

EDI Implementation Guidelines VOLKSWAGEN AG Logistic processes

**Manual for VOLKSWAGEN AG suppliers in the delivery process for production
material, genuine parts and stockable A-material**

The latest version of this document as well as message-related EDI guides
can be found on the internet at:
[http://www.vwgroupsupply.com/b2b/vwb2b_folder/supply2public/en/zusammenarbeit/
edi_elektronischer/downloads.html](http://www.vwgroupsupply.com/b2b/vwb2b_folder/supply2public/en/zusammenarbeit/edi_elektronischer/downloads.html)

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1. EDI at Volkswagen and Audi

Foreword

This document describes the delivery process for production materials and use of the electronic data interchange (EDI) message standard between the European plants of the **Audi, Bentley, Lamborghini, Volkswagen Commercial Vehicles and Volkswagen brands** except for VW Pamplona (henceforth called **VOLKSWAGEN** for reasons of simplicity) and their suppliers. Other brands and VOLKSWAGEN GROUP plants outside Europe have produced EDI guides on the basis of these EDI Implementation Guidelines. The EDI procedures relate to both production material, general material kept in store and for genuine parts (spare parts).

The application supplies the suppliers who been granted access to the application with the latest material requirement information (call-off data) and supports the stock management and delivery process.

The delivery and transport data expected at our plants can be prepared with WebEDI easily on the basis of our delivery instructions. Daily call-offs and the fixed AMES-T planned shipment are also taken into consideration in the processing. All necessary standard documents can be created with WebEDI. The complete integration of EDI data in the processes at the supplier is only ensured with the classic EDI.

In order to work with the WebEDI application, the supplier needs to be registered on the supplier platform and as a WebEDI user in our user management system with DUNS and supplier number (incl. index).

EDI - Electronic Data Interchange

Exchange of structured transaction and product data between external partners on the basis of standards

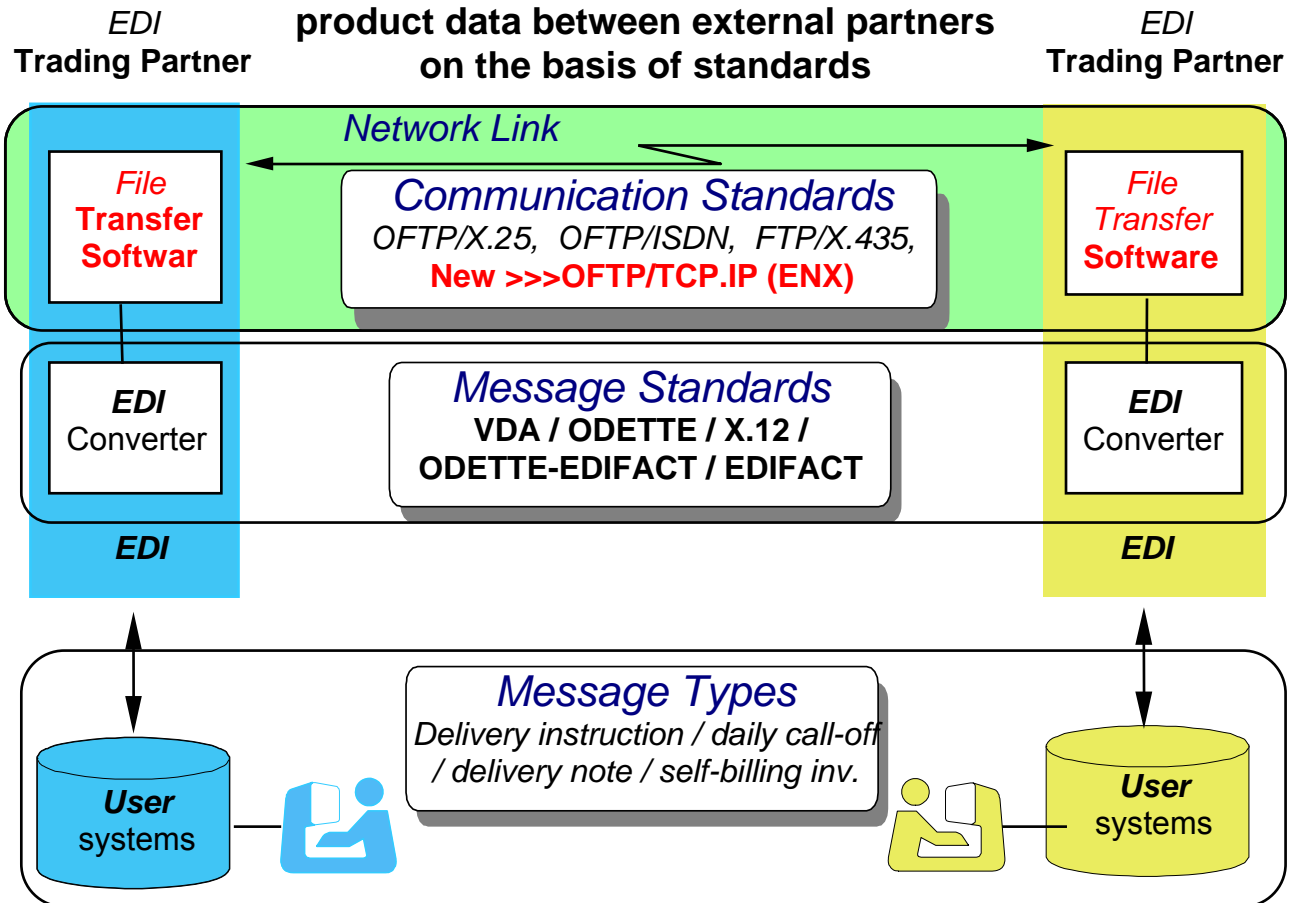


Figure 1: What is EDI?

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1.1. EDI Standards: VDA / ODETTE / EDIFACT

EDI - *Electronic Data Interchange* relates to the exchange of structured business data (such as Delivery Instruction, Daily Call-off, Dispatch Advice, Self-billing Invoice Message) between independent information systems of business partners, based on message standards (*VDA, ODETTE, EDIFACT*) and communication standards (*ODETTE File Transfer Protocol* as used by the European automotive industry).

EDI is required for lean and efficient business processes with our production material and parts suppliers and it is essential for good co-operation between customers and suppliers. EDI will benefit all partners. Volkswagen and Audi expect all suppliers to provide integrated EDI support for the whole business process. The EDI messages contain fully harmonised information for each step of the process. Suppliers will only realise the full benefit when all messages are fully integrated into their in-house systems.

VOLKSWAGEN uses the following EDI standards:

VDA	<i>Verband der Automobilindustrie</i> German Association of the Automotive Industry
ODETTE	Organisation for Data Exchange by Tele Transmission in Europe

As early as 1975, the **VDA** became one of the first big industry associations to initiate the development of message standards in order to improve communications and co-operation between manufacturers and their suppliers. In 1978, the Delivery Instruction was the first message to be implemented. In addition to message types and EDI protocol agreements, recommendations related to the supply cycle process have been compiled as a result.

The **ODETTE** initiative was launched in 1984 as European trade relations expanded. In 1986, the **EDIFACT** Initiative was founded with the objective of setting up a worldwide, cross-industry communications standard based on ISO 9735 syntax. EDIFACT/ISO syntax has a variable data structure. In the first phase, ODETTE developed its own message types compatible with EDIFACT/ISO 9735 syntax.

The migration from the old ODETTE message types to ODETTE/EDIFACT subsets has been largely completed. The VDA is to release recommendations for the subsets that are relevant to the VDA sector. The old VDA and ODETTE messages based on fixed structures will not be developed any further.

In the Joint Automotive Initiative (JAI), Automotive Subsets for EDIFACT messages that are most important for the delivery process were developed - starting in 2001 – with the cooperation of members from VDA-member companies.

The standard processes agreed within the VDA are the basis for consolidated and harmonised demands on EDIFACT. The VDA requirements should be implemented via ODETTE to ensure that ODETTE and subsequently the VDA are able to extract the information they require from the EDIFACT message. As part of the Pan European Group (PEG) involved in development of EDIFACT, ODETTE can define official EDIFACT subsets for message standards relevant to the automotive industry. These are subunits of EDIFACT messages complying with the mandatory/conditional rules.

Since not all of the subsets defined by ODETTE fully meet the requirements of VOLKSWAGEN GROUP, we are also using messages that comply with the EDIFACT standard, but not the ODETTE subsets from EDIFACT.

ODETTE/EDIFACT subsets have been used in the VW/Audi supply cycle process since 1995. In the future expansion of EDI communication, we are planning to implement further EDIFACT messages and, if available, suitable ODETTE/EDIFACT subsets. We again intend to use EDIFACT-based messages alongside VDA and ODETTE message types. It is planned to keep the VDA and ODETTE message types available after new messages are introduced. At VOLKSWAGEN, the "old" VDA message types with fixed data structure will remain in use until they are forced out of use by an expansion of data content.

In the medium term, we will adapt the EDIFACT message structures that are already set for Volkswagen to the global JAI EDIFACT subsets.

The ODETTE File Transfer Protocol (OFTP) has become the accepted protocol for transmitting files. The adoption of the OFTP In Europe, OFTP is also widely used outside the automotive industry.

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1.2. Overview of the VOLKSWAGEN EDI Implementation

The following information provides an overview of the stage presently reached in implementing EDI at Volkswagen/Audi. The table in section 1.2.5. indicates further enhancements as planned, involving additional EDI messages.

Other rules governing the supply cycle process at Volkswagen and Audi (e.g. General shipping regulations, Packaging instruction) should also be followed.

1.2.1. Delivery Instruction

More than 4000 suppliers receive a **Delivery Instruction** (*LAB-Lieferabrufdaten*) predominantly in **VDA 4905** format from Volkswagen/Audi. The EDIFACT-**DELFOR** has been offered alternatively since 2001.

The **Daily Call-off** (*FAB-Feinabrufe*) in **VDA 4915** format or the EDIFACT-**DELFOR-FAB** will only be implemented where the delivery process justifies the use of this message.

The **shipping instruction as electronic pick-up sheet** is used at VOLKSWAGEN as a shipping instruction in the AMES-T process. Volkswagen uses the ODETTE/EDIFACT subset **CALDEL/DELJIT** for the shipping instruction.

CALDEL, another **direct delivery instruction**, is used to control direct-from-supplier genuine parts deliveries and, in this case, supplements the delivery instruction.

The **Call-off in Production Sequence** (*PAB-Produktionssynchrone Abrufe*) is used at VOLKSWAGEN -only in the specific cases - in order related sequence control (JiT) of vehicle components. In the latest JiT installations, the ODETTE/EDIFACT subset **SYNCRO/DELJIT** is used for PAB and for module-specific forecast data.

1.2.2. Material Delivery

The various VOLKSWAGEN logistics concepts all require a complete and fully working EDI data exchange. EDI capability in generating and sending dispatch advice data is expected from all production material and genuine parts suppliers.

We require EDI dispatch and transport data for the traditional supply cycle to VOLKSWAGEN material receiving points and for deliveries to consignment stores or external supplier warehouses. Also, when deliveries are made in the AMES-T process, the delivery and transport data should be sent upon pick up. In this case, we expect **VDA 4913 version 3 or 4 or the EDIFACT-DESADV**.

We expect the **transport and shipment documents in VDA 4939** when EDI delivery note and transport data is transferred.

The goods delivered to VOLKSWAGEN AG are labelled with the ODETTE Transport Label that is identical to the bar-coded standard **VDA 4902 transport label or the JAI Global Transport Label**.

In the JiT process, a **cumulated delivery note based on Dispatch Advice VDA 4913** or EDIFACT-**RECADAV** will be created at VOLKSWAGEN/Audi. The cumulated delivery note is always transferred by Volkswagen to the suppliers.

Our area contract freight forwarders are included in the information system. They receive the order from the supplier in the form of a **forwarding order in the format of VDA recommendation 4922**. The freight consolidators receive a copy of the EDI dispatch and

transport data from VOLKSWAGEN. Suppliers should agree on an EDI connection with the responsible area contract freight forwarder. Alternatively VOLKSWAGEN can also transmit the delivery notes and the transport data to the area contract freight forwarders. In individual cases this has to be agreed with the responsible EDI coordinators of the labels.

In the AMES-T process, the carrier will receive an EDI transport order from our AMES-T system.

For each shipment (e.g. for each lorry), the area contract freight forwarder sends **freight data in VDA 4921 format** stating all shipments/delivery notes to Volkswagen. We use the Delivery data VDA 4921 to simplify the receiving routine of the total shipment on a particular transport unit.

We use the **Loading Device Data in VDA 4927** format to control the stock status and movements of our **packing aids (equipment)**. We expect our suppliers to be able to receive and print out the messages sent by us. Each month suppliers receive a stock consolidation report from us with movement notices.

All container information can (alternatively) be called up in the LISON Web application of our packaging management system. The call for empty loading device can only be sent via a **WEB application**. Loading device corrections may also only be sent via WEB application.

1.2.3 Volkswagen EDI Message Implementation Matrix

You will find the latest version of this implementation matrix as a separate document on the Internet.

Message	VDA (old structure)	ODETTE	EDIFACT/ODETTE Subsets
Message type Brief description	VDA recommendation VW implementation	Directory VDA recommendation VW implementation	EDIFACT identifier ODETTE identifier VDA recommendation VW implementation
Delivery instruction data LAB	VDA 4905 operative (*d)	DELINS VDA 4905/2 operative Since May 1st, 2008 no new connections. Effective from 1 December 2009 message type will be cancelled.	DELFOR DELINS V4R0 DELFOR D97A in use
Daily call-off data FAB	VDA 4915 operative		DELFOR DELINS V4R0 D96A DELFOR D97A in use
Delivery pre-advice NLK AV			DELFOR DELINS V4R0
	VDA 4905	-	
			DELFOR D97A Im Einsatz
Despatch call-off NLK VAB	-	-	GLOBAL DEJIT JAI EDIFACT D.04B; 2006
Kanban daily call-off data KANBAN			DELJIT DELINS V4R0 D96A -- DELJIT D97A in use
Shipping instruction data to supplier VAB For pick-up control with AMES-T			DELJIT CALDEL V1R0 -- DELJIT D97A in use
Genuine parts direct delivery For direct-from-supplier genuine parts shipments			DELJIT CALDEL V1R0 DELJIT D96 A (*d) in use
JiT call-off data Synchronised delivery, forecast data PAB, REF, SEV Utilisation concept with special JiT-SW			DELJIT D96A SYNCRO V3R1 DELJIT D96A and DELJIT D95 B in use

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Message	VDA (old structure)	ODETTE	EDIFACT/ODETTE Subsets
Message type Brief description	VDA recommendation VW implementation	Directory VDA recommendation VW implementation	EDIFACT identifier ODETTE identifier/directory VDA recommendation VW implementation
Dispatch and transport data MAT	VDA 4913/2, ff. operative (*d)	AVIEXP no VDA recommendation in use Since May 1st, 2008 no new connections. Effective from 1 December 2009 message type will be cancelled.	DESADV AVIEXP V5R1 D96A DESADV D98A in use
Consignment stocks and JiT process: Cumulated Delivery Note Cumulated delivery note (TSL)	VDA 4913/2 operative		RECADV RECADV D97A in use
Stock information VW/AudiEDL(external service provider)/consignment store – VW/Audi - supplier	MAT VDA 4913/2 operative		INVRPT
EDI shipping list	VDA 4912 operative		
Transport Label	VDA Transport Label VDA 4902/2 to be discontinued	- ODETTE-LABEL VDA 4902- 3 / 4(+KLT-small load container) Implementation requested, computerised processing at Audi	Global Transport Label Operative since 2/2003 parallel to VDA 4902 label
Forwarding order data DESADV for pick-up control with AMES-T	- VDA 4913 (instead of VDA 4920) operative		DESADV DESADV D98A in use
Transport information	- VDA 4921 operative		IFSSUM D95B CONSUM V1R0 Implementation planned

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Message type Brief description	VDA recommendation VW implementation	Directory VDA recommendation VW implementation	EDIFACT identifier ODETTE identifier/directory VDA recommendation VW implementation
Packaging data <i>Stock consolidation report = K</i> <i>Movement notice = B</i> <i>Call for empties = L</i>	- VDA 4927 K and L operative, B planned	- no message available	DIVERSE VDA project: Packaging data planned from 2006

1.3. WebEDI Implementation at Volkswagen

Implementing WebEDI allows all non-EDI-capable suppliers of the labels Volkswagen, Volkswagen Nutzfahrzeuge, Audi, Bentley; Lamborghini and Skoda to receive delivery call-off and daily call-off data as well as send delivery data. It is no longer necessary to send our call-offs by post or fax.

The users in WebEDI can also create all necessary paper documents and labels that accompany shipments.

The planned shipment data from AMES-T is also provided as required amounts in WebEDI.

2. The EDI-supported Business Process at Volkswagen

2.1. EDI in the Design and Engineering Process

Any design and engineering contract signed by a supplier and VOLKSWAGEN defines the rules and responsibilities which go with CAD/CAM data interchange.

Specifications on EDI of engineering data are not part of these EDI guidelines. Guidelines and information on EDI of engineering data are issued by CAD/IT integration.

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2.2. EDI in the Material Scheduling Process

In order to produce vehicles, components and parts in time, the total requirements need to be calculated well in advance and forecasted along the total value adding process chain to achieve compliance of the production capacities.

The requirement forecast covers several distinct planning periods. As the date of actual requirement draws closer, the forecast is narrowed down and adjusted to reflect the requirements for actual vehicle orders. Revolving over a period of six months and always based on the number of cars and models which the sales division forecasted, raw material and parts requirements are calculated. To do this, more than 150,000 versions and partly interrelated options have to be taken into consideration. The resulting volumes relate to the different planning horizons and have to be matched with the production capacities. Of course, the forecast figures will increasingly stabilise as actual customer orders replace the forecasted orders. Eventually, the requirement calculation in week n will show the parts requirement for production week $n+3$, fully based on specified vehicles as ordered by customers.

While these requirement calculations relate to the forecast of new car sales, additional volumes result from other sources, such as genuine parts sales, shipments of knocked down vehicles (CKD) to international assembly plants and other miscellaneous sales. The bill of material will be used to explode sub-assemblies in order to reach the parts level. Finally, the material follow-up analyst may add further miscellaneous parts requirements. Applying the order allocation key as defined by the purchasing department, the total requirements are now broken down to arrive at the actual order volumes of each supplier.

Unfortunately, it is difficult to avoid quantity changes and deviations as the forecast gradually moves on to reflect the concrete build program based on customer orders. Several reasons account for this: changes of the production plan at short notice, changes of the dates for production launch, total freeze for certain versions, changes in the sales program for volume markets because of late introduction or deletion of certain versions, incorrect forecasting of the likely demand for newly available versions and, also, not foreseeable adjustment quantities which the material follow-up analyst has to enter at short notice.

The order messages that are eventually transmitted to the suppliers, i.e. the normal delivery instruction, the daily call-off, direct delivery instruction and the sequenced call-off, reflect the degree of timeliness required. Messages used to manage the material supply process do not require special information retrieval procedures on account of trade or tax regulations. Retrieval processes may need to be implemented for vehicle-specific call-off data at JiT suppliers. These must be agreed between both parties.

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2.2.1. Delivery Instruction (Forecast / Scheduling)

The EDI **Delivery Instruction** format has replaced the former paper message VDA 4904 Delivery Instruction that had to be sent by post.

The Delivery Instruction shows a planning period of up to six months for every article number of series production material. For the immediately following 11 weeks, single calls are identified, stating the day the shipment is expected to arrive at the plant. Depending on the degree of scheduling efficiency to be achieved, several single calls may identify several arrival dates within one particular week. So as to synchronise with the calendar periods, each of the subsequent four monthly forecast periods represents either 4 or 5 weeks.

There is no structured forecast format for delivery instructions for genuine parts and stockable A-material. These genuine parts delivery instructions may include requirement figures for individual dates between requirement figures for periods.

The material requirement calculation program for delivery instructions always runs once a week, now including the vehicle build-program for the 3rd production week in line. Single calls are shown in the delivery instructions from the Monday of the directly following week. If no delivery has been recorded for a material requirement that was scheduled for a delivery date before the current requirement period, this will be entered as backlog in the delivery instruction. The total material amounts entered as backlog and urgent requirement (plus any material requirement for the following delivery day) should be shipped immediately. If necessary, the mode of shipment should be agreed separately with the responsible material follow-up analyst.

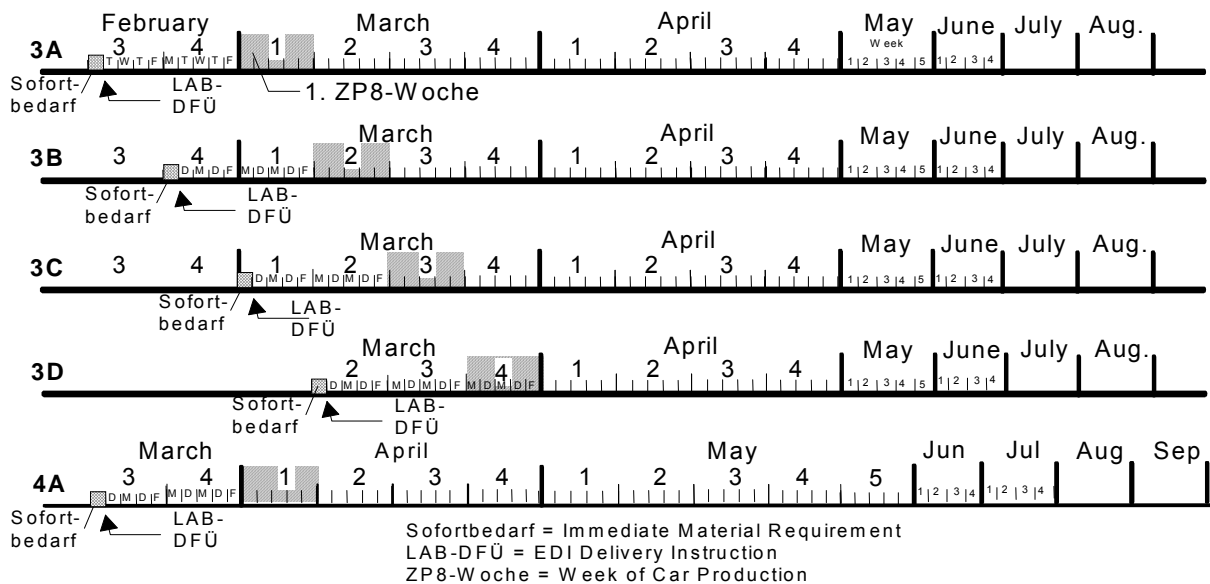


Figure 3: Timetable Delivery Instruction: Forecast and Program Scheduling

At the far end, the planning period will be updated once a month. According to the example given above, the monthly forecast for August shows up for the first time in the middle of February as the scheduling run 3a is processed. With each of the following scheduling runs 3b, 3c and 3d the weekly forecast period which has just passed is dropped. To compensate, with scheduling run 4a - which is processed in the middle of March - the full forecast month of September is shown for the first time.

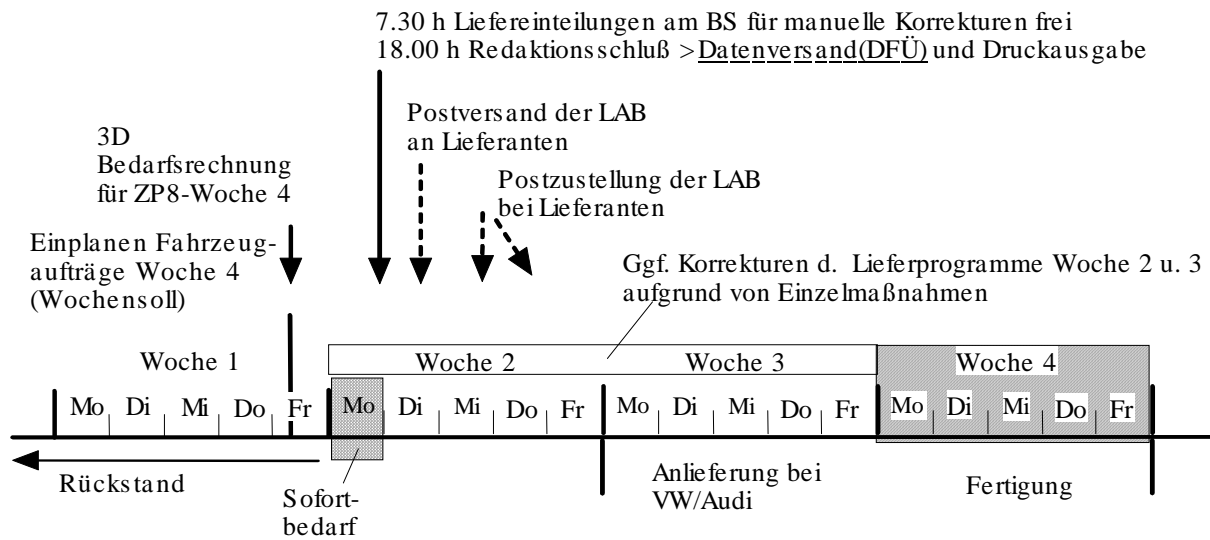


Figure 4: Timetable for Delivery Instruction: Influence of the production program

The Volkswagen delivery instruction is based on cumulative figures - FZ (Fortschrittszahlen). The cumulative figures (FZ) represent the cumulative quantities shipped and received from a defined point in time. For series production material, this is the inventory date (usually in October/November). The cumulative figures for genuine parts (unlike those for production material) represent the total quantity over the entire term of contract and are not zeroed at the VW inventory date. This method is the prerequisite for immediate and system supported synchronisation of the information systems at VOLKSWAGEN and those at the suppliers. The cumulative totals for each article number allow the exact comparison of the total quantities received by Volkswagen/Audi by the time a new delivery instruction is calculated and of the total quantities shipped by the supplier at the same point in time according to his records. The cumulative figures contain all positive and negative delivery records from the defined point in time to the creation date of the current delivery instruction.

The cumulative figures are affected by the following events:

- Material receipts will increase the cumulative figure; correspondingly, the quantity due will be reduced in the respective delivery instruction.
- Positive adjustments of material received increase the cumulative figure, negative adjustments cause a reduction of the cumulative figure.
- Shipments returned to the supplier, because of poor quality for example, will reduce the cumulative figure; correspondingly, the quantity due in will be increased in the next following delivery instruction.

When the cumulative figures of a particular part number at VOLKSWAGEN and at the supplier are to be synchronised, possible discrepancies between the two figures will indicate material in transit (MAT). To facilitate the crosscheck, the delivery instruction will always identify the number of the last delivery note received by VOLKSWAGEN. Where DELINS or DELFOR is in use the last three recorded delivery note numbers will be sent.

The requirement calculation is affected by material receipts at supplier-owned stocks (external service providers (EDL) or consignment stores). The material receiving point clearly distinguishes delivery instructions for such parts.

<u>Date</u>	<u>Cumulative figures for material receipts at VOLKSWAGEN</u>	<u>MAT</u>	<u>Cumulative figures for material shipped by supplier (VFZ)</u>
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20.11.95	EFZ: 19,900			100	Delivery note 123	Quantity 100	VFZ 20,000
21.11.95	Delivery note 123	Quantity 100	EFZ 20,000	0	VFZ: 20,000		
22.11.95	Delivery instruction run: EFZ cumulative since last inventory EFZ: 20,000			0	VFZ: 20,000		
23.11.95	EFZ: 20,000			500 1,400	Delivery note 124 125	Quantity 500 900	VFZ 20,500 21,400

Figure 5: Example for the development of cumulative figures - FZ

The supplier will receive delivery instructions at least once for every 4-week period. Additional weekly transmissions will occur only if in comparison to the preceding week the order quantity varies in excess of the permitted percentage as determined by the material follow-up analyst, or if technical changes have occurred, such as a change of the material receiving area for example.

The Delivery Instruction is processed in a weekly cycle, normally always on Monday. The supplier will receive a separate delivery instruction for each part/article number to be shipped to a specific plant. Also, a separate delivery instruction will be issued for fixed quantity orders, such as orders for test parts.

Any delivery instruction completely replaces the preceding one immediately.

Each Monday morning, the material follow-up analyst will find the delivery forecast on his terminal screen as it has just been processed by the information system, and he has all day to adjust this proposal on-line. On Monday evening, the delivery instructions are created and then sent by EDI / WebEDI. The delivery instruction documents sent by post normally go out on the following day.

In the case of unforeseen changes, the material follow-up analyst may very well transmit a new delivery instruction during the week, too.

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2.3. EDI in the Transport and Shipping Process

The VOLKSWAGEN transport and shipping processes demand full and timely EDI communication with the suppliers, in Germany already involving area contract freight forwarders.

The EDI procedures follow the different delivery processes used at Volkswagen / Audi:

- Traditional delivery to the plants and receiving points at VOLKSWAGEN (push principle),
- Delivery to consignment stores or external supplier warehouses (push principle)
- Direct assembly delivery for synchronised JIT ordering and delivery (JIT = Just In Time),
- Direct deliveries (AMES-T) to the VOLKSWAGEN plants and receiving points with optimised pick-up routes (pull principle),
- Direct deliveries of genuine parts shipments to the genuine parts customers (dealers and sales centres).

In separate sections, you will find specific requirements for the involvement of area contract freight forwarders, basics for deliveries to SEAT and Škoda, packaging concepts and how they are specified in EDI messages and EDI communication as well as EDI concepts for container management.

The EDI message types and documents used are described in separate message guides or partly in this document after the processes are looked at.

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2.3.1. WebEDI in the Transport and Delivery Process

The WebEDI application on the VOLKSWAGEN B2B supplier platform supplies our non-EDI-capable suppliers with the latest material requirement information and supports the stock management and delivery process for the supplier.

The delivery and transport data expected at our plants can simply be processed by the user (supplier) on the basis of our delivery instructions. Daily call-offs and the fixed AMES-T planned shipment are also taken into consideration in the processing. Our suppliers can also create all necessary standard documents (transport and shipment documents / labels) using WebEDI.

WebEDI supports the traditional delivery concept, delivery via consignment stores at VOLKSWAGEN and also the AMES-T process.

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2.3.2. Delivery to VOLKSWAGEN Receiving Points

Following the traditional delivery process to VOLKSWAGEN receiving points, the supplier has to provide the following in integrated, consistent form:

- EDI dispatch and transport data
- Transport and shipment documents according to VDA 4939 or dispatch advice document in VDA 4912 format,
- ODETTE transport label (corresponds with VDA transport label 4902) or global transport label (GTL).

All dispatch and transport data should be taken directly from the original EDI delivery instructions and daily call-offs sent by Volkswagen. EDI capability in generating and sending dispatch advice data is expected from all production material, A-material and genuine parts suppliers.

Volkswagen expects the delivery note and transport data to be complete and error-free and sent as early as possible, **i.e. immediately after dispatch from the supplier.**

The incoming delivery note and transport data is checked for form and – if possible – content upon receipt. Any errors found in the EDI data will be reported immediately to the supplier by e-mail.

In the AMES-T process with controlled pick-up, the transport and shipment documents should always be used with the in pdf417 encrypted VDA 4913 or DESADV data. The AMES-T documents with pdf417 that have been used so far will cease to be used according to a plan specified in the AMES-T project.

The transport and shipment documents with the VDA 4913 or DESADV data encrypted in pdf417 can be created with the VW TSB Generator. The TSB Generator is available free of charge for our suppliers so they can create the transport and shipment documents for shipments to VOLKSWAGEN GROUP plants. The TSB Generator can also be used to create transport and shipment documents according to VDA 4939 for shipments that cannot be controlled in the AMES-T process.

All our suppliers should label the packages or containers with the **ODETTE transport labels according VDA 4902** version 3 or version 4 for KLTs (small containers according VDA standard) or the **Global Transport Label**. The transport labels should be attached to the container or, where applicable, unit pack. All deliveries of production material to these material receiving points should have transport label VDA 4902 - 3/4 (ODETTE-Label) or the GTL. As a result, the EDI dispatch advice data in VDA 4913 format has to indicate the package serial number according to the rules on different packaging concepts (see guide for representation of packages in the EDI delivery note data).

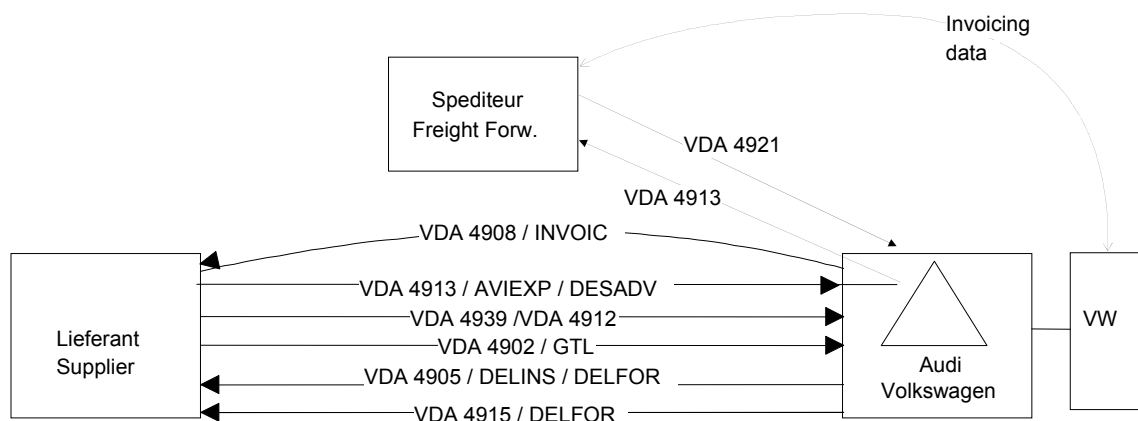


Figure 6: EDI minimum requirements in the traditional process of delivery to VOLKSWAGEN stores

Key reference is the unique shipment identification number (SLB number) that the supplier assigns and enters on the transport documents when EDI is used in processing. The SLB number for a shipment (between a loading point and a receiving point) covers one or more related delivery notes from a supplier. As soon as the shipment actually arrives for pre-registration in material receiving, the previously transmitted electronic dispatch and transport data can be retrieved from file by using either the carrier released bordero number (referencing the whole load, e.g. one truck) or the SLB number noted on the transport documents by the supplier as the common identifier.

Further organisational procedures:

- It has to be assured that all packages listed in the dispatch advice are actually part of the corresponding shipment to VOLKSWAGEN. Partial shipment of material volumes indicated in the dispatch advice are not permitted. Therefore, it must be ensured that the EDI shipment is only finalised after the loading procedure has been completed.
- A delivery note number should be assigned for each receiving point. All positions shipped to this particular material receiving area should be covered by only one delivery note number.
- In case the actual shipment does after all vary from the transport and shipping data which had been transmitted earlier, this should be **clearly indicated** on the cover sheet attached to the shipment. Such belated changes must be restricted to absolutely unavoidable exceptions.
- Receiving point codes to determine the receiving site/delivery addresses are transferred in the delivery instruction / daily call-off. The delivery addresses can be assigned from an address table stored on the VOLKSWAGEN supplier platform www.groupsupply.com. They can be used for address preparation in the transport and shipment documents, on the EDI shipping list and on the transport labels.
- In addition to the dock/gate (final destination) information, the special storage concepts at Audi require the storage location and point of usage on the Delivery Instruction and daily call-off. This information also needs to be transmitted back in the Dispatch Advice and the EDI shipping list / transport and shipment documents and on the transport label VDA 4902 / GTL.

To ensure that EDI dispatch advice data is available when needed, i.e. when the shipment arrives at the delivery receipts at VOLKSWAGEN it is essential that the EDI dispatch advice data is transferred as soon as the material is dispatched.

If the EDI messages are not available, the dispatch and transport data have to be entered manually from the shipping documents at VOLKSWAGEN material receiving pre-registration. This involves extensive additional costs which costs are handed over to the originator.

If discrepancies are found, corrections are made. The findings are recorded in discrepancy reports (Mehr-/Minderlieferungsanzeigen), which are mailed out to the supplier. Corrections are also documented in the weekly self-billing invoice, thus they are available to the supplier relatively quickly.

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2.3.3. Deliveries to Consignment Stores (Supplier's Material)

Delivery to consignments stores or to supplier warehouses managed by external logistics service providers is one of the VOLKSWAGEN logistics concepts. Consignment stores are stores in or close to VW plants that are operated and supplied with material by the suppliers, but are controlled by VW. The materials remain property of the supplier until they are issued at the production location. The transfer of ownership and the quantitative transfer into Volkswagen stock always takes place at 00.00 hours for all withdrawals of the previous day. The material is logistically received by Volkswagen without change of title/ownership but by applying the same material receiving routines as are used for material receipts in a Volkswagen store.

The process requires a close coordination of information between us and the supplier. The EDI delivery note provides the information for the material advice from the supplier to the consignment store. If the material receiving process "Consignment Store" is supported by EDI, the supplier sends dispatch advice VDA 4913 to Volkswagen. The EDI information on material entering and leaving the store and material in stock is sent from Volkswagen to the supplier in the format VDA 4913-2/3 and is to be used by the supplier to monitor stores, deliveries and payment.

An internal message is used to order stock dispatch from the consignment store.

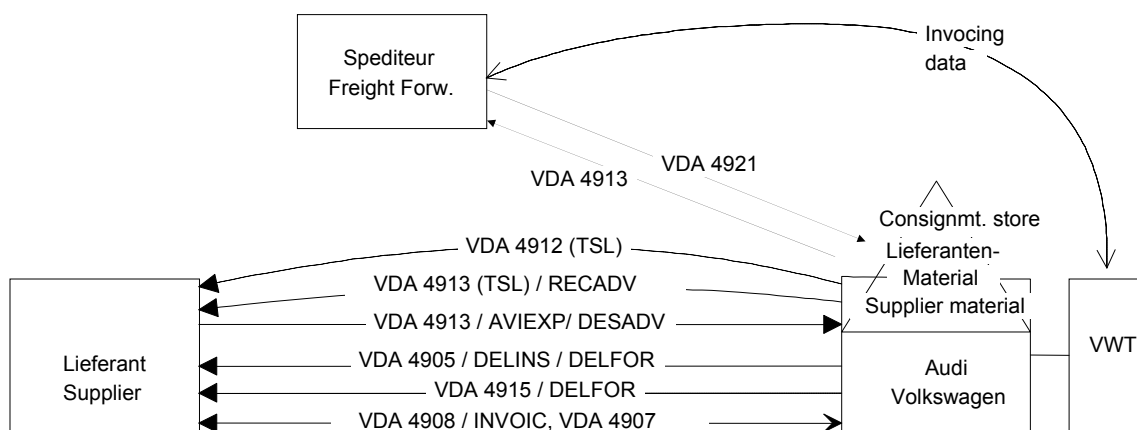


Figure 7: EDI and shipments utilising consignment stores (supplier's material)

In VDA 4913-2/3 dispatches are reported in transaction code 36 (VA 36), receipts in VA 30 and stock status in VA 35. Depending on the arrangement, this confirmation will occur either on the morning following the day on which the transactions took place or always on Monday morning for all the transactions of the previous week. Dispatches, receipts and stock status

figures will be combined in one data file, however, the supplier may decide in co-ordination with Volkswagen which of these transaction types can be selected.

The following information is part of the data which Volkswagen transmits to the supplier to confirm stock movements related to the VW-consignment store:

- Dispatch advice to Volkswagen: VDA 4913 – transaction code (VA) 36
This is transmitted daily from Volkswagen to the supplier to inform of material which was dispatched from the consignment store to Volkswagen during the preceding day and to indicate the resulting change of ownership.
- Acknowledgement of material receipt: VDA 4913 - VA 30
This is transmitted daily from Volkswagen to the supplier to inform of material which was received in the consignment store during the preceding day.
- Stock consolidation report: VDA 4913 - VA 35
The stock consolidation report will be transmitted from Volkswagen to the supplier together with the above information.

When material is transferred from consignment stock to Volkswagen, a NEW delivery note number is assigned. This will then be the reference key for all following operations, including the invoice and the self-billing invoice procedures. In addition, we will transfer the delivery note numbers (old) originally assigned by the supplier in the dispatch advice, for VDA 4913: Record type 714, field 22.

In order to avoid overlaps of NEW and OLD delivery note number sequences, every supplier who dispatches to a consignment store will have to define one specific delivery note number sequence NEW that covers all plants and should be used for the "VW consignment store" procedure. The number sequence has to be made known to the material follow-up analyst who is responsible for the consignment store. The unique shipment identification number in the dispatch report is a control identifier used by VW internally. The delivery notes for the day are bundled under the SLB number. Both numbering sequences are managed by Volkswagen and are specific to an individual supplier.

Suppliers, who are not yet capable of processing these EDI messages, may - for the time being - receive the reports on Stock Dispatch to Volkswagen, Acknowledgement of Material Receipt and the Stock Consolidation Report faxed on paper. We use the structure of the Shipping List VDA 4912 to create this document on paper.

All specifications valid for the delivery process to Volkswagen receiving points regarding EDI dispatch advice data, EDI shipping list VDA 4912 and the Transport Label VDA 4902 apply in full to deliveries to consignment stores.

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2.3.3.1. Deliveries via External Supplier Warehouses (External Service Providers)

External service providers (EDLs) are logistics companies in the immediate vicinity of the VW plants that take care of storage tasks for VOLKSWAGEN and deliver to the factory and assembly units as required. The material flow to manufacturing is controlled by sending delivery orders to the EDL, using the proprietary INEAS standard at present. Thus it becomes possible to forward smaller lots into manufacturing than direct shipments from the supplier would allow for.

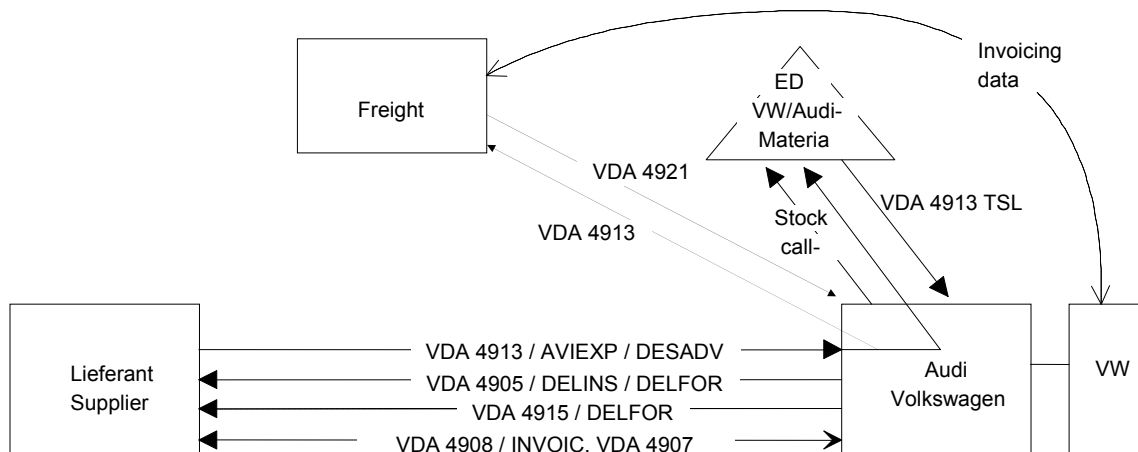


Figure 8: EDI and the EDL material receiving process, material owned by VW (e.g. to ELZ, Factory XC)

The process involving EDLs when the material is property of the supplier is in principle the same as the process for consignment stores. The main difference to consignment stores is that an EDL store and its information systems are operated by the a third party (the EDL).

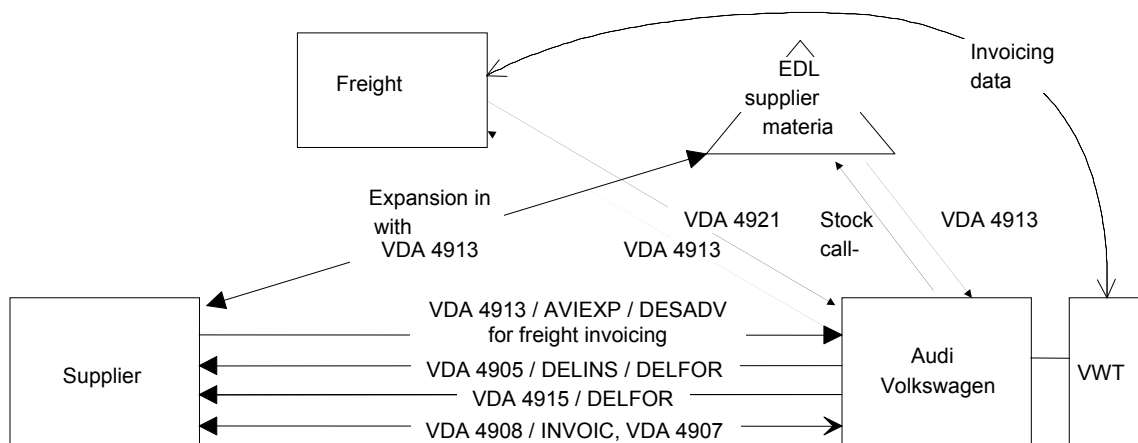


Figure 9: EDI and the EDL material receiving process (material owned by supplier)

In the EDI process, the supplier sends EDI dispatch and transport data either to Volkswagen or direct to the EDL, depending on the arrangement with the EDL, and receives information from the EDL in the form of acknowledgement of material receipt, stock status and dispatch advice. The self-billing invoice sent to the supplier will then reflect the deliveries from the EDL to the VOLKSWAGEN material receiving area and show the specific delivery note number as assigned by the EDL. Therefore it is important that the supplier receives this number with advice of deliveries to VOLKSWAGEN. VDA 4913-2/3 format is used for information from the EDL to the supplier. As an alternative, the information can be faxed. The EDL sends a VDA 4913-2/3 to notify VW of deliveries to a VOLKSWAGEN material receiving point.

The EDI dispatch and transport data from the suppliers is sent either direct to the EDL or to Volkswagen if the EDL has requested a message forwarding arrangement from the responsible factory logistics department or system manager. For shipments from a supplier containing both material for a VOLKSWAGEN material receiving area and material for an EDL, both parts of the shipment may be included in one EDI file sent to VOLKSWAGEN. VOLKSWAGEN forwards the relevant sections to the EDL. This method simplifies the dispatch process at the supplier and material registration process at the EDL.

The following rules should be followed when forwarding dispatch and transport data:

- Only the dispatch advice data (record types / segments) that can be identified as being for an EDL material receiving point should actually be forwarded to the EDL.
- The data records and segments that concern the EDL should be forwarded to the EDL unchanged.
- Record types 711 and 719 should be sent by Volkswagen to the EDL with the version number as sent by the supplier unchanged.
- The data transmission number old/new from Volkswagen to the EDL should be taken directly from the supplier's transmission.
- The transmission file from VW to the EDL has file name "DFR.R11sid.FR2300A" — 'sid' stands for the StationID of the EDL.
- It is forwarded to the EDL immediately on receipt from the supplier.

All specifications valid for the delivery process via Volkswagen receiving points regarding the EDI shipping list VDA 4912 / transport and shipment document 4939 and the transport label VDA 4902 / GTL also apply to EDLs.

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2.3.4. Pick-up Control (AMES-T)

At VOLKSWAGEN, the **AMES-T process** is currently handled with selected carriers. The most important feature of the AMES-T processes is the punctual pick-up. The carrier is mainly responsible for the control of the process. The pick-up control is carried out both with direct delivery to VW receiving points and also with deliveries via EDL.

The freight consolidator has additional functions in this case (e.g. monitoring of quantities and containers). A separate manual provides details of differences between the "AMES-T process at Volkswagen" and the standard process. Therefore no further details need be mentioned here.

2.3.5. JiT Delivery

The JiT process at VOLKSWAGEN supports order-driven delivery of components in sequence of production and is only used in certain specific cases. The process concept "Kaufteile-Abwicklung bei JiT-Anlieferung" (JiT process for purchased parts) is used for the installation of new JiT processes. For a description of the JiT process and with the EDI procedures and message types used see the document "Kaufteile-Abwicklung bei JiT-Anlieferung von einfachen und variantenreichen JiT-ZSBs" (Processing of supplier parts in JiT deliveries of simple and multi-variant assemblies).

2.3.6. ŠKODA and SEAT

EDI dispatch advice data for ŠKODA and SEAT from German suppliers can be transmitted with a separate file name taking certain special points into consideration.

The host system for receiving dispatch advice data for ŠKODA is a Volkswagen group information system running in the information processing centre (IVZ in Wolfsburg). The dispatch advice data should therefore also be sent to the IVZ in Wolfsburg. ŠKODA suppliers, who already send dispatch advice data to Volkswagen, should contact the responsible person at Volkswagen. After entering the authorisation the delivery note data can also be sent operationally for ŠKODA. The EDI procedures for Volkswagen are fully compatible with ŠKODA. Please be aware of the ŠKODA specific supplier codes.

The host system for receiving dispatch advice data for SEAT, VW NAVARRA and GEARBOX runs in the IVZ in Barcelona. The EDI dispatch advice data has to be routed through the IVZ in Wolfsburg to the IVZ in Barcelona, using the OFTP routing function. The plant code ("Werk Kunde") is used to distinguish between the three business units in Spain.

The EDI data is used at SEAT, VW NAVARRA and GEARBOX just for material management purposes (material in transit), not for the material receiving process. Furthermore the VDA 4913-data will be forwarded to the area contract freight forwarder (carrier) for SEAT, VW NAVARRA and GEARBOX who will add transport and invoice relevant information before transmitting the extended message format to the in IVZ Barcelona, especially for usage in material receiving. The EDI dispatch advice procedures (VDA 4913) are fully valid for SEAT. Please make sure you use the special SEAT 5-digit supplier codes which are plant-specific. The data element "Werk Lieferant" ("plant code") is therefore not relevant.

2.3.7. Incorporating Carriers in the Traditional Delivery Process

VOLKSWAGEN uses area contract freight forwarders to pick up supplier dispatches for VOLKSWAGEN. Material may be forwarded either in the form of a direct shipment or in the form of a consolidated shipment. The direct point-to-point shipment is sent directly from the supplier to VOLKSWAGEN. This will be the case if the volume of a shipment amounts to a full lorry load or fills a railway freight car, regardless of whether the material will have to be unloaded in different material receiving areas of VOLKSWAGEN plants. In the case of a consolidated shipment, the forwarder will combine materials from several suppliers in order to forward a full lorry or railcar load to VOLKSWAGEN. A consolidated shipment can also go direct to a destination plant (without reloading at a CC).

When ordering a transport, the supplier usually initiates shipments by issuing a forwarding order to the carrier one day before. The forwarding order in accordance with VDA recommendation 4922 should be used for transport orders to our contract freight consolidators. The forwarding order/waybill is related to a shipment and contains an SLB number if the dispatch and transport data are to be sent to VOLKSWAGEN electronically. A consolidated shipment therefore has several SLB numbers – one for each forwarding order/waybill.

VOLKSWAGEN requires their suppliers to send the EDI dispatch and transport data for direct and consolidated shipments to VOLKSWAGEN **and at the same time** to the responsible area contract freight forwarder. The EDI connection should be agreed on between suppliers and VOLKSWAGEN. VOLKSWAGEN and our freight consolidators have jointly decided to use only VDA 4913 instead of VDA 4920 for forwarding order data from the supplier to the freight consolidator. Alternatively the VDA4913 data can be sent by VOLKSWAGEN to the area contract freight forwarder as agreed with the EDI coordinators of the labels.

The EDI data sent to Volkswagen and the data sent to the freight consolidator should be identical (record types 711 to 713) We therefore recommend that suppliers create the VDA 4913 for the freight consolidator as a copy of the VDA 4913 to VW.

The time aspect is especially critical in point-to-point deliveries. The EDI data should be sent immediately on dispatch of the shipment. The transport data also needs to be reliable and final at the time of transmission as we do not receive additional delivery data from the carrier for direct deliveries. **The message should definitely be sent immediately after dispatch of the shipment. If it is sent any later it must be assumed that the data will not be available when the delivery arrives at VOLKSWAGEN.**

VOLKSWAGEN expects the carriers to use the EDI message **Transport Information** VDA 4921. The message includes transport data and the information of all delivery notes which are on the load, for example, one lorry. Along with the listing of all delivery notes for a lorry, the transport data is created from the supplier's dispatch and transport data order by an automated process and the carrier's transport data is added. The delivery data and the dispatch and transport data is also used for direct computer-controlled settlement of freight charges.

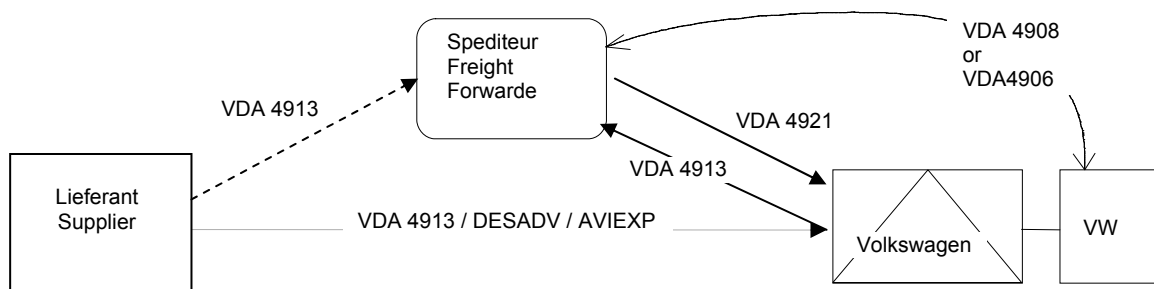


Figure 10: Carrier involvement in EDI (e.g. to plant 11)

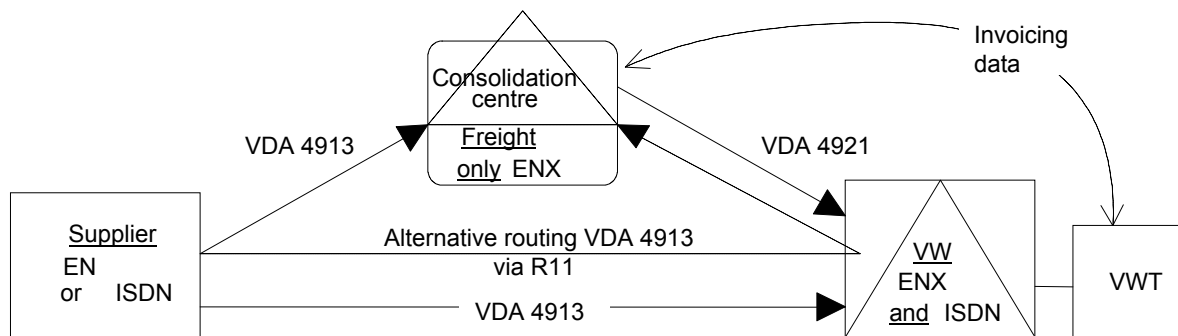


Figure 11: EDI transmissions to carriers with routing via VW

2.3.8. Inclusion of Carriers in the AMES-T Process

The project AMES-T (Advanced Mobility Engineering and Services for Transportation) is being implemented at Volkswagen Group to improve supply reliability, reduce freight costs and allow transparent material tracking. Carriers and suppliers will have a more intensive involvement in the expanded information flow within the shipment and supply process. The process is described in the AMES-T logistics manual found on the Volkswagen B2B-supplier platform.

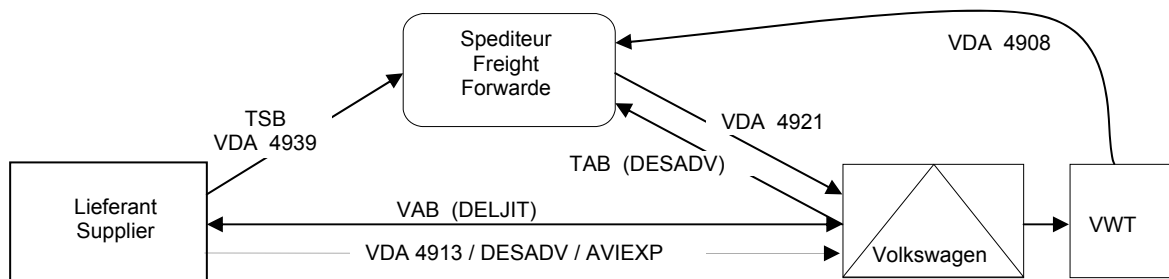


Figure 12: EDI transmission in AMES-T process

The transport and shipment documents according to VDA 4939 are particularly important in the AMES-T process. In AMES-T process, the transport and shipment documents need to store the dispatch advice data (VDA 4913 or EDIFACT DESADV) as a two-dimensional pdf417 code.

VOLKSWAGEN provides a free software tool (TSB Generator) that you can use to create the transport and shipment documents incl. the pdf417 codes from an EDI message — in

accordance with our EDI guides for delivery note and transport data VDA 4913 or EDIFACT DESADV. The tool can be downloaded on the following page: www.tsb-generator.de

EDI partners, who do not want to use our “VW TSB Generator” tool should design the TSB according to our specifications. You will find the implementation guidelines for creating the transport and shipment documents according to VDA recommendation 4939 in the IS systems of the suppliers on our B2B-supplier platform.

The TSB Generator can also be used for creating documents that are used in the AMES-T process.

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2.4. Rules Regulating the Representation of Packages in Dispatch

Shipments and deliveries to VOLKSWAGEN need to be accompanied by EDI messages and documents from which the packaging structures can be derived and recognised. The structuring regulations are laid down in separate guides with illustrated examples of possible packaging cases.

The following goals can only be reached if these structuring regulations are followed and observed:

If the VDA 4939 transport and shipment documents are created with the VOLKSWAGEN TSB Generator, the package data need to be prepared in the VDA 4913 input file or EDIFACT DESADV exactly as specified in our guidelines. Otherwise no satisfactorily structured printout can be achieved on the documents.

The regulation for the structuring of the EDI delivery note data is described in detail in the following guides:

- Package listing in the delivery note data VDA 4913/4 and
- Package structures in the VW EDIFACT DESADV

The structuring regulations also form an additional guide on how information should be set out on the EDI-delivery note VDA 4912 and on the item sheet in the shipment documents according to VDA 4939 (transport and shipment documents).

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2.5. Packaging Control (Container Control)

The packaging information is sent to the suppliers as a packaging agreement in the Internet application LISON for the Container Management Process. It is binding. The packaging agreement is produced and sent once for new parts and in the case of changes. The packaging agreement will also be transmitted in the Delivery Instruction, provided such information applies to the particular part or article number. Packaging records and packaging segments will not be sent if there is no packaging agreement for the parts.

The packaging agreement must be adhered to. The packaging information should be given completely and correctly in the delivery and transport data on the transport and shipment documents and on the transport label. In doing so, the following aspects have definitely to be observed:

- Depending on the specific supplier plant and/or receiving plant and for each usage code, the packaging agreement for a particular article number may vary.
- Should shortages prevent the supplier using packaging as specified in the packaging agreement other qualified packaging may be substituted with the consent of the container owner. Such substitute should then be identified in the delivery note, the Shipping List VDA 4912, the dispatch and transport data and, also, on the transport label.
- For one particular part number item in the delivery note, the packaging agreement may in specific cases identify several different types of packaging, for instance carrier pallet, small load containers, frames and unit load plate. All of these should be transmitted with the Dispatch Advice VDA 4913,
- The supplier has to make certain that the packaging code used does fully comply with the packaging agreement and the information in delivery instruction. For example: VW0001 and not VW1, 006428 and not 6428 must be transmitted,
- To assure qualified support of the container stock control and container allocation at VOLKSWAGEN the supplier number including the index must be identified on the transport label. The index should also be indicated in the Dispatch Advice VDA 4913, record type 712, location 14 / in the LOG+9 segment of DESADV and in the EDI Shipping List VDA 4912.

To control the container stock, separate accounts are kept for each supplier plant and each type of loading device. The packaging data transmitted to VOLKSWAGEN thus forms the basis for the return shipments and for the monthly consolidation of container stocks in collaboration with our suppliers.

The whole process of "packaging control and allocation at VOLKSWAGEN" will not be affected by the introduction of EDI and the handling instructions published by Materiallogistik, will always remain valid in their latest version.

Identification of one-way packaging

The packaging agreement defines which VOLKSWAGEN loading devices should be used for each material/parts number. In some exceptional cases, supplier specific (one-way) packaging may be used to pack parts. Even though these containers are not carried in our packaging catalogue, they still have to be defined in all documentation and all messages transmitted to us.

Any non-VOLKSWAGEN loading devices have to be specified according VDA recommendation 4913, attachment 10, Pos. 11. The terms for one-way and loaned

packaging (not property of VOLKSWAGEN) are lists in our guide for delivery note data VDA 4913 (appendix).

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3. EDI Implementation Instructions

3.1 VOLKSWAGEN EDI Standards Implementation Guidelines

This document contains neither a general description of the structure of the VDA / EDIFACT nor a detailed description of individual message types.

VDA Recommendation 4900 and other sources describe the structure of EDIFACT and ODETTE messages based on ISO 9735.

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3.1.1 File Naming Conventions at VOLKSWAGEN

When exchanging electronic data with Volkswagen, it is mandatory that only messages of the same type are included in one particular data file. When sending and receiving files, each message type has to be identified by using the correct file name as specified by Volkswagen. This rule also applies to the transmission of ODETTE/EDIFACT messages. In other words, different message types may never be combined in one transmission file. The file name is checked on receipt to determine whether it is a valid file name. VW's internal processing of messages is controlled by file names. For this reason, the responsible party at Volkswagen has to be informed of any changes in regard to message identification, for example, version changes.

The EDI data file names at Volkswagen have a defined structure. The file name consists of three qualifiers separated by full stops:

Dsk.sidsid.aaaaaa.ma

Explanations:

D	Identifier "D" for file
sk	2-digit system code
.sid	3-digit station ID of the sending party
. sid	3-digit station ID of the final receiving party (see also addressing/routing in group)
. aaaaaa	6- or 7-digit code set by system responsible at VW (e.g. name of procedure)determined identification of the news type
. . .ma	a client code can be added for internal control.

For example:

DUC.KEYZ01.VDA4905.VW	(Delivery Instruction from VW in VDA 4905)
DFC.Z01R11.VDA4913.AU	(Delivery Instruction to AUDI AG in VDA 4913 Győr)

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3.1.2 The EDIFACT / ODETTE Service Segments

VOLKSWAGEN uses the standard separators. The segment UNA is therefore not sent and should also not be sent in the files transmitted by the EDI partner.

Service segments and service segments sequence according to VDA recommendation 4900 - EDIFACT service segments in ODETTE
VW supplier

L e v e l				Seg- ment	Ve rsi on	M/ C	Re- peat	Data definition	
0	1	2	3	4					
0					UNA	C	1	Separator segment (is not sent and must not be transmitted by the supplier!)	
0					UNB	1	M	1	Transmission header (once per transmission) 1st segment in any transmission
	1				UNG	C	1	Header segment message group (never to be transmitted or processed)	
		2			UNH	M	1	Message header segment (once per message)	
			X		BGM			Application data (example: DELFOR)	
		2			UNT	M	1	Message end segment (once per message)	
	1				UNE	C	1	Trailer segment message group (never to be transmitted or processed)	
0					UNZ	1	M	1	Message data - trailer segment (once per transmission) last segment in any transmission

Service segment definition for transfer from VW to partner

Definition of segment UNB

Transmission header segment

Tag	Data element	lgth	M/ C	Description/data content
0001	Identifier	a4	M	"UNOA" identifier of the character set used in the message
0002	Version number	n1	M	"2"
0004	Sender identification	a35	M	ODETTE-ID of the transmitting IVZ at VW, see also <i>section 'Addressing/ Routing in Volkswagen Group'</i> Example: "O0013000001VW□□□□□□R11"
0010	Recipient identification	a35	M	ODETTE-ID of the partner or as defined by the partner (in the test file DDF.R11sid.TESTODT: "O0013VWSENDETESTR11")
0007	Qualifier recipient identification	a4	C	A qualifier for the recipient name can be agreed for this item if the Odette ID is not used as the recipient.
0017	Process date of message	n6	M	YYMMDD
0019	Creation time of message	n4	M	hhmm
0020	Reference number	a14	M	Transfer reference number is allocated by data sender.

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3.1.3 Delivery Instruction

Volkswagen transmits the Delivery Instruction in VDA 4905/1 format and alternatively in the EDIFACT format DELFOR and the ODETTE format DELINS in accordance with VDA 4905/2.

3.1.3.1 Delivery Instruction VDA 4905/1

VDA 4905 is used by Volkswagen either as

- a (standard) forecast delivery schedule with incoming cumulatives or as
- a delivery preview with requirement cumulatives within the JIT process

The implementation regulations for the VDA 4905/1 in the delivery instruction area and in the JiT delivery preview area are documented in specific guides. You will find the guides on the Volkswagen B2B supplier platform.

Additional information on the formats and specifications for important data elements of the delivery instruction are also documented in the general data descriptions.

3.1.3.2 EDIFACT DELFOR Delivery Instruction

Volkswagen transfers the EDIFACT message DELFOR alternatively to the delivery instruction in VDA 4905/1 format. As with VDA 4905, the DELFOR is used either as

- a (standard) forecast delivery schedule with incoming cumulatives or as
- a delivery preview with requirement cumulatives within the JIT process

The implementation rules for the EDIFACT DELFOR delivery instruction are given in a separate guide. You will find the guide on the Volkswagen B2B supplier platform.

3.1.3.3 Delivery Instruction VDA 4905-2 (ODETTE DELINS)

Alternatively to the delivery instruction in VDA 4905/1 format, Volkswagen is transmitting the ODETTE-format DELINS in accordance with VDA 4905/2 for the time being. Since May 1st, 2008 new connections with this message format haven't been set.

VOLKSWAGEN will assign a distinct delivery instruction number to each article number. In compliance with the VDA recommendation, the identifier "ARD" is entered under delivery instruction number (1004) in the **MID segment**. The delivery instruction date (2007) and time will not be transmitted with the MID segment!

The delivery instruction number and the delivery instruction date will be transmitted in the ADI segment for each article number.

Segment and segment sequence in Delivery Instruction VDA 4905-2

VW supplier

Level	Seg- ment	Ver- sion	M/ C	Re- peat	Data definition
0 1 2 3 4					
0	MID	03	M	1	message definition (once per transmission) 1st record in any transmission
0	SDT	03	M	1	supplier information (once per transmission) always follows MID
0	MDT	03	C	1	manufacturer data (not to be transmitted)
0	BDT	03	M	1	customer data (once per transmission) always follows SDT
0	ARI	03	C	1	Additional instruction data (not to be transmitted)

1	CSG	03	M	R	Recipient data (once per material receiving area) always follows BDT
2	<i>ITA</i>	03	C	1	<i>invoice recipient (not to be transmitted)</i>
2	ARD	03	M	R	article data (once per article number) always follows CSG may also follow ADI
3	PDI	03	M	1	preceding delivery instruction (once per article number) always follows ARD
3	SAD	03	C	1	additional article data (once per article number) always follows PDI
3	FTX	03	C	1	text related to article number (3 times per article number) may follow SAD
3	DST	03	C	1	dispatch status (once per article number) may follow FTX, SAD
3	PDN	03	M	R	delivery note recorded last (3 times per article number) may follow DST, PDN
3	<i>SID</i>	03	C	1	<i>purchase commitment (not to be transmitted)</i>
3	DEL	03	M	R	requirement status (n times per article number) always follows PDN may follow DEL, DST
3	TCO	03	C	1	packing data (n times per article number) may follow DEL, TCO
3	ADI	03	C	1	delivery instruction number (once per article number) may follow DEL, TCO
0	<i>DLP</i>	03	C	1	<i>transport transfer agreement (not to be transmitted)</i>
1	<i>FTX</i>	03	C	1	<i>text with general information (not to be transmitted)</i>

* Seg. DST and PDN are not sent for new parts. For each article number and supplier, they are sent for the first time after the first receipt of the items has been registered.

Seg. DEL

Code 2803: Arrival date

Volkswagen transmits the date of a delivery instruction here. In case a call-off quantity key (unequal blank) is shown in tag 7803, the date will be transmitted equal "000000".

Code 2836: forecast period

A forecast period may be transmitted alternatively to call-off date. However, the forecast period will never be transmitted in the same segment as the call-off date, but will always be included in a segment following DEL.

Code 7803: call-off quantity key

Volkswagen uses the following call-off quantity keys:

- blank normal requirement
- 3 back log
- 4 immediate requirement
- 6 no requirement

If a call-off quantity key is transmitted, the call-off date will be transmitted equal to "000000". Additional information on the formats and specifications for important data elements of the delivery instruction are also documented in the general data descriptions.

Example of an ODETTE - DELINS Delivery Instruction VDA 4905-2 at VOLKSWAGEN

```

UNB+UNOA:1+00013000001VW          R11+0099990000000000029R88OD-
  ID+960324:0963+00006'
UNH+1+DELINS:3::OD'
MID+ARD'
  used in the

```

**< Delivery Instruction Number is not
MID segment, but in the ADI segment.**

```

SDT+543210'
BDT+VW AG+
CSG+12+20554'
ARD+ EQC 3F3 003 44+:KGM+000001' < Note: Blanks are an integral part  
of the VW article number!
PDI+000000006+960215'
SAD+1+1252:SCHULEK: (0511) 432-3223+03'
FTX+AB MAI UMSTELLUNG IN: EQB 3C2 002 59:STO3ZF100RB 2,0 X
  370'
DST+960317+:187930'
PDN+00032933:960317+13290'
DEL+960324+31710::3'
  with

```

**< 3=backlog, 4=immediate requirement
date of transaction 24/03/96
delivery date 12/04/96
requirement period week 22 to 26 / 96**

```

DEL+940412+45000'
DEL+:::94229426+45000'
DEL+:::94279430+45000'
DEL+940511+60000'
DEL+:::94369439+38352'
TCO+:VW0043++15000'
TCO+:VW0044++60000'
ADI+0000000007+940323'
  each article number.
CSG+12+20720'
ARD+ 311 911 444+:PCE+000001'
PDI+.....
.....
.....
ADI+000000013+960323'
UNT+70+1'
UNZ+1+00006'

```

**< Data related to the
packaging to be used
Delivery instruction number and date
will be applied and transmitted with**

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3.1.4 Daily Call-off

Volkswagen transmits the **Daily Call-off** in **VDA 4915-1/2** format or in the EDIFACT format DELFOR.

3.1.4.1 Daily Call-off VDA 4915

The daily call-off VDA 4915 is used either as

- a (standard) forecast delivery schedule with incoming cumulatives or as
- a delivery preview with requirement cumulatives within the JIT process

The differentiation is carried out via the usage code on the parts level.

General Directions

Any changes to the daily call-off will be transmitted under a new transmission identification. There will be no daily call-off cancellations.

3.1.4.2 Daily Call-off EDIFACT DELFOR

Volkswagen transmits the EDIFACT DELFOR daily call-off alternatively to the daily call-off in VDA format. As with VDA 4915, the DELFOR is used either as

- a (standard) daily call-off with incoming cumulatives or as
- a daily delivery preview with requirement cumulatives within the JIT process.

The implementation rules for the EDIFACT DELFOR daily call-off are given in a separate guide. You will find the guide on the Volkswagen B2B supplier platform.

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3.1.5 Dispatch and Transport Data

Volkswagen can receive the delivery note data in VDA format 4913 or in EDIFACT format DESADV from suppliers.

3.1.5.1 Dispatch and transport data - Dispatch Advice VDA 4913

Depending on the process, Volkswagen will accept dispatch and transport data according to VDA 4913 versions 3 and 4. VDA 4913 may also be used for deliveries to Škoda.

The delivery and transport data VDA 4913 implementation rules are given in a separate guide. The data structuring rules "Package representation in the delivery note data VDA 4913/4". You will find both guides on the Volkswagen B2B supplier platform www.vwgroupsupply.com.

3.1.5.2 Dispatch and Transport Data - EDIFACT DESADV

The delivery and transport data EDIFACT DESADV implementation rules are given in a separate guide. The data structuring rule "DESADV package structures and required segment sequences" should also be observing. You will find both guides on the Volkswagen B2B supplier platform.

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3.1.6 Consignment Stock Information / JiT - Cumulated Delivery Note Data

In consignment stock and Just-in-Time processes Volkswagen sends goods receipts registered at VW in the form of a cumulated delivery note (TSL) to suppliers in format VDA 4913. Alternatively EDIFACT Format RECADV is also used for JiT. Consignment stock reports may currently only be sent in VDA format.

3.1.7 Documents Accompanying Shipments

Whenever the deliveries are sent to Volkswagen, transport and shipment documents in accordance with VDA 4939 should be used **exclusively**. The usage of the EDI shipping list VDA 4912 will still be accepted for a certain transition time. The delivery note DIN 4991 is not expected. The receiving plants expect a single copy of the transport and shipment documents or EDI shipping list.

If shipments originate outside Germany, the sender has to assure that the transport and shipment documents or EDI shipping list complies with legal requirements and he should also enquire whether additional copies have to be submitted to the local authorities.

3.1.7.1 Transport and Shipment Documents (TSB) VDA 4939

The TSB VDA 4939 consists of a transport master sheet, shipment master sheets and shipment item sheets. The transport and shipment document is required for the controlled pick-up with automated collection of the document data in the AMES-T process. On the transport and shipment master sheet, the data of the pick-up transport or the shipment should be saved in the two-dimensional code pdf417 by the person creating the documents and printed out. The data is collected by the carrier automatically and compared with the target data upon pick-up.

If the EDI transmission does not reach the material receiving system in time, material receiving will use the shipment item sheet to recapture the dispatch and transport data manually.

The transport and shipment document VDA 4939 can also be used as a document for shipments that are not controlled with AMES-T. The documents need to have a "No AMES-T" comment.

3.1.7.2 EDI Delivery Note VDA 4912

If the EDI transmission does not reach the material receiving system in time, material receiving will use the EDI shipping list to recapture the dispatch and transport data manually. The controlled pick-up in the AMES-T process is not supported by the EDI shipping list.

The structure of the EDI shipping list is defined in the VDA 4912 documentation. The same data has to be shown as it is transmitted with the Dispatch Advice VDA 4913. This has been identified in the following example and also in the "*Overview of Data Structure*" that is an attachment to this paper.

The partners who use the Dispatch Advice VDA 4913 to transmit the dispatch and transport data may use the EDI shipping list to inform us of the stacked unit pack representation and the package serial numbers according to the guide "Representation of packages in delivery note VDA 4913". The following example corresponds with the examples in the guide for the representation of packages.

Note: When indicating package serial numbers in the EDI shipping list, VOLKSWAGEN requests a different representation than asked for in the VDA 4912 recommendation.

Additional information on loading devices:

When a stacked unit pack is shipped, the carrier pallet is identified in a separate line by applying a specific package serial number and also by showing the VW packaging code and the package identifier. Additional auxiliary packaging, for instance unit load plate, frame etc., will each be identified by an additional line, but no package serial number will be applied. Such additional lines may be placed anywhere within the particular stacked unit pack information but must follow the record type 715 which identifies the carrier pallet or comparable packaging.

In the case of mixed shipments, for each article number an additional unit pack line with the package identifier "G" will be placed in front of the specific small load container listing.

Each of these unit pack lines should carry the package serial number and the packaging code of the carrier pallet as shown on the master transport label. The unit pack line going with the first article number carries the packaging number "1". The unit pack lines for the following article numbers in the container are redundant. They are used to allocate the inner packaging to the container and have the quantity "0".

Position 32: Instead of showing the Volkswagen packaging code (customer), depending on the case in question, either "Beipack" , which means *added package*, or the packaging code of the auxiliary loading device (see above) have to be entered.

Position 33: Instead of the load quantity, text "X" (separator), the package identifier S, M or G, relating to the package serial numbers in this very line - has to be shown in location 57.
The position heading should be marked "PSK" before load quantity "Füllmenge" (for package identifier - Packstückkennung).

Position 34: Instead of supplier package serial number the package serial number (location 76) or, in the case of several packages, the package serial numbers "from - to", have to be entered (locations 76 and 88). The "from - to" representation may be used only under the condition that all the article numbers, packaging codes and load quantities are identical.
The position heading should be marked "PSNR from - PSNR to", with *PSNR* standing for package serial number.

Position 40: Engineering change status
The engineering change status needs to be entered for deliveries to Audi, as in SA 716 Pos. 3.

It may be that the supplier's procedures are not sophisticated enough to assign the packaging serial numbers strictly consecutively when dispatching material of the same article number. Otherwise the paperwork for numerous containers with the same article numbers would be enormous.

On the EDI shipping list, several delivery note numbers can — unlike the delivery note — be listed on one page to reduce the volume of paper as long as they belong to the sort criteria in the page header (shipment number, receiving point).

The following figures are an example of the package identification on the EDI shipping list.

```

-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0-----1
DFUE - WARENBEGLEITSCHHEIN          SENDUNGS_NR: 12345678          09.04.94 - 11.30
                                          BLATT 01.01
LIEFERANT -Werk: 01                    EMPFAENGER -WERK KUNDE: 11      ABLADESTELLE: 801QC
      -Nr: 0123456                      -NUMMER: 123456                LAGERORT:
CCS                                     VOLKSWAGEN WERK WOLFSBURG      VERBRAUCHSSTELLE:
Postfach 123                           POSTFACH                        VERSANDART 03
12345 Kaiserslautern                   38436 WOLFSBURG                FRACHTFUEHRER: TRANSSPED
                                          -NUMMER: 123456                SEND.-GEWICHT BR: 1450
=====
LS-NR      SACHNUMMER KUNDE          MENGE  ME  V/G  BEZEICHNUNG DER LIEFERUNG      BESTELL-NR
-DATUM     SACHNUMMER LIEFERANT      ZUSATZDATEN LIEFERANT
-POS       PACKMITTEL -MENGE -NUMMER KUNDE          PSK FUELMENGE      PSNR von - PSNR bis  KONSIGNATION
=====
nn123456   8A0 000 000 A              400 ST  M   STELLMOTOR                    S00001
09.04.94   XXXXXXXXXXXXXXXXXXXXXXXXXXXX  ZUSATZDATEN LIEFERANT
001        VP:          2 - 15155          S   150      004711001 - 004711002
           VP:          1 - 15155          S   100      004711003

           8B0 310 004 F              100 ST  M   LUEFTER                        S00001
           XXXXXXXXXXXXXXXXXXXXXXXXXXXX  ZUSATZDATEN LIEFERANT
002        VP:          1 - 210516        S   100      004713000

           8A0 500 500 A              115 ST  M   PUMPE                          S00001
           XXXXXXXXXXXXXXXXXXXXXXXXXXXX  ZUSATZDATEN LIEFERANT
003        VP:          1 - DB0011        M   0        004811130
           VP:          1 - P01208        0
           VP:          3 - 004318        S   30      004811221 - 004811223
           VP:          1 - 004318        S   25      004811224
-----
nn123789   5A0 555 500 A              100 ST  M   FLANSCH                       S00001
09.04.94   XXXXXXXXXXXXXXXXXXXXXXXXXXXX  ZUSATZDATEN LIEFERANT
001        VP:          1 - DB0011        G   0        004711100
           VP:          2 - 004318        S   20      004711221 - 004711222
           VP:          2 - 004318        S   30      004711223 - 004711224
           VP:          1 - P01208        0

           8B0 100 200                60 ST  M   KRUEMMER                     S00001
002        VP:          0 - DB0011        G   0        004711100
           VP:          1 - 004318        S   40      004711225
           VP:          1 - 004318        S   20      004711340
-----
nn123777   8C0 000 300F              80 ST  M   T-STUECK                       S00001
09.04.94   XXXXXXXXXXXXXXXXXXXXXXXXXXXX  ZUSATZDATEN LIEFERANT
001        VP:          0 - DB0011        G   0        004711100
           VP:          2 - 004318        S   40      004711226-004711227
-----
WE:                                     MENGENPRUEFUNG:                GUETEPRUEFUNG:

```

Figure 13: Package representation in the EDI Shipping List VDA 4912. for single loading devices (Pos 1.2) for stacked unit packs containing one part number (Pos 3) for mixed loads / stacked unit packs (Pos 4 - 6)

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3.1.8 Transport Information VDA 4921

Volkswagen expects to receive the EDI message Transport Information VDA 4921 from the carrier/forwarding agent.

The freight data and the dispatch and transport data are used directly for the computer controlled settlement of freight charges.

General Directions

Depending on whether the material receiving plant belongs to Volkswagen or to Audi, the forwarding agent will transmit the Transport Information VDA 4921 either to IVZ Wolfsburg (station ID R11) or to IVZ Ingolstadt (station ID R21). The following data file names have to be used:

DFR.*sid*.R11.FR0300A (IVZ Wolfsburg for Volkswagen plants),
DFR.*sid*R21.FR640I (IVZ Ingolstadt for the plant Ingolstadt and Győr),
DFR.*sid*.R22.FR640N (IVZ Ingolstadt for Neckarsulm plant),

sid = station-ID of the forwarder

The IVZ Wolfsburg (R11) accepts the delivery data for plants working for the Volkswagen brand according to the following *section 6.1.2. Plant identifiers*.

The IVZ Ingolstadt has to be addressed for all shipments to plants of the Audi brand (Ingolstadt, Neckarsulm and Győr).

Record types and record type sequence when delivery data is transmitted from the forwarding agent to Volkswagen:

Rec. type	Version	M/ C	Repeat	Data definition
751	01	M	1	Header delivery data (once per transmission) must be 1st record in any transmission
752	01	M	1	Transport unit identification (once per transport unit) must follow 751 may follow 755
753	01	M	1	Transport information (once per transport unit) must follow 752 must not follow 753, 754, 755
754	01	M	1	Forwarder supplement record (once per unique shipment identification number - SLB) must follow 753 may follow 755
755	01	M	R	Dispatch advice register (once per unique shipment identification number - SLB) must follow 754 may follow 755
759	01	M	1	Trailer record delivery data (once per transmission) must follow 755

The following definitions refer to exceptions related to this message. Additional explanations concerning the structure and definition of other messages as well are identified in the Data Catalogue and in the general data descriptions that are attached to it.

Record type 751

Position 03: Data recipient number

The customer number as agreed with Volkswagen/Audi should be used. The customer number is not plant related.

Position 04: Data sender number

The "supplier number" of the forwarding agent has to be transmitted with 9 digits (previously 6-digit, including the identifier).

Position 05/06: Transmission identification number old/new

The run identification number or transmission identification number has to be assigned consecutively, always starting with 00001, ending with 99999, then starting with 00001 again.

Record type 752

Position 03: Transport unit code

Diverging from VDA recommendations the following identifiers are to be used:

- 21 standard truck with or without trailer
- 22 tractor trailer
- 23 high cube truck with or without trailer
- 24 high cube tractor trailer
- 25 low boy for heavy loads
- 26 passenger car
- 27 van
- 28 van with trailer
- 29 trailer on flat car

Position 04: Transport unit identification

Depending on the type of transport unit identified under position 03, the first 12 alphanumeric of the truck license number, the rail car number or the trailer on flat car number (identifier 29) respectively have to be entered. From location 14 on, the license number of the trailer has to be entered if applicable.

Position 07: Waybill correction code

If code "L" (cancellation) is received, Volkswagen will cancel all data received under this waybill number (position 05) and cease processing subsequent records. To facilitate changes, the corrected information has to be retransmitted.

Record type 753

This record will be transmitted without any information in positions 03 to 07.

Position 08: Information correction code

Since changes may not to be affected at the level of record type 753, this position must always be filled with blanks.

Record type 754

Position 03: Supplier number

The supplier number has to be drawn from record type 711 in **Dispatch Advice VDA 4913** or, in those cases where the forwarding agent consolidates shipments, from record type 713, position 16.

Position 08: Shipment gross weight
This information has to be drawn from the waybill.

Position 10: Number of packages
The number of packages belonging to the particular supplier on the transport unit has to be transmitted. The field is to be filled from the VDA 4913, SA 712 and should be altered by the carrier manually if necessary.

Position 12: Plant supplier
The two-digit (previously one-digit) supplier identifier or plant identifier as allocated by Volkswagen to the dispatching supplier plant should be taken from position 04 in record type 712 of the Dispatch Advice VDA 4913 and is to be entered left-justified. (See also section on VW/Audi-specific data items).

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3.1.9 Transport Label

Principles

All loading units (packages) that are delivered to Volkswagen with production material need to have a transport label. The OTL (= Odette Transport Label) in accordance with recommendation VDA 4902 / 4 that has been used so far can be used parallel to the Global Transport Label (GTL).

To support improved transport and goods receiving processes at the plants, e.g. direct genuine parts deliveries, the exclusive use of the GTL according to the process or plant can be required.

The standard size of the printed area is comparable to DIN A5 paper size. If necessary, the actual size of the paper form can be larger than A5.

When VDA-KLT systems (according to VDA 4500) are used, a transport label for small containers — either VDA 4902-3/KLT label or GTL Small Label — should be used.

- The Volkswagen transport label must be sufficiently durable and be fastened to packaging in such a way that automatic bar code scanning and visual recognition are not impeded.
- The transport labels that still exist have to be detached.
- All Volkswagen packaging units have defined areas or label holders where the transport labels should be affixed. The level, horizontal attachment of the transport label in the defined location guarantees unimpeded recognising and automatic scanning of the information. Straps used to support packaging should never cover or run underneath the master transport label.
- Bar codes should never be covered by stickers.
- If, in exceptional cases, packaging units that do not comply with the official VW loading device system are used, the transport label should be placed horizontally along the upper edge on one side.

Particulars related to the KLT Transport Label

Because of this, the KLT Label fits exactly into the label holder of the small load container. The label should be slid into the holder and secured against loss by applying a sticker, for example. Transport labels should never be glued to the label holder.

The small labels for KLT and the DIN A5 labels are to a great extent identical in terms of content. Both formats can be produced on a printer without changing the paper. In printing, the processing may follow these suggestions:

- Print out of two KLT transport labels to fill a print area comparable to a DIN A5 paper size. The labels have to be cut to measure 7.4 cm in height each.
- Print out of only one label on the upper half of a print area comparable to a DIN A5 paper size, the lower half remains empty. The paper will be folded to measure 7.4 cm in height. The low half is left empty. Or

For this reason, the lower half of the print area comparable to a DIN A5 paper size may be used by the supplier to print his own data needed in internal processing, for example, the additional supplier article number. When shipping the materials, the transport label should be pushed into the KLT holder so that the print-out required by Volkswagen is visible.

The VW-specific requirements for labels are provided in the special guides “Global Transport Label GTL” and “Odette Transport Label OTL = VDA 4902” that you will find on the Volkswagen supplier platform.

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3.1.10 Loading Device Data VDA 4927

Volkswagen transfers the VDA 4927 according to edition 3 from February 1997.

The VW-specific requirements for VDA 4927 are document in the “Packaging data VDA 4927” message guide that you will find on the Volkswagen supplier platform.

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3.2 Code Lists and General Data Items at VOLKSWAGEN

3.2.1 Code Lists and Identifier Tables

VDA codes have been defined to support communication within the German automotive industry. The functional description of codes and identifiers used in messages is part of the VDA recommendations which are obtainable from the VDA.

ODETTE Codes (ODDC) do comply with the codes contained in the UN-Trade Data Elements Directory (UN/TDED ISO 7372). The ODETTE Data Catalogue may be obtained from the national ODETTE organisations, in Germany from VDA. ODETTE messages, which are implemented at VOLKSWAGEN, comply with the VDA recommendations that were developed to cover these messages. ODETTE code descriptions are part of the message specific VDA recommendations and therefore do not need to be obtained separately.

3.2.2 VW/Audi-specific Message-orientated Data Items

Delivery location (5-digit)

The delivery location should be transmitted in all messages and documents according to the format in the EDI delivery instruction and the daily call-off.

If referring to the paper document delivery instruction VDA 4904, the delivery location may be copied, but without separators, for example:

101-01 => 10101 (Pos 1: plant, pos.2-3: fin. key., pos. 4-5 store group)
101/74 => 10174

Arrival date

The date when a shipment is to be available in the VOLKSWAGEN material receiving area.

Customer order number, delivery

The order number specified in the delivery instruction should be used for the delivery note and transport data.

The customer order number is originally assigned by the purchasing department. Depending on the particular case, it will be converted into the **general order number**.

Customer order number, purchase

The customer order number is originally assigned by the purchasing department in the (annual) query. **This number should not be used when transmitting dispatch and transport data.**

Receiving point (3-digit)

The receiving point is the location (hall / external service provider) where the delivery is made and cover several receiving points. The first three digits of the receiving point / storage location from the delivery instruction are the receiving point code. The following four digits are the storage location (see EDI guide delivery instruction VDA 4905 / DELFOR). The delivery point is transmitted in the delivery instruction if an entry is found in the VOLKSWAGEN master data. The delivery point is additional information to the article number and not an identifier.

The delivery point should be printed on the transport labels and shipment documents (VDA 4912, VDA 4939) as the shipment address. The TSB Generator in the AMES-T process determines the delivery address for creating the transport and shipment documents from the delivery point code. In the controlled pick-up in the AMES-T process, the receiving point code is read (see EDI-Guide VDA 4913 / DESADV). Therefore the receiving point in the AMES-T process for creating the documents with the TSB Generator is absolutely necessary.

The possible delivery addresses are available for download in the closed area of the B2B supplier platform. The receiving point is defined and assigned by the Factory Logistics of the respective marque.

Engineering change status

For deliveries, the engineering change status needs to be sent in the dispatch data and the shipping documents.

At Volkswagen/Audi, the engineering change status is indicated by the date of drawing change and the change number. It is announced by a drawing change report (paper).

Customer number

The customer number may be defined by the supplier and, if he so requests, be transmitted in the delivery instruction and in the daily call-off. Different customer numbers may be used for a Volkswagen AG brand, but not for separate Volkswagen/Audi plants.

Storage location: (7-digits / 3 + 4)

The storage location is a place in the hall where the item is to be stored. It is currently only relevant as application-dependent for Audi and is passed on to the suppliers via the call-off data DELFOR, VDA 4905/1 or VDA 4915 as additional information on the receiving point and should be transferred back by the supplier via the dispatch data (delivery note and transport data and documents). The storage location is additional information to the article number and not an identifier.

Supplier number at Volkswagen and Audi

Basically it is expected that the supplier numbers in the dispatch and transport data are exchanged in the same way as the delivery instructions.

Supplier numbers with 6 characters are transmitted in EDI with 9 digits since 7/2001 (7-character supplier number + 2-character supplier plant identifier). The first character is always occupied by the character "0".

Supplier numbers with 5 character are transferred in the EDI with a one-digit index (5-character supplier number + 1-character supplier plant).

The use of 6 or 9 characters is not dependent on the chosen standard (VDA, EDIFACT, Odette).

Required structure:

The second character of the extended supplier number cannot be "0". (currently 1= supplier, 2= carrier).

When the new 7-character supplier number is used, the plant identifier may only have 2 characters. The available characters for the plant identifier are 00 to 99.

Example for 9-character alphanumeric VDA data field:

VDA field	9 characters	123456789
Example 1		
Old supplier number with plant identifier	5 + 1 characters	123451bbb
Extended supplier number with plant identifier	7 + 2 characters	011234501
Example 2		
Old supplier number without plant identifier	5 characters	00045bbb
Extended supplier number without plant identifier	7 characters	0100045bb

In EDI data and in the barcode on the transport label, there may not be a separator slash "/" between the supplier number and the plant identifier, even in the new configuration! The supplier number with "/" between the supplier number and plant identifier may only be displayed in plain text (on the transport label VDA 4902 and the TSB).

Delivery note number

Numerical, with leading zeroes

Packaging number (packaging ID) customer

The packaging code will be reflected for new positions in a first announcement, in case of changes in the packaging instruction and in the delivery instruction, but always according to the following example. The packaging number at VOLKSWAGEN has maximal 7 characters.

Examples:

VW0001 not SK-V-7143
VW0012 not 70-A-110671
007255 not 7-v-7255
010028 not 70-A-010028
0110302 not 7-V-11030/2
110656 not 70-A-110656
FA0011 not FA-11
.....

Article number customer (part number)

The dispatch and transport data and all other documents have to be presented in the same way as they are transferred by VOLKSWAGEN at the instructions.

Unique shipment identification number (Sendungs-Ladungs-Bezugsnummer)

The unique shipment identification number should be unambiguous and may not be repeated within a calendar year.

Place of use (max. 14 characters)

For deliveries to Audi's Neckarsulm and Győr plants, a place of use needs to be sent for some article numbers depending on the individual case. This is sent in the daily call-off and delivery instruction and should be indicated in the dispatch data and on the transport label. The place of use is the storage location assigned to a specific item. The place of use is given as additional information to the part number and receiving point and is not an identifier.

The place of use is currently not sent in DELINS (VDA 4905/2).

It is also not possible to send the place of use in AVIEXP.

Plant customer

The plant identifier is shown in delivery instructions and daily call-offs and has to be identically and left-justified reflected when transmitting data to VOLKSWAGEN. See also data attachment "Material receiving".

Plant supplier

The index of the delivering plant should always be given in the dispatch data. Our material receiving system checks whether the index sent is a valid index. VOLKSWAGEN also accepts plant identifiers assigned by the suppliers provided they can be translated to the code assigned by VOLKSWAGEN material receiving system. These parallel identifiers need to be agreed on with the EDI coordinators at VOLKSWAGEN. In all other aspects of the information exchange with suppliers (container data, self-billing invoice), only supplier indices assigned by VOLKSWAGEN will be used.

Customer identifier (responsible party)

This identifier is made up of 4 characters: locations 1-2 contain the plant identifier and locations 3-4 contain the identifier for the individual analyst.

3.2.3 Data Catalogue for the Data Interchange with Volkswagen/Audi

In the "Overview of data usage in the electronic data interchange with Volkswagen/Audi", you will find the data elements used in EDI messages that VOLKSWAGEN has implemented already or that they will implement soon. The data formats are reflected as recommended in the standards and also as they are processed in VOLKSWAGEN.

The electronic data interchange with VOLKSWAGEN is based on agreed data element definitions settled in VDA recommendations (Column 'Format VDA'). The actual processing

of the data element at VOLKSWAGEN is shown in the column 'Format VW'. Data elements that are always numerical have been identified with "n" in front of the field-length specification. Should the column 'VW/Audi code' carry a "D", the section 'VW-specific Message-orientated Data Usage' will explain how to use the data element when using EDI with VOLKSWAGEN. If an "N" is indicated, use of the data element is explained in section 2.... in the message-oriented descriptions. If a "V" is indicated, then the description in the respective VDA recommendation is sufficient for use of the data element in data transfers with VOLKSWAGEN. A combination of these keys is possible.

For data elements that are part of the EDIFACT or ODETTE-based messages with ISO 9735 syntax, the ODETTE formats are also shown with reference to the ODETTE Code Tables (ODDC) and the Trade Data Element Directory (UN/TDED-ISO 7372) where appropriate.

The use of the data element is indicated by a reference to the message-specific record type or segment. Where fields are hatched, the specific data **must** be entered when the record type is transmitted (mandatory data). If the data element is to be transmitted under certain conditions only, record type and segment will not be hatched. Any data elements that are currently not processed at Volkswagen are identified with the symbol "-".

Important:

Data elements that are currently not processed at VOLKSWAGEN may be activated as soon as changed information requirements make this necessary. We therefore suggest allowing processing of the full informational volume of a specific VDA recommendation when planning your EDI system.

The EDI data catalogue is available on the Volkswagen B2B supplier platform.

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4. EDI Operating Locations and Contacts at Volkswagen Group

You will find contacts for EDI with the VOLKSWAGEN GROUP brands on the Volkswagen B2B supplier platform under

http://www.vwgroupsupply.com/b2b/vwb2b_folder/supplypublic/de/platform/applications/applications_edi/edi_contacts.html.

Imprint

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