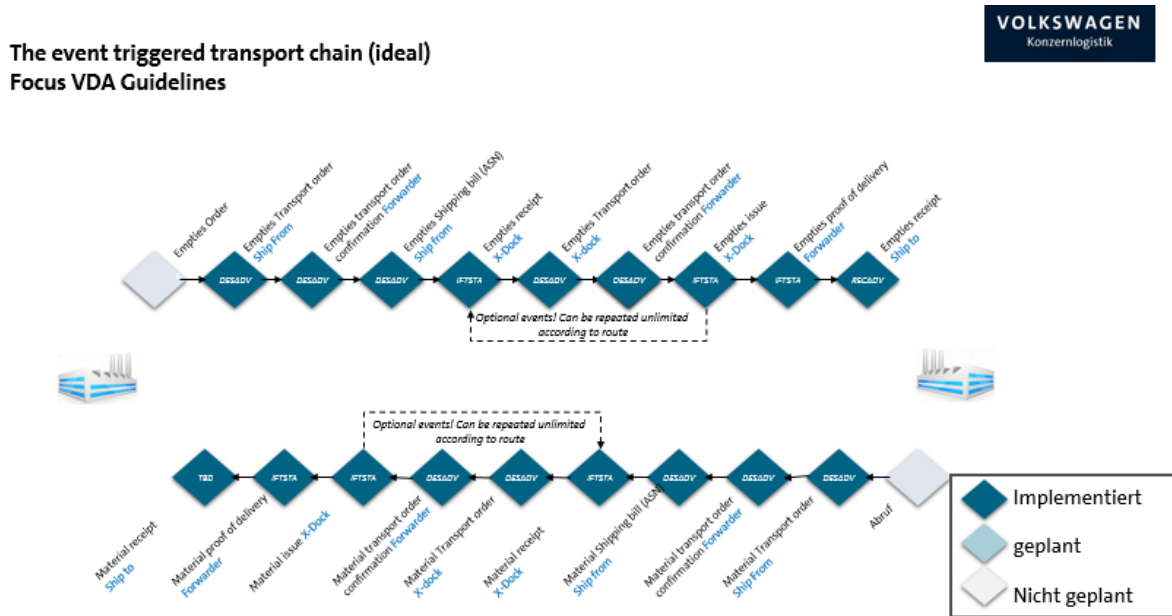


Figure 1 The ideal use of the global formats

1.4 The Transport order process

The transport order process digitises the communication between the consignor (ship from) of the material or the containers and the forwarder. The transport order process for material and empties transports of the Volkswagen Group, which is supported by the message formats of the VDA 4933 series, is a shipment-related (qualified) transport order process. The message format is based on the EDIFACT format DESADV, just like the VDA 4987 Material Despatch Advice or VDA 4943 T2 Empties Despatch Advice created later in the process. This means that all known consignment information down to material level is transmitted at the time of the transport order. The following assumptions apply to the qualified transport order.

1. The transport order is created in relation to the shipment by bundling the goods to be transported (material, empty containers), which are to be taken over from a physical loading point of a Ship from to a physical unloading point of a ship to on a defined date together for transport on a means of transport (truck, wagon, etc.). The capacity of the planned transport (mega-trailer,

wagon, container, etc.) should be taken into account (volume and weight). If the volume/permissible weight of the material/packaging to a consignee exceeds the volume/permissible weight of the means of transport, the material/ packaging must be divided among several VDA 4933 transport orders (consignment split).

2. In principle, it is assumed in all variants of transport concepts that a shipments which has been loaded at the ship from may not be split during the course of the transport chain up to the consignee. If this nevertheless happens in practice, it is a process disturbance which must trigger exception handling.
3. If a transport contains several shipments, a separate transport order must be created for each shipment.

1.5 The despatch process

The standardised shipping process digitises the communication between the sender of the material or empty containers and the recipient of the goods via VDA 4987 Despatch Advice Material and 4943 T2 Despatch Advice Empties. In addition, the specifications for the creation of accompanying documents in VDA 4939 Shipment Note and VDA 4994 Global Transport Label are part of the specifications to be fulfilled by the goods ship from party.

1.6 Tracking Process

the EDI-supported shipment tracking process digitises the communication between the forwarder and the consignee of the goods by the forwarder sending a VDA 4945 transport status message at agreed events..

1.7 The receiving process

The confirmation of receipt for material transports by the consignee is currently not supported by an EDIFACT message in the standard process of Volkswagen AG. Exceptions for special processes in the area of JIS or JIT or commission warehouse are described in the course of the document..

1.8 Der billing process

In the standard billing process, sub-processes are already supported by VDA 4938 Exchange of electronic billing documents. Whether this type of communication can be used for billing must be clarified with the responsible departments when the business relationship is set up.

2 Alternatives if a partner is not EDI-capable

If a partner is not able to process or provide the contractually required EDI messages in his system solutions, the Volkswagen Group offers various portal solutions. Which solution is to be used for which application must be determined in each individual case. The following describes which portal solution supports which standards and which functions in the application.

Possible functions of the standards in the respective portal solution are:

Provisioning: Provisioning (B) means that the partner responsible for providing the EDI message can use Discovery to trigger the creation and sending of the message by editing or entering the relevant data via the user interface and thus control the communication as if he had created it himself.

Processing: Processing (V) means that received messages are processed in the application in order to make the contents usable in the application, on the one hand to support other process steps, or on the other hand to display the data to the user in the application.

Display: Display (A) means that data from received messages from other sources are displayed in the application.

Print: Print (D) means that the documents can be printed from the application according to the specified formats.

2.1 Discovery

DISCOVERY stands for Digital Supply Chain Communication and is a communication platform between suppliers, logistics service providers and the group plants for the inbound process. Discovery supports processes for transport ordering and shipment tracking of material transports between European suppliers and group sites, as well as transports of empties from the group sites to the suppliers.

By entering or changing the relevant data via the user interface by logging on to the application via the ONE KBP, the following formats and functions are supported.

VDA 4984 Call-off material (V,A)

- VDA 4933 T1 Transport Order Material (B, V, A)
- VDA 4933 T2 Transport Order Empties (B, V, A)
- VDA 4933 T3 Transport Order Confirmation Material (V,A)
- VDA 4933 T4 Transport Order Confirmation Empties (V,A)
- VDA 4987 Despatch Advice (B,V,A)
- VDA 4939 Shipping Document (D)
- VDA 4994 Global Transport Label (D)
- VDA 4945 Transport Status Message (V,A)

2.2 WebSCM (Applikationen (volkswagen.de))

WEB EDI is the portal solution to support suppliers who are not EDI capable and are not connected in Discovery.

By entering or changing the relevant data via the user interface by logging on to the application via the ONE KBP, the following formats and functions are supported.

- VDA 4984 Call off (V,A)
- VDA 4987 Despatch Advice (B,V,A)
- VDA 4939 Shipment Document (D)
- VDA 4994 Global Transport Label (D)

2.3 RIO WebTMS (RIO WEB TMS)

WEB TMS is a web-based application in the RIO Cloud Platform and supports non-EDI carriers.

Durch die Eingabe oder Änderung der relevanten Daten über das User Interface durch Anmeldung an der Applikation direkt auf der Rio Plattform werden folgende Formate und Funktionen unterstützt.

- VDA 4933 T1 Transport Order Material (V, A)
- VDA 4933 T2 Transport Order Empties (V, A)
- VDA 4933 T3 Transport Order Confirmation Material (B,V,A)
- VDA 4933 T4 Transport Order Confirmation Empties (B,V,A)
- VDA 4945 Transport Status Message (B,V,A)

2.4 TSB Generator (TSB Generator (volkswagen.de))

The TSB-Generator a software, to read:

- VDA 4987 Despatch Advice (V)*

In order to create the documents

- VDA 4939 Shipment Document(D)
- VDA 4994 Global Transport Label (D)

according to the specifications of the VW Guidelines.

This software is available to suppliers of the Volkswagen Group free of charge.

Data records in the format VDA 4987 - Shipping Notification according to the currently valid Volkswagen Guideline are necessary here in order to be able to print the documents.

The TSB generator can be used under Windows and Linux. However, no support is offered for Linux.

The application can be installed on a stand-alone computer or in the supplier's network. An installable and a portable version, for which no administrator rights are required, are available.

2.5 Definitions

This chapter describes terms that play an important role in the event-driven supply/transport chain.

Term	Beschreibung
Shipment (Consignment)	A shipment refers to the totality of goods that are to be shipped at a specific time from the goods shipper (e.g. supplier's plant) to a specific unloading point of the goods recipient (e.g. customer's plant) on a means of transport (truck, wagon....). Normally, each shipment is identified by a unique reference number, the shipment number (formerly shipment load reference number).. ¹
Transport Loading Unit (TLU)	TLU means the packaging container or simplified loading unit that can be moved individually during transport from the consignor to the consignee. Weather it is a single load container or a bundle it has to be marked with a master label according to VDA 4994 in the material inbound process.
Delivery Note	The delivery note is the classic goods accompanying document. There is no form requirement for the delivery note. Depending on the contractual agreement or the structure of the supplier's ERP system, a delivery note can be created per package or per consignment. This means that a consignment can contain 1 to n delivery notes.
Abladestelle	The unloading point according to the VDA definition represents the physical location at the ship to's premises where the means of transport (truck, wagon, etc.) is unloaded and thus the transport process is terminated. <u>For historical reasons, Volkswagen currently deviates from this industry solution and uses the term "delivery point" in its communication.</u> A changeover to the industry standard is currently in preparation and will be implemented successively from 2022 onwards via new versions of the existing guidelines.
Lagerort	The storage location according to the VDA definition represents the internal location at the ship to where the goods are stored. <u>For historical reasons, Volkswagen currently deviates in part from this industry solution and uses the term unloading point in its communication.</u> A changeover to the industry standard is currently in preparation and will be implemented successively from 2022 onwards via new versions of the existing guidelines.
Transport	A transport means the carriage of one or more shipments by a means of transport.

¹ Quelle: Empfehlung VDA 4901

Term	Beschreibung
Means of transport	Means of transport is the motor vehicle, rail vehicle, aircraft or watercraft used for the transport of goods (and persons). In the context of this specification Means of Transport is a transport device operating with own power and is used for transport of goods. A means of transport moves goods directly (e.g. a vessel, an aircraft, a truck with buildup) Alternatively, it moves one or more transport equipment units which carry the goods, such as trailers or semi trailers. A means of transport shall be uniquely identifiable.
Equipment	A transport equipment unit contains the goods (either bulk load or individual transport handling units). A transport equipment unit cannot move on its own in a controlled fashion. A transport equipment unit shall be uniquely identifiable. Examples: <ul style="list-style-type: none"> ▪ See going 20 or 40 foot container ▪ Swap body ▪ Semi-trailer without buildup (lafett) ▪ Semi-trailer with buildup (box or tarpauline)

Figure 2 Overview Definitions

2.6 Overview of the references used

The messages used are to be seen as information vehicles along the supply chain from the call-off to the transport order process, the dispatch of the goods, the tracking of the shipment to the delivery or receipt at the destination. In order to be able to derive questions in the processing systems, cross-message references are used. The following table contains the references used in the Volkswagen Group and shows in which messages they are used. In addition, the requirements for the respective reference are specified further in the guidelines of the messages and must be observed accordingly.

References	RFF+	4984	4933T1	4933 T3	4987	4945V
DUNS-Number (enhancing NAD.3039)	ANK	O	O	O	O	-
VAT-ID	VA	-	-	-	O	-
Order confirmation (Spare Parts - After Sales)	AAA	-	-	-	O	-
Despatch advice document ID (DESADV)	AAK	O	-	-	BGM	-
Call Of Number	AAN	R	O	O	O	-
Despatch Coll Off Number (relates to JIT-Call Off 4985)	AXA	-	-	-	O	-
Acces Code at Ship To (LKW Control ID)	AAO	-	-	-	-	D
Reference number of the shipment, assigned by the Carrier (Tracking ID)	AVU	-	-	O	-	O
Delivery Note Number	AAU	O	O	-	R	O

Access Code at Ship-from	ABE	-	O	O	-	-
Number of Customs Clearance (e. g. AT-LAS)	ABT	-	O	O	-	O
Transport Number assigned by Authority	AEL	-	-	-	O	O
Loading List Means of Transport / Bordero	AFC	-	-	O	O	D
Transport ID of Ship from (requested loading list)	AGK	-	O	-	O	-
Reference of transport order confirmation	AHI	-	-	O	-	-
Number of predecessor of call off	AIF	R	-	-	-	-
Transport Chain Reference	AKI	-	O	O	O	O
Chargennummer/ Lot Number	BT	-	-	-	GIR	-
Call Off Number (Spare Parts - After Sales)	COF	-	-	-	D	-
Shipment Number	CRN	-	O	O	R	CNI
Delivery Note of original Supplier to logistics external service provider etc.	DQ	-	-	-	D	-
Invoice Number	IV	-	-	-	O	-
Order Number	ON	O	R	O	R	-
Transport order Number assigned by the ordering parts of the related transport leg	TIN	-	BGM	R	O	O
Reference ultimate Customer (Spare Parts - After Sales)	UC	-	-	-	O	-
Waybill Reference	HWB	-	-	-	-	-

Figure 3 Usage of RFF Qualifier per message type

Name	Description	Qualifier
DUNS number of a party	If a NAD segment is transmitted within a message, the RFF+ANK serves to transmit the DUNS number of the partner function	RFF+ANK
Transport chain reference	<p>This reference forms the bracket over the individual transport sections of a shipment, each with a separate transport order in a multi-leg transport chain. It is assigned by the forwarding agent of the first transport stage and must be transmitted in the transport order confirmation. In multi-leg transport chains, this reference should be transmitted in all further messages.</p> <p>If the volume/weight advised by the ship from exceeds a complete vehicle, container, etc., the forwarder divides the volume among several consignments and assigns a separate transport chain reference number for</p>	RFF+AKI

Name	Description	Qualifier
	<p>each consignment. To ensure global uniqueness of this reference, it is derived from the</p> <ul style="list-style-type: none"> -globally unique DUNS number of the forwarder and -a unique number assigned by him, which must not be repeated over a longer period of time (> 1 year). <p>This ensures that a unique number is available as a reference throughout the entire transport process from transport order confirmation to delivery.</p>	
Transport order number	<p>The transport order reference refers to a transport leg and corresponds in VDA 4933 T1 and T2 to the BGM segment 1004 Document Identifier, i.e. the message number. In the subsequent messages, it is transmitted in RFF+TIN. If the transport chain consists of several transport legs, each transport leg can be ordered individually and receives its own transport order number accordingly. To ensure the uniqueness of the number when used by different process partners, this number must be stored together with a globally unique number of the consignor (ship-from) (e.g. DUNS or Odette number).</p>	RFF+TIN
Transport order confirmation	<p>The transport order confirmation number is assigned by the pick-up forwarder and is also the number of the BGM segment 1004 Document Identifier; there is no alternative RFF qualifier here. To ensure the uniqueness of the number when used by different process partners, this number must be stored together with a globally unique number of the forwarder (e.g. DUNS or Odette number).</p>	
Shipment (Consignment) Number	<p>This number is assigned by the consignor of the goods/empties. The global uniqueness of the number results from the concatenation with a globally unique number of the goods shipper (e.g. DUNS or Odette number).</p>	RFF+CRN in 4933 T1-T4, 4987 CNI in 4945
Transport Number Forwarder „Bordero“	<p>The transport number forwarder "Bordero" (RFF+AFC) applies to all individual consignments that are transported in a consolidated load on a transport leg from a forwarder to a transshipment point/consignee in the same means of transport vessel (truck, container, wagon).</p>	RFF+AFC

Name	Description	Qualifier
Access Code at ship from	This reference describes the ID with which the carrier is granted access to the goods/empties shipper's premises. This is usually the ID with which a time slot was booked for the loading point.	RFF+ABE
Access Code at ship to	This reference describes the ID with which the carrier is granted access to the premises of the consignee. This is usually the ID with which a time slot for the unloading point was booked.	RFF+AAO
Transport Reference of the Ship From	This reference represents the shippers desired loading list. When placing a transport order, the consignor gives this reference to all transport orders (planned shipments) that are to be loaded onto a means of transport.	RFF+AGK
Number der customs declaration	Returns the ID of the customs declaration	RFF+ABT
Shipment reference number assigned by the carrier	This reference describes a unique shipment tracking number assigned by the carrier (e.g. UPS/DHL/DPD shipment tracking number etc.).	RFF+AVU
Transport number issued by the authorities	In some countries there are official approval or registration processes for transports. In this case, the authority assigns a procedure or release number. This reference is used to transfer this number, e.g. EKAER number in Hungary.	RFF+AEL
Call off number	If the transport is based on a delivery call-off, the number of the delivery call-off can be transmitted with this reference.	RFF+AAN
Waybill number	This reference can be used to transfer the reference to the applicable consignment note. There is a separate reference for each consignment note version. <ul style="list-style-type: none"> ▪ AAM = Waybill ▪ HWB = House Waybill ▪ MWB = Master Waybill 	RFF+AAM, RFF+HWB, RFF+MWB

Figure 4 Definitions of RFF Qualifier

2.7 Partner roles used

The following partner functions are currently used by Volkswagen in the logistics messages. A detailed description can be found in the respective recommendation documents for the guidelines. Whether a partner function must be transferred for the corresponding message type can be found in the valid version of the respective guideline.

Partner role	Qualifier NAD+	4984	4933 T1	4933 T3	4987	4945V
Message Sender	MS	-	UNB	UNB	D	O
Message Recipient	MR	-	UNB	UNB	-	O
Buyer	BY	R	O	O	O	-
Seller	SE	R	R	R	D	-
Ship from	SF	O	R	R	R	R
Ship to	ST	R	R	R	R	R
Forwarder	FW	-	R	R	D	R
Carrier	CA	-	-	O	O	-
Ultimate Customer	UD	-	O	-	O	-
Orderer of transport	OY	-	O	-	-	-
Groupage Center	FZ	-	-	O	-	-

Figure 5 Overview NAD Qualifier per message

R = Required, O = Optional, D = Depending, ist ein anderer Wert angegeben handelt es sich um das alternative Segment in der die Information übertragen wird.

Rolle	Beschreibung	Segment
Message Sender	Technical sender of the message. Responsible for the technical transmission of the message. Must be specified for each message type at the time of connection.	NAD+MS
Message Receiver	Technical recipient of the message. Responsible for the technical transmission of the message. Must be specified for each message type at the time of connection.	NAD+MR
Ship to	The physical recipient of the material/empty goods	NAD+ST
Ship from	The physical consignor of the material/empty goods	NAD+SF
Seller	The contractual partner who is contractually responsible for the provision of the material/empty goods.	NAD+SE
Buyer	The contractual partner who is contractually responsible for the purchase of the material/empty goods	NAD+BY
Forwarder	The person responsible for the organisation of the transport or transport section	NAD+FW

Carrier	The person responsible for the physical execution of the transport or transport section	NAD+CA
Groupage Center	The person who transfers shipments from one means of transport to another.	NAD+FZ

Figure 6 Definition of NAD Qualifier

3 Supported processes Material flow

3.1 Standard process EDI Communication - Material flow

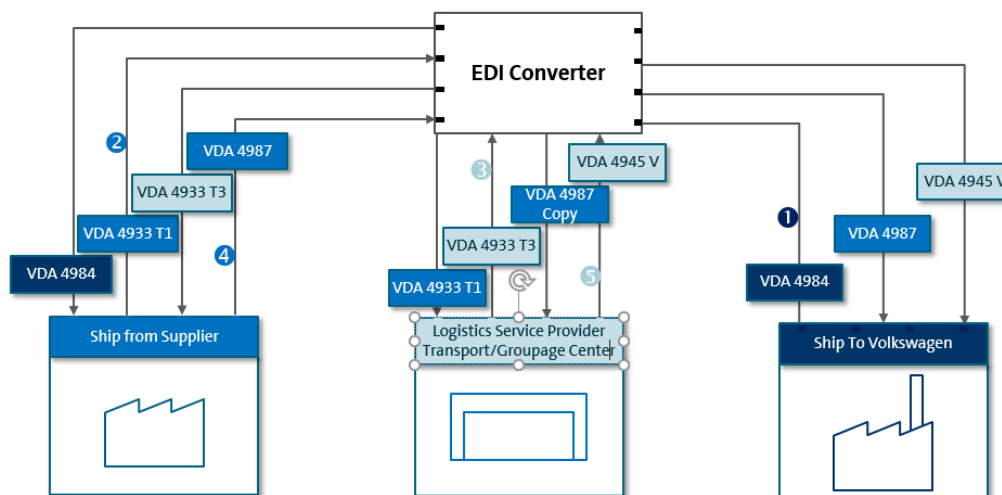


Figure 7 Standard process EDI Communication - Material flow

1. Volkswagen Volkswagen sends the VDA 4984 delivery call-off to the supplier via the VW EDI converter.
2. The goods ship from party (supplier) sends the VDA 4933 T1 transport order to the VW EDI converter. The EDI converter forwards the message to the logistics service provider (forwarder).
3. The logistics service provider (forwarder) sends the VDA 4933 T3 transport order confirmation to Volkswagen via the VW EDI converter.
4. The ship from party the VDA 4987 Despatch Advice via the VW EDI converter to Volkswagen. Volkswagen sends a copy of the message to the logistics service providers involved in the transport. During transport, the transport loading units must be marked with the Global Transport Label in accordance with VDA 4994 and the transport service provider must be provided with a document in accordance with VDA 4939 Consignment note, which accompanies the goods throughout the entire transport route.
5. The logistics service provider (forwarder or groupage center) sends the VDA 4945 transport status message to Volkswagen via the VW EDI converter.

3.2 Special process EDI Communication Supply via commission warehouse

VOLKSWAGEN's delivery concepts include the use of commission warehouses or EDLs (external service providers) as a variant. A commission warehouse is a warehouse in front of or in the Volkswagen plants, which is and supplied with material by the Supplier, but is controlled operationally by

Volkswagen. The goods remain the property of the supplier until they are delivered to the production line. The supplier material is settled and transferred to Volkswagen ownership at the settlement time 0 o'clock for the past day. The logistical receipt of the goods (without transfer of ownership!) by Volkswagen is carried out according to the same goods receipt procedures as for a normal delivery to a Volkswagen warehouse.

The special feature of this procedure is that it is not the deliveries and delivery note numbers of the supplier to the commission warehouse that form the basis for the acceptance of services by Volkswagen, but the delivery note numbers specified by the commission warehouse. The process requires close coordination of information with the supplier.

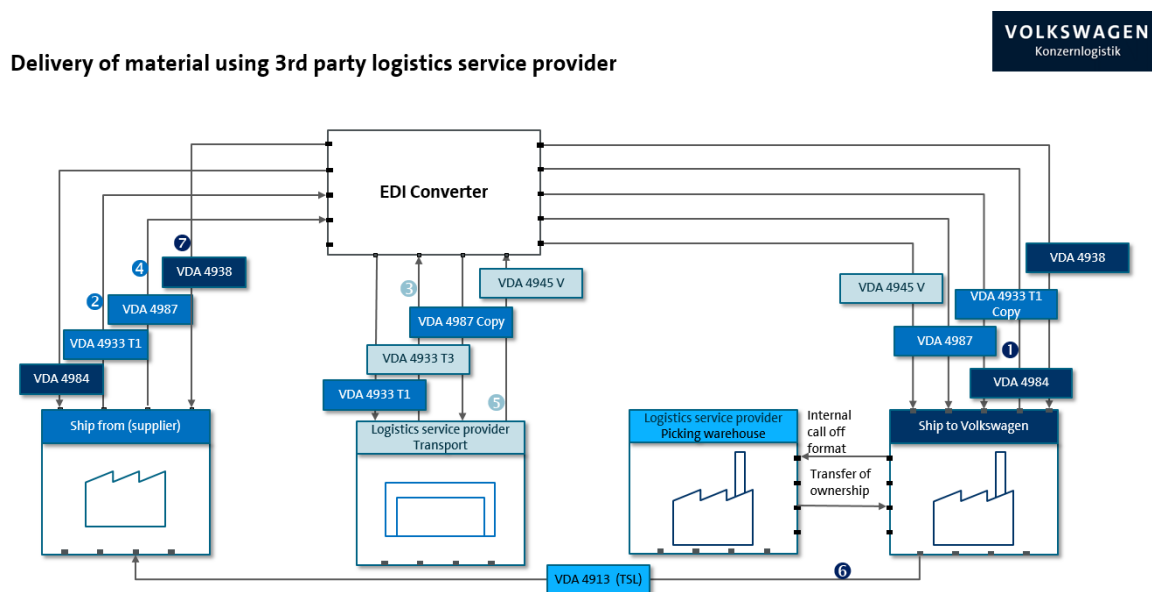
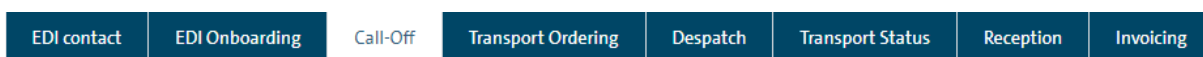


Figure 8 Special process EDI Communication Supply via picking warehouse

1. Volkswagen sends the VDA 4984 delivery call-off via the VW EDI converter to the supplier analogue to the standard process.
2. The goods shipper sends a VDA 4933 T1 transport order via the VW EDI converter to the forwarder and a copy to the Volkswagen ECO system. During transport, the transport load units are to be marked with the Global Transport Label according to VDA 4994 and the transport service provider is to be provided with a document according to VDA 4939 Consignment note, which accompanies the goods throughout the entire transport route.
3. The transport service provider sends a 4933 T3 via the VW EDI converter as a copy to the Volkswagen ECO system.
4. The ship from sends a VDA 4987 Despatch Advice via the VW EDI converter to the forwarder and a copy to the Volkswagen ECO system.
5. The forwarder sends the agreed VDA 4945 transport status messages via the EDI converter to the VW ECO system.
6. Volkswagen sends the VDA 4913 TSL (daily delivery note) to the supplier usually daily or weekly on Monday morning (not via EDI converter):

- Departure notification to Volkswagen: VDA 4913 - transaction type (VA) 36 The departure notification is transmitted daily by VW to the supplier after transfer posting (transfer of ownership) of the material delivered to Volkswagen on the previous day.
 - Confirmation of receipt: VDA 4913 - VA 30 The inbound message is transmitted from Volkswagen to the supplier on the following day of delivery (receipt of goods) to the consignment warehouse.
 - Stock report: VDA 4913 - VA 35 The stock report on the supplier material is sent at the same time as the transmission of warehouse issue or receipt data.
 - In the commission warehouse process, the daily delivery note serves as the basis for the financial settlement with the supplier.
 - When looking at the inventory management of a material, the supplier first receives the information about the stock receipt, then the stock level. When the goods leave the commission warehouse, the transfer of ownership takes place. On this basis, the credit notes are created in accordance with Volkswagen's VDA 4938.
 - All described transaction types are transferred in a common file. The described feedback information from Volkswagen is to be processed by the supplier in order to be able to control warehouses, deliveries and payment. 7.
7. The supplier shall send a VDA 4938 exchange of electronic settlement documents using EDIFACT without digital signature via the EDI converter to the Volkswagen ECO system.

3.3 The delivery call-off process for material



The delivery call-off process is the basic process in which concrete material requirements and all relevant information are transmitted to the supplier in order to ensure the supply of the Volkswagen Group locations at the right time, in the right quantity, at the right place.

3.3.1 Standard process

In the standard procedure, suppliers receive an EDI delivery call-off as VDA 4984 - Global DELFOR.

3.3.2 Special process

In addition to the standard processes in which the current global EDIFACT messages are used. The following special processes are supported.

3.3.2.1 Genuine parts sales direct delivery

The message format **CALDEL** is used exclusively for the control of the "OT drop shipment" as a supplement to the delivery call-off.

The following document contains a detailed description of possible special processes of the Genuine Parts Sales Division:

[OT Sonderprozesse.](#)

3.3.2.2 Produktion synchronized Call Off (PAB)

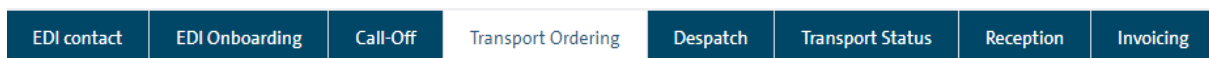
The **PAB** is only used at Volkswagen in special cases - for order-related sequence steering (JiT) of vehicle components.

For new JiT installations, the ODETTE/EDIFACT subset SYNCRO/DELJIT is used as PAB and for module-specific preview data.

3.3.2.3 New Logistics Concept (NLK) – (only used at Chattanooga site)

This process is used exclusively in the delivery call-off process at Volkswagen Group of America at the Chattanooga site. Suppliers receive a call-off preview here as VDA 4984 - Global DELFOR. It is used for the supplier's production scheduling. The binding call-off in the NLK process takes place with the dispatch call-off (VAB) in the GLOBAL DELJIT format as an electronic pick-up sheet.

3.4 The Transport Order process for Material



This communication process is currently provided for material transports in Europe.

3.4.1 Standard process VDA 4933 T1 Transport order Material

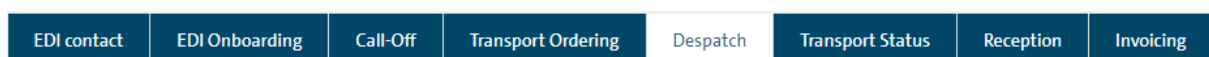
In the standard process, the goods shipper creates an EDI message VDA 4933 T1 transport order for each shipment that is scheduled for collection. For material transports within Europe, this is usually done on the day before collection at the contractually agreed cut-off time.

Important: If the contents of a transport order change, it is cancelled and a new transport order is sent. Updates to existing transport orders must not be transferred.

3.4.2 Standard process VDA 4933 T3 transport order confirmation Material

In the standard process, for each VDA 4933 T1 transport order received, the forwarder confirms with VDA 4933 T3 transport order confirmation when and with which means of transport/equipment he will take over the consignment. For material transports within Europe, this is usually done on the day before collection at the contractually agreed time.

3.5 The despatch process



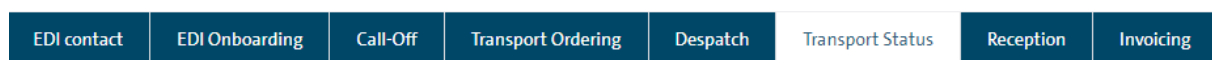
At the time of loading the material, the supplier has to ensure that the messages and documents described below are provided in accordance with the applicable recommendations:

3.5.1 Standard process VDA 4987 Despatch Advice

In the standard process, the ship from ensures at the time of shipment that:

- One VDA 4987 per shipment is transmitted to the ship to party at the end of loading.
- This is the message with the highest complexity. It is the cornerstone for all processes in the control of material supply from the ship from to the ship to's unloading point. The data quality of this message is crucial for digitalisation to ensure supply security.
- A shipment note is available for the shipment in accordance with VDA 4939 for handover to the driver.
- The transport loading units provided for loading are marked in accordance with VDA 4994.

3.6 Transport-/shipment tracking



This communication process is currently provided for material transports in Europe.

3.6.1 Standard process VDA 4945 Transport Status Message Material

In the standard procedure, the forwarder or the logistic service provider at a Hub creates messages for the EDI events of the transport process in accordance with VDA 4945 Transport Status Message for which he is contractually responsible. For material transports, Volkswagen currently expects status messages for the following events.

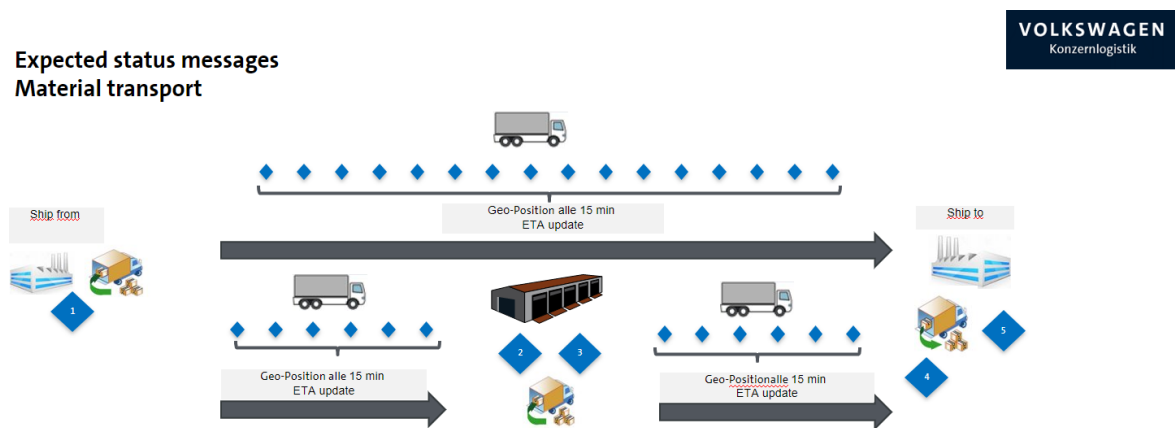


Figure 9 Expected status material transport

This figure shows transport status messages only. We expect that transport order/-confirmation are transmitted using EDI Guidelines 4933 T1 and 4933 T3.

1. Pick up confirmed – to be sent when pick up is finished at ship-from
2. X-Dock receipt– to be sent when unloading is finished at x-dock
3. X-Dock issue - to be sent when loading is finished at x-dock
4. Arrived at gate - to be sent when truck has arrived at gate at ship-to

5. Delivered - to be sent when unloading is finished at ship-to

In addition we expect an update of Geo-position an ETA each 15 min. when the Truck is in transit

DA 4945 offers the possibility to transmit a status to the levels transport (means of transport), consignment or consignment position. Currently, Volkswagen expects the following status codes for consignments without deviations. In a future expansion stage, the transmission of deviations will also be permitted.



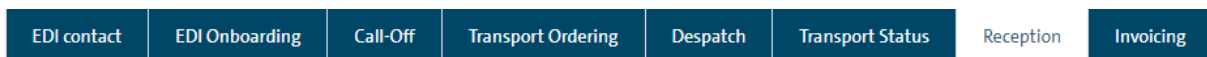
**Expected status codes step 1 without discrepancy
+most important information inside the message**

Role	Process Step	Status description VW	Transport status STS+1	Shipment status STS+X2	Transport-leg from TDT 8051	Licence plate TDT C222 8213	Licence plate EQD C237 8260	Access code ID from syncro supply RFF+AAO	Bordero RFF+AFC
Forwarder	Pick up at ship from	Pick up completed	24	13	10 or 3*	asap	asap	asap	asap
Forwarder	Delivery at x-dock	X-Dock Delivery completed	1	29	10 or 3*	asap	asap	asap	asap
X-Dock LSP	Receipt at x-dock	X-dock receipt confirmed	n. a.	74	X02	asap	asap	asap	asap
X-dock LSP	issue at x-dock	X-dock issue confirmed	n. a.	48	X02	asap	asap	asap	asap
Forwarder	Pick up at x-dock	Pick up completed	24	13	3	asap	asap	asap	asap
Forwarder	Arrival at ship to	Arrival at gate	1	1	3	asap	asap	asap	asap
Forwarder	Delivery at ship to	Delivered at ship to	1	21	3	asap	asap	asap	asap
Forwarder	Truck in Transit	In transit	31	31	all	asap	asap	asap	asap

* 10 only applies for the transport leg to the x-dock. For direct shipments the pick up is already part of the last transport leg and therefore 3

Figure 10 Most important information for process steering material

3.7 Receiving Process



The receiving process at the goods recipient is not supported by EDI in the standard process. Exceptions are special processes like daily delivery note in the logistics service provider pick up process.

4 Supported processes empties flow

4.1 EDI Communication standard supply empties

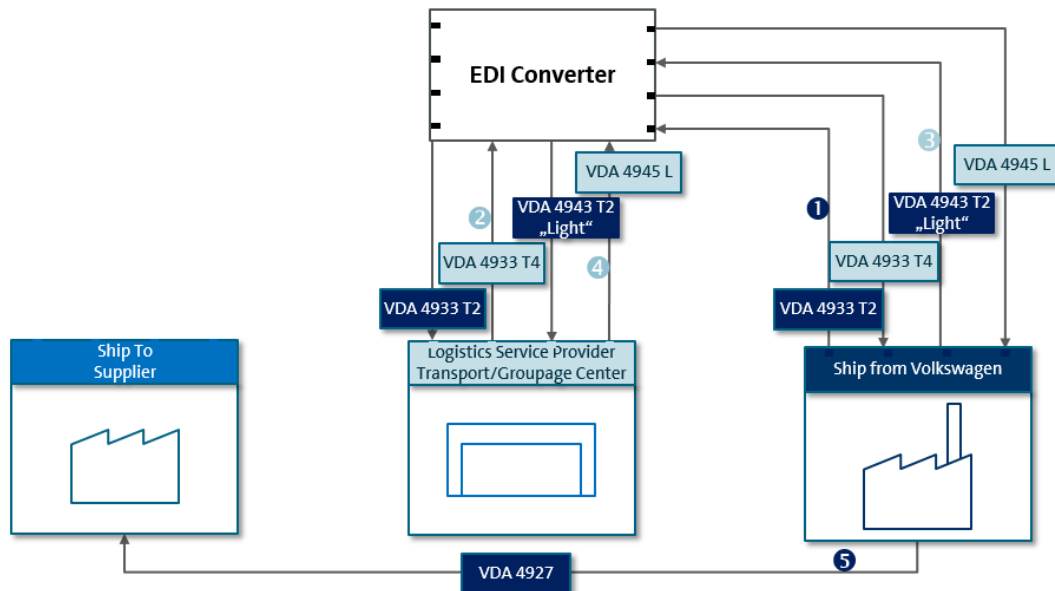


Figure 11 EDI Communication Flow Empties

1. Volkswagen sends the VDA 4933 T2 transport order via the VW EDI converter to the logistics service provider (forwarder).
2. The logistics service provider (forwarder) sends the VDA 4933 T4 transport order confirmation via the VW EDI converter to Volkswagen.
3. Volkswagen sends the VDA 4943 T2 Light to the forwarder via the VW EDI converter.
4. The logistics service provider (forwarder) sends the VDA 4945 transport status message to Volkswagen via the VW EDI converter.
5. Volkswagen sends the legacy format VDA 4927 (no EDIFACT) packaging data to the supplier.

4.2 The Order Process

The ordering process for containers is currently not supported via EDI.

4.3 Transport order process

EDI contact	EDI Onboarding	Call-Off	Transport Ordering	Despatch	Transport Status	Reception	Invoicing
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4.3.1 Standard process 4933 T2 Transport order empties

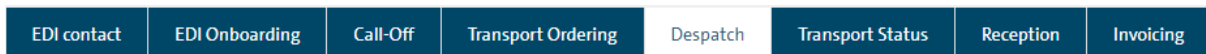
In the standard procedure for transports of empties in Europe, the empties shipping point as the responsible goods shipper creates an EDI message VDA 4933 T2 transport order for each empties shipment that is scheduled for collection. In opposite to the regulation for the transport order of material transports, the transport orders for empties are created partially up to one week before the desired pick-up date and thus give the forwarder a better planning basis.

Important: If the contents of a transport order is changed, it is cancelled and a new transport order is sent. Updates to existing transport orders are not transferred.

4.3.2 Standard process VDA 4933 T4 Transport order confirmation for empties

In the standard procedure, for each VDA 4933 T2 transport order received, the forwarder confirms with VDA 4933 T4 transport order confirmation when and with which means of transport/equipment he will take over the consignment. For transports of empties within Europe, this is usually done on the day before collection at the contractually agreed time.

4.4 Despatch process



4.4.1 Standard process (running)

In the current standard process, the shipper of the empty goods at the time of shipment ensures that:

At the end of loading, the VDA 4927 legacy format is optionally transferred to the consignee. Standardprozess (geplant)

4.4.2 Standard process (planned)

In the new standard process it is planned (date of implementation not yet known) that the consignor of the empties ensures at the time of dispatch that:

- At the end of loading, a VDA 4943 T2 delivery notification for empties is optionally transmitted to the consignee for each consignment.
- A consignment note is available for the consignment in accordance with VDA 4939 for handover to the driver. at the end of loading, a VDA 4943 T2 delivery notification for empties is optionally transmitted to the consignee for each consignment.

4.5 Transport status message

EDI contact	EDI Onboarding	Call-Off	Transport Ordering	Despatch	Transport Status	Reception	Invoicing
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In the standard procedure, the forwarder or the handling service provider creates EDI messages for the events of the transport process in accordance with VDA 4945 Transport Status Message, for which he is contractually responsible. For the transport of empties, Volkswagen currently expects status messages for the following events.

**Expected status messages
Empties transport**

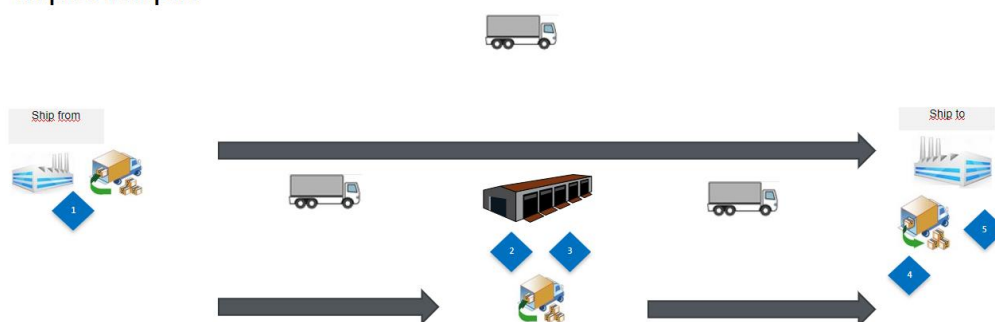


Figure 12 Expected status empties transport

This figure shows transport status messages only. We expect that transport order/-confirmation are transmitted using EDI Guidelines 4933 T2 and 4933 T4.

1. Pick up confirmed – to be sent when pick up is finished at ship-from
2. X-Dock receipt– to be sent when unloading is finished at x-dock
3. X-Dock issue - to be sent when loading is finished at x-dock
4. Arrived at gate - to be sent when truck has arrived at gate at ship-to
5. Delivered - to be sent when unloading is finished at ship-to

VDA 4945 offers the possibility to transmit a status to the levels transport (means of transport), consignment or consignment position. Currently, Volkswagen expects the following status codes for consignments without deviations. In a future expansion stage, the transmission of deviations will also be permitted.

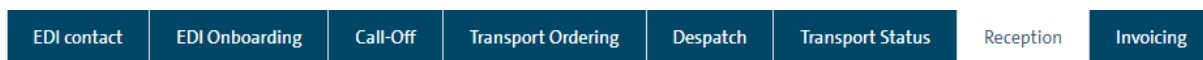


**Expected status codes step 1 without discrepancy
+most important information inside the message**

Role	Process Step	Status description VW	Transport status STS+1	Shipment status STS+X2	Transport-leg from TDT 8051	Licence plate TDT C222 8213	Licence plate EOD C237 8260	Access code ID from syncro supply RFF+AAO	Bordero RFT+AFK
Forwarder	Pick up at ship from	Pick up completed	24	13	10 or 3*	asap	asap	asap	asap
Forwarder	Delivery at x-dock	X-Dock Delivery completed	1	29	10 or 3*	asap	asap	asap	asap
X-Dock LSP	Receipt at x-dock	X-dock receipt confirmed	n. a.	74	X02	asap	asap	asap	asap
X-dock LSP	issue at x-dock	X-dock issue confirmed	n. a.	48	X02	asap	asap	asap	asap
Forwarder	Pick up at x-dock	Pick up completed	24	13	3	asap	asap	asap	asap
Forwarder	Arrival at ship to	Arrival at gate	1	1	3	asap	asap	asap	asap
Forwarder	Delivery at ship to	Delivered at ship to	1	21	3	asap	asap	asap	asap

Figure 13 Most important information for process steering empties

4.6 Reception process



The receiving process at the empties recipient is not supported by EDI in the standard process.