

Despatch Advice with EDI

VDA 4987

Version 3.1, June 2023



Process description

This recommendation refers to the exchange of despatch advice data from suppliers to automotive manufactures. It is the project result of the VDA Working Group Communication and Information Technology.

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0 Change History

Version 3.1, 2023-06	<ul style="list-style-type: none"> - Chapter 7 Examples of DESADV message structure – deleted completely. - Old chapter 8 now new chapter 7 Annexes reviewed.
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1 Introduction

Despatch advices play an important role for the implementation of smooth supply chain processes in the automotive industry. They serve several purposes:

- Fast and on-time provision of material, shipping and transport details to the recipient of the goods in advance of the actual delivery.
- Improvement of transparency as regards material flows.
- Greater data security and data quality, resulting in fewer discrepancies between delivery details and invoice details.
- Reduction of time required for data input and for the processing of incoming goods upon delivery, e.g. by means of a linked barcode scanner system or RFID technology. This ensures faster incoming goods processing.
- In conjunction with VDA 4939 "Transport and Shipment Papers": user-friendly, summarised display of delivery data.
- Improved process quality for packaging material management, reducing the need for time-consuming adjustments.

This recommendation replaces VDA 4913. It takes into account the latest process requirements with regard to the different delivery concepts implemented by the industry. It further takes into account the fact that the supply market has become more international.

In particular, this recommendation contains new procedures for the following processes:

- " " – direct data exchange between supplier and customer, delivery notification (relevant for invoicing)
- "33" – Returns to supplier
- "40" – Delivery notification (not relevant for invoicing)

The following processes have been included in the new recommendations:

- Daily delivery note from supplier to customer
- Re-ordered parts - ONLY for JIS processes
- Transport order
- Ready-for-shipping note (supplier to customer/freight forwarder)
- Delivery advice (e.g. in cases where an item is not included in a JIS delivery). In this case, the supplier must send a separate despatch advice, indicating the date/time of delivery of the missing item.

Despatch advices generated according to these recommendations also enable users to reproduce a wide range of packaging structures in a clear and unambiguous manner. Annexe 3 contains a number of packaging containers with instructions for the correct inclusion in the DESADV (electronic despatch advice message).

Other procedures referred to in VDA 4913 are implemented by other EDIFACT messages (or equivalent XML message types):

- "30" – Goods receipt notification with EDIFACT RECADV
- "32" – Transport damage/loss/discrepancies with EDIFACT RECADV
- "32" – Storage damage with EDIFACT INVRPT
- "35" – Inventory report message third-party logistics (3PL) provider with EDIFACT INVRPT

- "36" – Issue note (3PL) with EDIFACT INVRPT

2 Use of DESADV

For goods-only process, the DESADV is used in 3 scenarios:

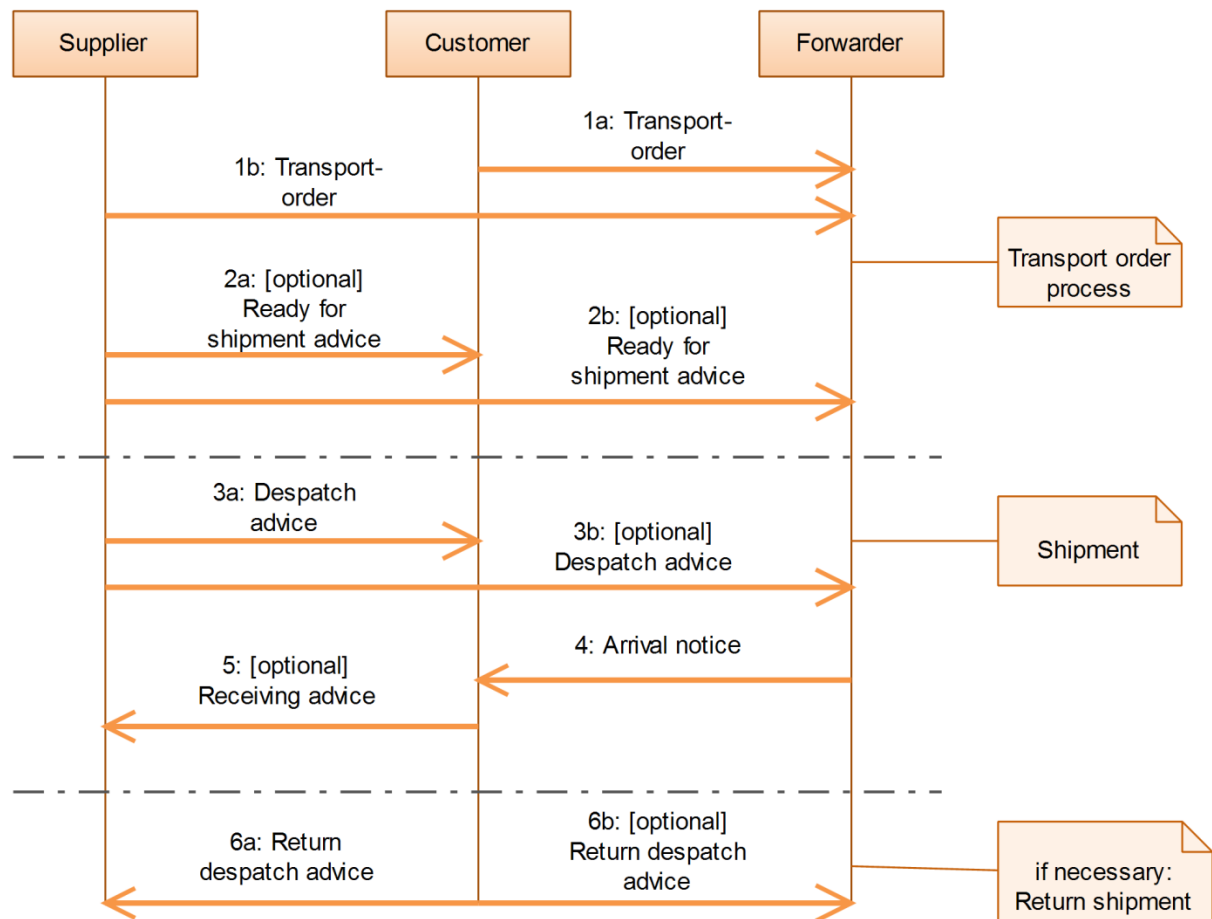


Figure 1 Use of DESADV messages

2.1 Transport order

Depending on contractual arrangements, transport orders are issued by the customer or the supplier. Even in cases where the customer pays for transport, it must often be arranged by the supplier for operative reasons.

Transport orders can be issued by:

- Fax, phone, e-mail, web portal, etc.
- Route schedules (Volkswagen NLK)
- Transport order by EDI IFTMIN, VDA 4920 (BMW, Volkswagen)
- Transport calls (VW AMES-T)
- Delivery calls, with copy to transport company (Porsche)
- Despatch advice preview for transport scheduling (Brose)

- etc.

In the scenario used by Brose and in other scenarios, the DESADV might be used to place the transport order.

In certain processes, the supplier can or must notify the customer that the goods are ready for shipping. This can be done through a web portal or by means of a DESADV (ready-for-shipping note, VDA 4933).

2.2 Despatch advice

A despatch advice is normally required for deliveries. For EDI, message DESADV is used. The message must contain information regarding the actual scope of the delivery and should therefore only be sent when the consignment has left the goods issue department of the supplier. In certain cases, the freight forwarder receives a copy of the despatch advice. The freight forwarder can use the data for the generation of a delivery advice to be sent to the customer.

When used as a despatch note, the DESADV fulfils the following functions:

1. Notification of the delivery quantity per parts number to the customer (serves as a pro-forma delivery note). This enables the recipient to identify the quantity currently in transit.
2. Notification of delivery quantities per re-usable packaging type for container management.
3. Simplification of incoming goods processing: Identification and posting of quantities of incoming goods, based on the label attached to the outer packaging (master label and contained parcels).
4. Interface file for transport label and documents accompanying delivery.

2.3 Advice of returns

If the customer returns goods to the supplier, the DESADV can also be used as a despatch advice for the return.

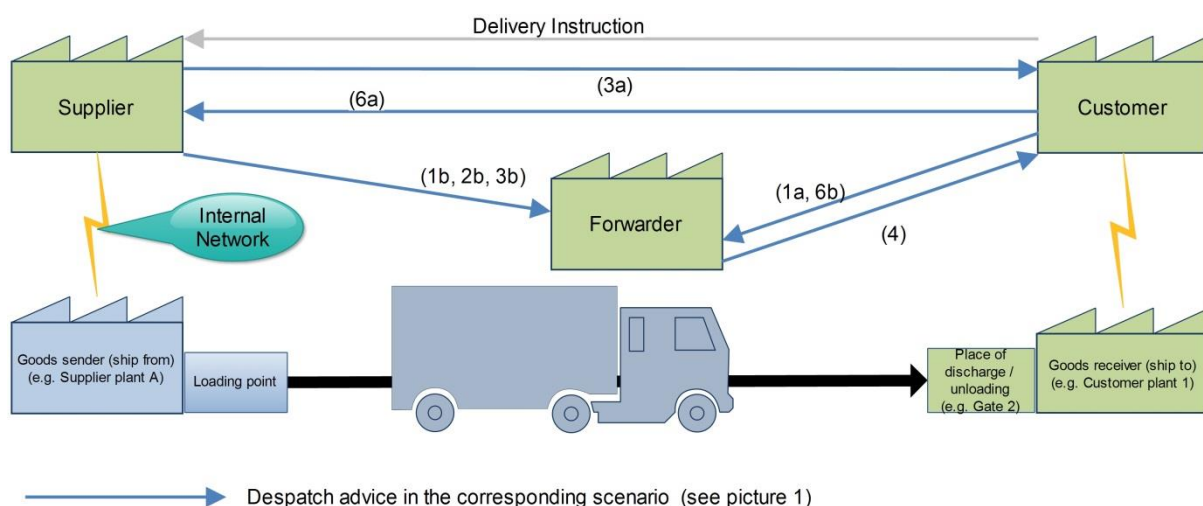


Figure 2 Message flow for various scenarios

The recommendation assumes that the messages are exchanged between the central offices of the respective partners and distributed to the individual works and departments as required through internal communication channels for download and forwarding.

In the simplest scenario, the customer and the supplier operate only one plant each. Even if the details of the recipient of the goods correspond to those of the customer, and the details of the despatcher of the goods correspond to those of the supplier, the plants or works must be specified as the goods despatcher and recipient here. The individual works or plants of the supplier are thereby often identified by an index in the supplier number. Alternatively, other identifiers might be used for the supplier (e.g. header DUNS number, for suppliers and ship-from DUNS numbers for the individual works/plants).

3 General requirements and rules for the structure of a DESADV message:

Each DESADV message corresponds to one shipment. A shipment is identified by a shipment number (formerly known as shipment load reference number). A shipment number corresponds to the respective shipment order.

If a transport contains more than one shipment, a separate DESADV must be created for each shipment.

A shipment is triggered by:

- a. dispatcher of the goods
- b. Unloading location (formerly delivery address; a new unloading location for a delivery from the same despatcher of the goods results automatically in a separate shipment)
- c. Transport vehicle: each shipment includes maximum one lorry load or one container.

In the most simple case, a DESADV thus refers to a single shipment, e.g. by lorry, from a despatcher of the goods to a recipient of the goods with one unloading location only.

Note: If the same transport route is used to transport full and empty containers, the empty containers must be treated as a separate shipment with a separate DESADV (see also VDA 4943 - Empties Advice). If empties are sent together with full containers in order to stabilise the load, they must be specified in the goods DESADV as auxiliary packaging (for examples, see below).

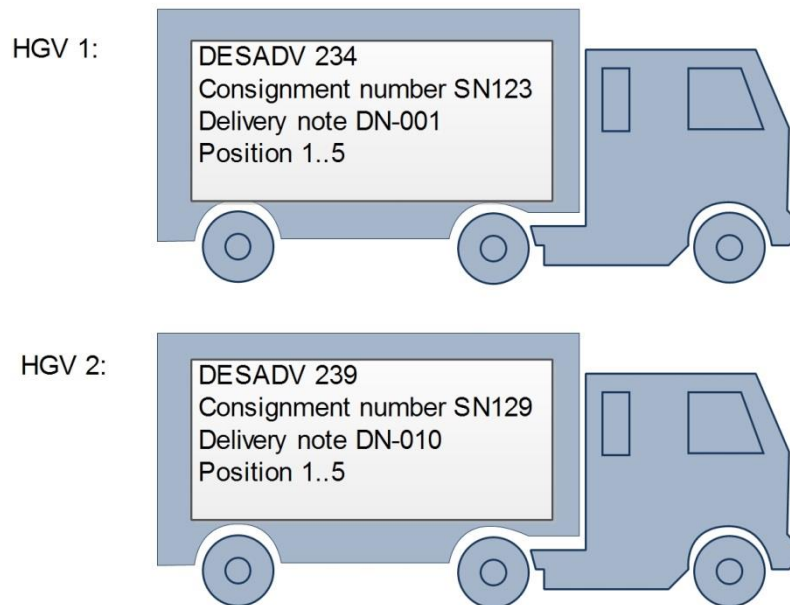
Relationship between transport, shipment and delivery note

A transport can contain 1...n shipments. Each shipment is assigned a unique shipment number. The shipment corresponds to the specifications in the shipment order.

Each shipment is notified to the customer with a separate DESADV. Ideally, the DESADV corresponds to one delivery note with 1...n delivery note items. It is however possible to combine several delivery notes in one DESADV. This option is however mainly maintained in order to ensure compatibility with existing systems.

Option 1: 1 shipment to 1 unloading location
 = 1 shipment number and 1 DESADV message

Example: On a given day, 2 shipments are loaded. Each shipment includes 5 part numbers.

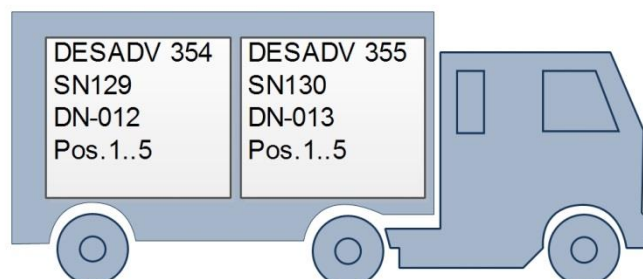


Note: The DESADV number, shipment number or delivery note number for each customer must be generated in ascending sequence without gaps. They must however be unique within each calendar year. These identifiers are alpha-numerical codes and can thus contain letters and numbers.

Option 1: The transport job consists of several shipments to different unloading locations
= n shipment numbers and n DESADV messages

Example: One transport is used to bring separate shipments to two different unloading locations. Each shipment includes multiple part numbers.

HGV 1:



A similar situation arises when one HGV performs what is known as a "milk run", picking up shipments from different suppliers for delivery to one recipient. Each despatcher / supplier generates a separate DESADV message for his shipment.

If a 3PL provider is used, observe the following:

- Certain customers wish to be notified of the fact that the shipment is made to the 3PL provider (VDA 4913, process 40).
- By making a delivery to the 3PL provider of the customer, the supplier normally fulfils his obligations under the supply contract.
- In most cases, ownership of the goods is transferred at the moment of delivery to the 3PL provider, unless this partner only operates a consignment warehouse on behalf of the customer.

Where a 3PL provider and/or consignment warehouse is involved, it is possible to use INVRPT messages in order to inform the customer of the stock movement.

Drop shipping:

- For drop shipping, the unloading location might be a dealer or other supplier (extended workbench).

4 Relationship between DESADV and other messages along supply chain:

Figure 3 illustrates the relationship of the various messages in a direct delivery process (i.e. no involvement of 3PL provider).

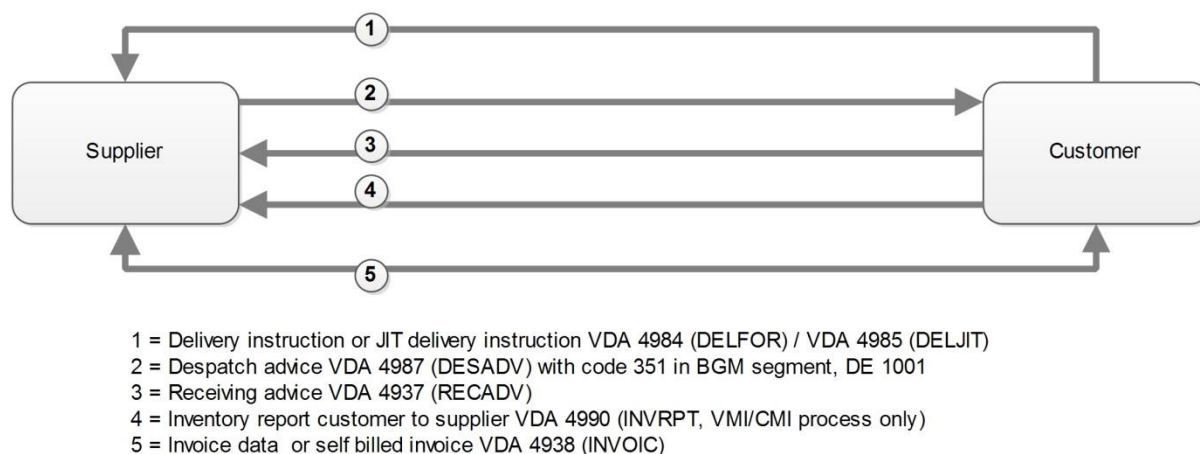
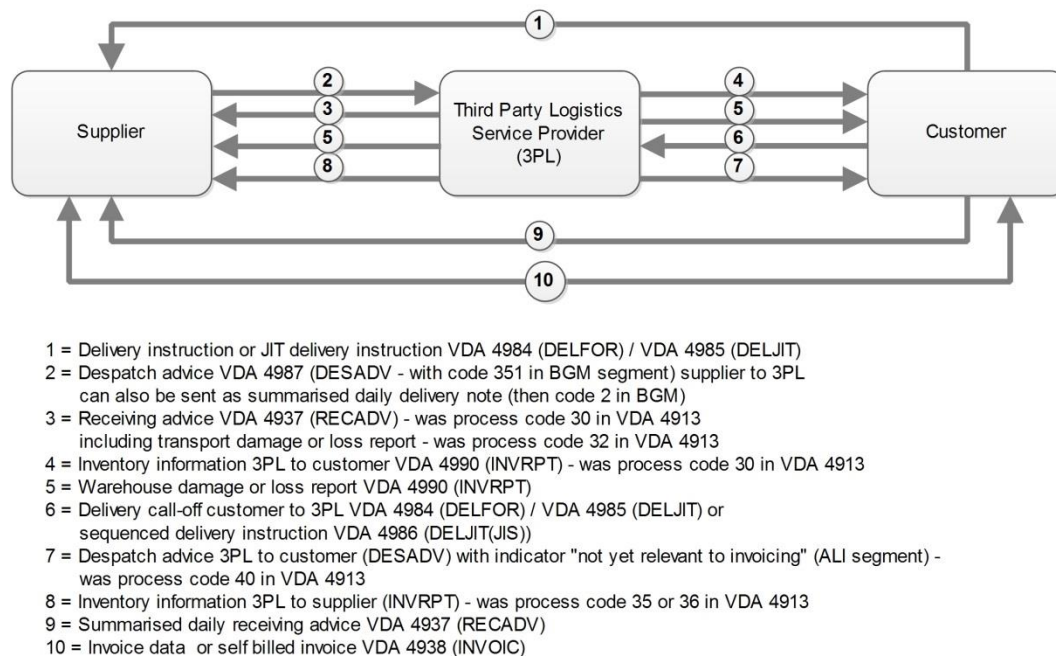


Figure 3 Message flow without 3PL provider

Figure 4 illustrates the exchange of messages in delivery scenarios that include a 3PL provider. These scenarios are common in processes where delivery is synchronised with production.



Note:

- a) For JIS processes the receiving advice (3) can also be sent as a DELJIT (JIS) according to VDA 4986.
- b) Instead of (2) the supplier may use (6). In this case the 3PL sends (2) to customer (consignment stock concept)
- c) Messages 1..9 can be sent to the appropriate other partner (customer, supplier, 3PL) if this is desirable for increasing the process transparency.

Figure 4 Message flow with 3PL provider

For processes that involve a 3PL provider, we recommend sending the despatch advice message directly to the customer who can then forward it to the 3PL provider. If there is a change of the 3PL provider, process stability is maintained, as only minor adjustments need to be made at the supplier end.

5 Message structure

Header level

Message number and date

Shipment number and other shipment-related data (dimensions, weight, despatch / arrival date)

Transport vehicle and transport equipment (optional)

Partners involved in process:

Ship from (despatcher of goods) (mandatory)

Ship to (recipient of goods) (mandatory)

Supplier (optional)

Customer (optional)

Freight forwarder (optional)

Freight carrier (optional)

etc.

Packaging level

1..n Packaging information

Type of packaging

Packaging level (outer, intermediate, inner)

Label ID

Contained packages or quantities

etc.

Vehicle-related information (JIS processes)

Batch, date of production, expiry date, etc. are attributes of the inner packaging units or simplified handling units

Parts level

1..n Part information with

part number,

quantity, country of origin, etc.

5.1 Notes re. message header

The despatcher and the recipient of the goods must be named. The details of the other partners are optional. Whether they are to be included depends on the delivery process and the agreement between the partners.

Each DESADV can only contain one freight forwarder.

Each DESADV can only contain one carrier. If the goods are transported by more than one carrier, which is for example the case in multimodal transport systems, consult the customer to determine which carrier is to be included in the DESADV.

Containers (20-foot or 40-foot containers) are considered transport equipment (carrier's equipment) and are therefore not treated as packaging units.

5.2 Notes re. packaging level

Definitions:

Packaging: General term for all packaging components

Packaging item: Inner packaging or simplified handling unit with single label

Handling unit: Packaging container or simplified handling unit with master label -> physical item that is transported from the supplier to the customer.

Packaging information is required for automated incoming goods processing, optimised transport and the re-use of packaging material.

For this purpose, all packaging information must be transmitted correctly, and the type and structure of the handling units (simple handling units or combined packaging) must be specified.

The system distinguishes between three packaging levels:

Transport loading unit (a.k.a. Handling unit)

Outer packaging units for individual loading, labelled with a master label or a mixed label (6J or 5J). The outer packaging might consist of pallets or multiple small loading units (KLT), a large loading unit (GLT) or a mesh crate (with additional containers holding the parts).

Inner packaging

Smallest packaging unit, containing the delivered parts and labelled with a single label (1J).

Intermediate packaging

Intermediate packaging between the handling unit and the inner packaging. Intermediate packaging is normally used in conjunction with virtual packaging units and is labelled with a mixed label (5J).

The packaging level must be included in the message for each packaging unit. A special type of packaging are simplified handling units that combine the outer and inner packaging (e.g. mesh crate or GLT without any inner containers). Simplified handling units must be identified as such without any hierarchy.

Packaging aids such as lids, inserts, etc. must be identified as such. Should it be necessary to assign them to a specific packaging, the packaging aids are included in the message after the main packaging (handling unit or packaging unit) to which they belong (see also packaging examples below).

In the message, the packaging structure must be listed from the outer packaging inwards, i.e. handling unit followed by packaging items and main packaging items before packaging aid.

If two or more packaging units have the same properties (identical packaging type, packaging aid, capacity and part number), they should be combined into one packaging (see packaging example 12).

For each outer packaging, the number/identifier of the containers contained in it must be listed at the next packaging level. This applies accordingly to intermediate packaging.

If unpacked parts are placed beside an inner packaging into an intermediate packaging or an outer packaging, a virtual packaging unit with code "COPACK" must be included in the message.

Where the **manufacturing date**, the **batch number**, the **best before date**, the **expiry date** or the **production number** (JIS process) is transmitted, these details are **key data** for the **inner packaging**.

This means that an inner packaging unit must only contain parts of the same batch, date of manufacture, etc. If it is for example necessary to transport parts from two different batches in one shared inner

packaging unit, a virtual packaging unit with designation "COPACK" must be generated. In this case, a separate label must be produced and applied so that the customer can easily identify the batch to which each part belongs when accepting the goods. This applies according to all other above key data. **A separate delivery note item must be generated for each batch, date of manufacture, expiry date and best before date.**

If the containers on a pallet that is part of a JIT/JIS process shipment have different target goods receipt dates (SWET), which might be the case where the freight forwarder reloads the goods and makes deliveries based on time slots, the containers must be separately listed in the PCI segment groups (SG13).

The following data labels are permissible to identify the labels:

- 6J** Master label; handling unit, delivery containing only identical parts
(packaging level = outer)
or label on intermediate packaging, delivery containing only identical parts
(packaging level = intermediate)
- 5J** Master label; handling unit, mixed delivery (packaging level = outer)
or label on intermediate packaging, mixed delivery (packaging level = intermediate)
Note: Handling units containing parts with the same part number but belonging to different batches (analogously have different manufacturing or expiry dates) have to be identified as mixed load handling units.
- 1J** Single label on inner packaging (packaging level = inner)
or master label on simplified handling unit (packaging level = simplified)
- 3J** Unique license plate number - JIS handling unit with trays
- 4J** Unique license plate number - JIS handling unit with 1..n JIS packages

For details regarding possible packaging structures and their inclusion in messages, see **Annexe 3 and 4**.

5.3 Notes re. parts level

The total delivery quantity of a part number has to be transmitted in every line item independently of the allocation to different packaging items. If it is necessary to transmit several item lines for the same part number (including same batch number and expiry date) because of the structure of the packaging then in addition the split quantity for this line item has to be transmitted (see also packaging examples in Annexe 3).

This is valid and applicable even in JIS and special processes.

If there are line numbers at line item level, these item numbers must be assigned uniquely and listed in ascending order in the DESADV for clear identification.

In addition to the above key data

- Batch number
- Manufacturing date
- Expiry date
- Best before date

(if applicable), the following information constitutes **key data** at part level and thus triggers a new item line:

- Part number
- Framework contract number (order number)
- Engineering change
- Hardware status
- Software status
- Parts generation status¹

¹ Changes each time the tool used for the production of the part is changed. Required for parts that are subject to mandatory documentation.

Delivery note reference

Each DESADV item (SG17) must contain a reference to the delivery note / delivery note item. In contrast to VDA 4913, VDA 4987 allows users to combine material items of different orders and locations of use/consumption in a single DESADV. The goods shipped with one DESADV can and should also be listed in a single delivery note. Delivery notes, used by certain ERP systems based on the structure proposed in VDA 4913, with single items only (known as single-item delivery notes) are no longer required in such cases. A DESADV can of course also refer to multiple delivery notes.

For the line item level (SG17) the following rule applies: every new delivery note number or position number in the delivery note requires a new line item (SG17) in the DESADV.

6 Special process "Aftermarket"

For OES aftermarket transactions (where spare parts and accessories are ordered by the OEM from the tier 1 supplier and sent to the OEM's central warehouse for subsequent shipping to the retailer), processes like those for production parts are used in most cases. It is also possible to send delivery forecasts and calls and even despatch calls. The supplier sends a DESADV to the customer to notify him of the delivery.

For certain parts, the system supports special processes such as drop shipping. The parts to be handled in this manner must be specified in advance in the form of a contract. For special processes, the total delivery quantity can be communicated by means of a DELFOR message (known as a complete delivery call or forecast). The individual shipments are however normally sent directly to the trading partner. For this purpose, individual delivery calls (DELJIT) or orders (ORDERS) are sent by the OEM to the supplier. In this case, the shipments go directly to the wholesaler, bypassing the central warehouse. For such processes, additional references must be included in the despatch advice (see figure 5).

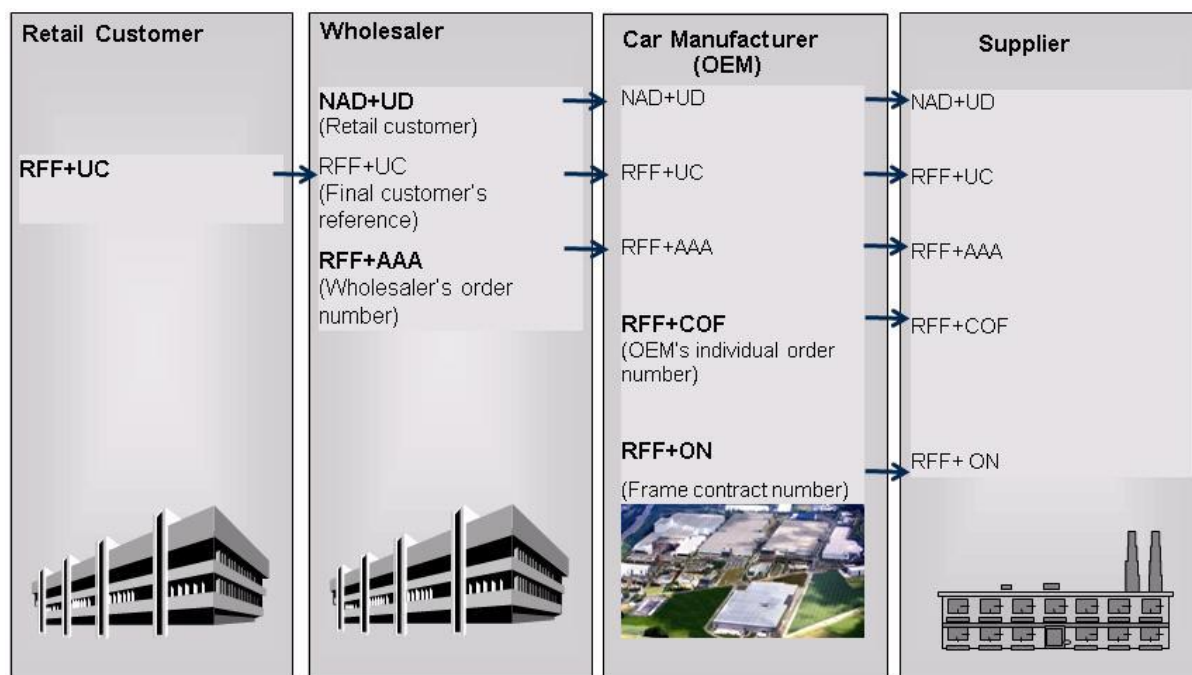


Figure 5 Reference fields for special process "Aftermarket"

NAD+UD – Retail customer

RFF+UC – Ultimate customer reference number, assigned by retail or wholesale partner – included on global transport label (GTL) so that the delivery can be correctly assigned to the end consumer

RFF+AAA – Order number of wholesalers, assigned by wholesaler

RFF+COF – individual order number generated by SAP at the OEM for the respective item

RFF+ON – Framework contract number, identical with framework contract number assigned to part and transferred in DELFOR

7 Annexes

VDA 4987 Part 2 - Global-DESADV V3p1-2023-06

VDA 4987 Part 3 - Detailed examples of packaging

VDA 4987 Part 4 - Detailed examples of packaging for JIT and JIS

VDA 4987 Rules for the sequence of CPS segments