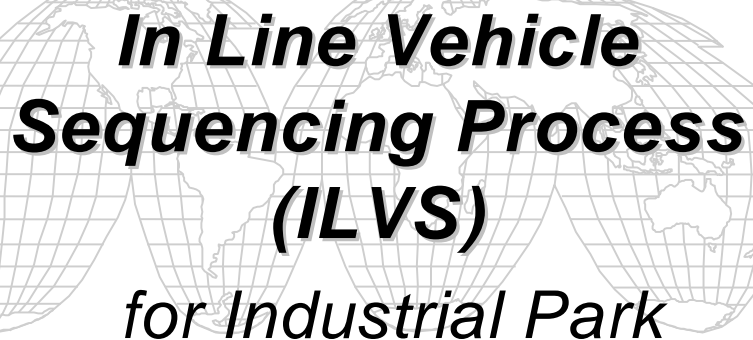




Production Material Deliveries in Actual Sequence

A graphic of a globe with a grid of latitude and longitude lines, centered behind the main title text.

***In Line Vehicle  
Sequencing Process  
(ILVS)***  
*for Industrial Park*

Supplier Brochure  
Version 4.5  
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Issued by  
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# Production Material Deliveries in Actual Sequence

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## Production Material Deliveries in Actual Sequence

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Ford Motor Company Limited



# Production Material Deliveries in Actual Sequence

## 1. Introduction

Consistent with the Ford Automotive Operations (FAO) strategy to implement the Ford Production System, ILVS is a breakthrough application of computer and manufacturing technologies, which implements suppliers into a single cohesive manufacturing entity. It enables selective nearby suppliers (mostly located in Industrial Parks) to manufacture and deliver material in vehicle sequence to the Ford Assembly plant.

## 2. Objective

The objective of ILVS is to provide part number information (vehicle Bill of Material) from CMMS (Ford's Common Material Management System) to the supplier to enable the subsequent match with the actual vehicle sequence from PVS.

## 3. Process description

### 3.1 Process at the Ford Assembly Plant

- Weekly planning release

Ford will generate weekly supplier releases for all sequenced parts including a forecast period of 6 months. These are transmitted to the supply base using VDA format 4905 or EDIFACT format DELFOR (depending on the supplier's preference).

- Daily call in (DCI)

Ford will generate daily DCI's for all sequenced parts showing a maximum of 10 days requirements. These are transmitted to the supply base using VDA format 4915 or EDIFACT format DELJIT (depending on the supplier's preference).

- ILVS

Ford will generate daily ILVS predicted sequence messages that show data of sequenced orders in a time window of usually five production days. The ILVS message contains the following order information:

- VIN number
- Expected production date and predicted sequence number
- Part numbers with quantities based on CMMS bill of material

The sequence messages are sent to the dedicated supplier mailboxes. Supplier access to these mailboxes should be discussed with Ford's Supplier Communication Team (GSEC). The daily messages are called ILVS Central Broadcast and are sent in EDIFACT format DELJIT D96A.



## Production Material Deliveries in Actual Sequence

### 3.2 The Process at the Sequencing Suppliers

The sequencing suppliers will receive **weekly Supplier releases** for all sequenced parts of the commodity for a forecast period of 6 months.

The sequencing suppliers will get a **Daily Call In (DCI)** for all sequenced parts of the commodity, showing requirements for up to 10 days.

With this information, the sequencing suppliers can perform pre-assembly processes, if appropriate, for the part category.

The sequencing suppliers will get the **ILVS predicted sequence messages** for usually 5 days in advance of off-line production, showing VIN related part number info.

Each delivered part has to be identified by a label with part number, part name, the sequence number and the point of fit.

If there is no conveyor delivery, the sequencing Suppliers will print a rack label with the lowest- and highest sequence number of the parts in the shipping rack and attach it to the rack before dispatch. The sequence number is given by the PVS actual sequence.

Each part should also have a label printed by the supplier.

The label should contain:

- Part number
- sequence number (based on actual sequence)
- VIN number

This label on part level is independent of truck or conveyor delivery

### 3.3 Setting up new supplier

If a new supplier / logistic provider will be located at the Industry Park, Plant Manufacturing will communicate the following info to both Ford PPM and the Plant Industrial Park Helpdesk:

- new commodities
- part numbers
- supplier code (GSDB) for ILVS routing purpose
- payment method

The GSDB code(s) of a new supplier have to be submitted to SPI team to coordinate system's set-up and ILVS file generation. The supplier will be contacted by Ford's Supplier Communication Team (GSEC) to arrange the new connection and mailbox installation.



## Production Material Deliveries in Actual Sequence

### 4. Electronic Data Interchange (EDI)

Ford provides EDI files in a Standard International Format. The Supplier will use the data in his own systems to support the business process.

How to establish the EDI communication; please contact GSEC  
([scommssp@ford.com](mailto:scommssp@ford.com))

#### 4.1 EDI Data Flow, Timing and Volume

The ILVS message is provided six days per week (Monday until Saturday) in batch mode, usually prior 06:00 a.m.

- Data format

The data format used will be the ODETTE SYNCRO message Version 3 (subset of the UN/EDIFACT DELJIT message, see attachment - [ILVS Message Layout](#) - for details) A copy of the Implementation Guidelines for this message is available from GSEC. The supplier is responsible for the software to receive the transactions.

- EDI data volume

Each broadcast usually contains information for the next five production days

#### 4.2 Supplier Broadcast Update Recommendations

##### ILVS – File Update Rules

- DAILY FILE DOWNLOAD  
File is available from Monday to Saturday  
Always replace the complete ILVS data
- 5 DAYS LOCKIN PERIOD  
No changes on order specifications
- MIN BACKUP PERIOD 5 DAYS  
Availability to switch to old file data
- UPDATE RECOMMENDATION
  - Orders with Sequence status indicators SEQ+1,+3,+4,+5 are valid and must be considered
  - Order data records for orders with Sequence status indicator SEQ+2 have to be skipped.
  - If an order appears twice, then only the order data record that is *not* indicated with SEQ+2 should be considered.
  - **Orders with Sequence status indicator SEQ+7 are for reference, showing future build days. These orders should be considered for information only.**



## Production Material Deliveries in Actual Sequence

### 4.3 Checking tools ILVS for FSS

#### Full Service Suppliers (FSS)

Full Service Suppliers are 100% responsible for the WERS structure/input. FSSs are also responsible to install check routines, which allow identifying errors after the WERS load. Identified errors (also those highlighted by Ford PPM or Helpdesk personnel) need to be corrected within 48 hours. To ensure this process and to enable a continuous production, adequate procedures and support tools must be available at the FSS.

The assembled modules will be delivered in sequence via conveyor directly to the point of fit; therefore 100 % in sequence reliability is required.

Errors in WERS releasing can result in delivery of wrong modules, missing modules or quantity errors. Consequently line stoppages could occur. Retrofitting of modules in most cases is not possible.

The following two checking processes are required:

1. Checking of WERS input (UCCs, min. features etc.) and output after releasing action.
2. Checking of submitted ILVS DELJIT messages based on complexity tables/build matrixes/quantity checks (in case of extremely high number of variations)

Furthermore, the identified errors should be classified and the result immediately submitted to the Helpdesk personnel.

Corrective actions/concerns have to be initiated and forwarded in line with the according procedures.

- RECOMMENDATION
  - Develop build matrixes (identify buildable combinations)
  - Establish quantity counts (validity check when a build matrix not possible)



## Production Material Deliveries in Actual Sequence

### 4.4 Communication between ILVS supplier and Ford regarding ILVS Commodities

The supplier should communicate to Ford if a change to the ILVS file content, i.e. part additions etc. is required.

The ILVS content is controlled through ILVS commodities, which consist of one or more base part numbers. All parts that are associated to a base part number of an ILVS commodity will be reflected on the daily ILVS file, in line with the vehicle BOM.

The supplier should allow at least 10 days notice to add/remove part information from the ILVS file.

Failure to communicate commodity set-ups, changes, or cancellations may cause serious plant production issues.

- RECOMMENDATION
  - Make sure that the supplier IT personnel is informed about any ILVS commodity changes
  - Communicate information about new ILVS base part numbers in time (minimum 10 days before the information is required on the ILVS file) to Ford ILVS helpdesk or to Ford PPM contact
  - Communicate information about old ILVS commodities that are no longer required in time to Ford ILVS helpdesk or to Ford PPM contact





## Production Material Deliveries in Actual Sequence

### 5. Generation of Sequence

#### 5.1 Update of the supplier system

The supplier should always download a complete file (usually contains 5 days of production).

The supplier has to ensure that the previous file is available to be used in emergency situations.

#### 5.2 Distribution of Supplier Broadcast to transmission files

The ILVS file will usually contain five production days. In exceptional cases, this number is increased, i.e. in launch and balance out period, for planned downtime, shutdown periods or rollback actions.

The ILVS file is sorted by:

1. Ford plant
2. Production plant line
3. Supplier GSDB code

Within the file, the data is sorted by sequence date.

Within the sequence date the sorting criteria are: sequence number, VIN and Part number

The sequence number is not relevant for the delivery to the point of installation. The actual sequence is communicated through the VIN call-off message by the PVS material call in server, when the vehicle enters the production line.



## Production Material Deliveries in Actual Sequence

### 6. Check of ILVS DELJIT messages / Hold File

BOM errors can be detected through an 'order to parts' audit process (Empress/ Mobius) prior to the supplier broadcast. If such an error is detected the plant ILVS helpdesk will contact the supplier and advise corrective actions.

The ILVS DELJIT message file is send directly to the suppliers. If suppliers experience issues with the file content they must be able to reload the file from the previous day.

The suppliers have to save the DELJIT files from the last 5 days as backup.

Suppliers should get in touch with the ILVS plant Helpdesk if any errors are identified.

#### 6.1 Implications on Sequenced Broadcast

The following orders will be broadcasted to the suppliers:

1. All orders that are part of a sequenced day - inside the supplier lock-in period
2. All orders that are part of a sequenced day - outside the supplier lock-in period - which have been broadcasted once before (i.e. after a Rollback)
3. All orders that are part of a sequenced day outside the supplier lock-in period and are a pre-job 1 unit.

#### 6.2 Engineering Changes

The engineering changes are reflected in the bill of material.

The manufacturing BoM is maintained by PPM.

The first vehicle of a new production day is always the start of a new part-level.

All changes are handled as coordinated changes.

The effective in-date will be coordinated and timed by Plant PVT.

A newly introduced commodity is submitted by Plant PVT to PPM and the Plant's Industry Park Helpdesk:

- commodity (part number base)
- part numbers
- supplier code for ILVS routing purposes (IAMA update)
- implementation date



## Production Material Deliveries in Actual Sequence

### 7. Labels

Part and rack labeling requirements to support In Line Vehicle Sequencing (ILVS) are based on the following specifications:

- New part labeling.
- Global Ford Label Standard for the rack label.

#### 7.1 Part-Label:

A part label is required on every production part/module. The specific label location on the part should be agreed between the assembly plant and each supplier.

The key information on the part label is the sequence number. Suppliers should verify the correct label to part.

#### 7.2 Rack-Label:

A standard Global Ford Label is required for non-conveyor shipments.

#### 7.3 Bar Code:

Material should be verified through bar codes on the part and on the rack. The content of the part label barcode is defined by the supplier.

The part and rack label bar codes can be used in conjunction to verify the correct part to rack relationship (optional).



## Production Material Deliveries in Actual Sequence

### 8. Delivery Schedule

#### 8.1 Time Window Deliveries (for non-conveyor applications)

To be established in line with SMF/FPS principles.

#### 8.2 Empty Pallet Return (for non-conveyor delivery)

Details of non-conveyor deliveries have to be discussed with Plant MP&L, based on ISO 9000 plant procedure.

#### 8.3 Payment

Suppliers are paid by POP1. Exceptions must be agreed.



## Production Material Deliveries in Actual Sequence

### 9. ILVS Help Desk/Supply coordination

#### 9.1 Function

The Plant Help Desk Operator

- respond to supplier questions
- review the ILVS error reports on a daily basis (Mobius / Empress)
- resolve any issues in co-operation with the Supplier and will involve PPM/ Spec&Audit/ PVS / VSD / MP&L SPI as required
- communicate part and quantity errors to PPM

#### **Current recommendation regarding possible root causes of ILVS errors:**

Condition	Message	Reaction
Missing part for an order	part prefix and part suffix padded with x ( note that fields item description ( IMD segment), plant receiving location (LOC segment) Delivery and cum quantity (QTY Segment) will not be filled	ILVS helpdesk to agree with Supplier which part should be shipped. PPM to investigate & correct prior to build date.
Invalid quantity in Ford system	0 in net quantity of QTY segment (qualifier 131)	ILVS helpdesk to agree with Supplier which quantity should be shipped. Where the quantity by order is always the same due to the nature of the part (airbag, mirror) it can be agreed that the Supplier will automatically assume the correct quantity.
Multiple parts within same base for an order	All parts will be broadcast	In case this is an error, ILVS helpdesk to agree with Supplier which parts to ship
Order has been canceled	SEQ segment will be shown with status indicator +2	Do not send material for this order. Do not use for matching purposes. If the VIN is pulled by PVS, contact ILVS plant helpdesk.



## Production Material Deliveries in Actual Sequence

### 9.2 Availability

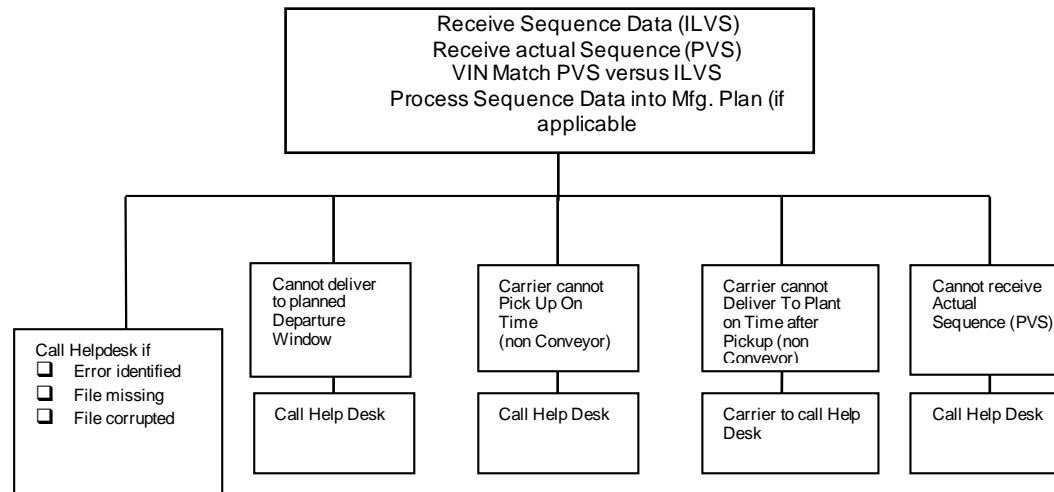
The ILVS helpdesk is operating during day shift working hours. The ILVS helpdesk will address problems, such as BOM or vehicle sequence issues, with the responsible areas at Ford, i.e. PPM, Purchasing, Vehicle Scheduling. During other shifts, the support is restricted.



## Production Material Deliveries in Actual Sequence

### 9.3 Supplier escalation procedure

#### Supplier ILVS Follow-Up Process





## Production Material Deliveries in Actual Sequence

### 10. Supplier Launch

#### 10.1 Supplier Launch plan

Each new Plant/Supplier combination should be reflected in a detailed launch plan.

The plan should be reviewed on a regular basis until job#1 .

Key milestones of the launch:

- Collect Supplier Information
- Prepare and Issue Documentation
- Supplier Presentation
- Communications
- Systems Set-Up and Testing
- Training & Launch Support
- Contingency Plan - Launch without full functionality
- Testing list of errors and how the suppliers deal with it

#### 10.2 Actual Sequence Call-In

ILVS EDIFACT normally containing around five production days are transmitted to the Industry Park suppliers each morning, Monday to Saturday.

The five production days reflect the 'lockin' period. No order specification changes are allowed in the 'lockin' period.

If an order from the 'lockin' period should not be built it will be deserialised by Ford's Central Order Segmentation. The deserialised VIN cannot be reused. If the order is retransmitted after the deserialization process, it will receive a new VIN.

To allow the ILVS / PVS VIN matching process the supplier has to store the ILVS file in their local system.

PVS messages are created at the predefined reading point(s), e.g. exit tower /enter assembly trim line and are immediately submitted to the suppliers.

It contains VIN and actual sequence. Part number information is not available on the PVS message.

The format used is Odette Synchro. The message is submitted to the suppliers via FTP.

Error messages will be generated if the submission was not successful. Missing PVS messages at the supplier are likely to cause critical situations and require immediate corrective action.

To ensure continuous material deliveries during such incidents, the PVS message has to be faxed, mailed, or phoned to the supplier.





## Production Material Deliveries in Actual Sequence

The suppliers have to match the VIN from the PVS message with the VIN from the ILVS file and identify the appropriate parts for the VIN. The in sequence picking or production process should be started and labels should be printed at the individual workstations accordingly.

The picked / produced parts will then be loaded in production sequence onto the conveyor rack to be transported to the point of fit. The label should be fixed to the part to allow visibility for the production operators.

### 10.3 **Offline VIN Report**

The Assy Offline VIN report can support the supplier's payment matching process.

The report is generated each day and contains all offlined vehicles from the previous production day. It contains VIN numbers and time offline. It will be transmitted in ASCII format around 6.15 a.m.

The supplier can identify the related part numbers comparing the offline file VIN with the ILVS file VIN – same matching process as for PVS Odette Synchro file.

The assy offline message will trigger the payment process – pay on production.

The SBI records of the statement of account will not exactly match the suppliers shipping records, because the material in the pipeline (in the conveyor and on the production line) is not yet considered in the payments.

This is in line with the delivery terms, i.e. material between suppliers and Assy off-line is still owned by the suppliers (not auditable too).



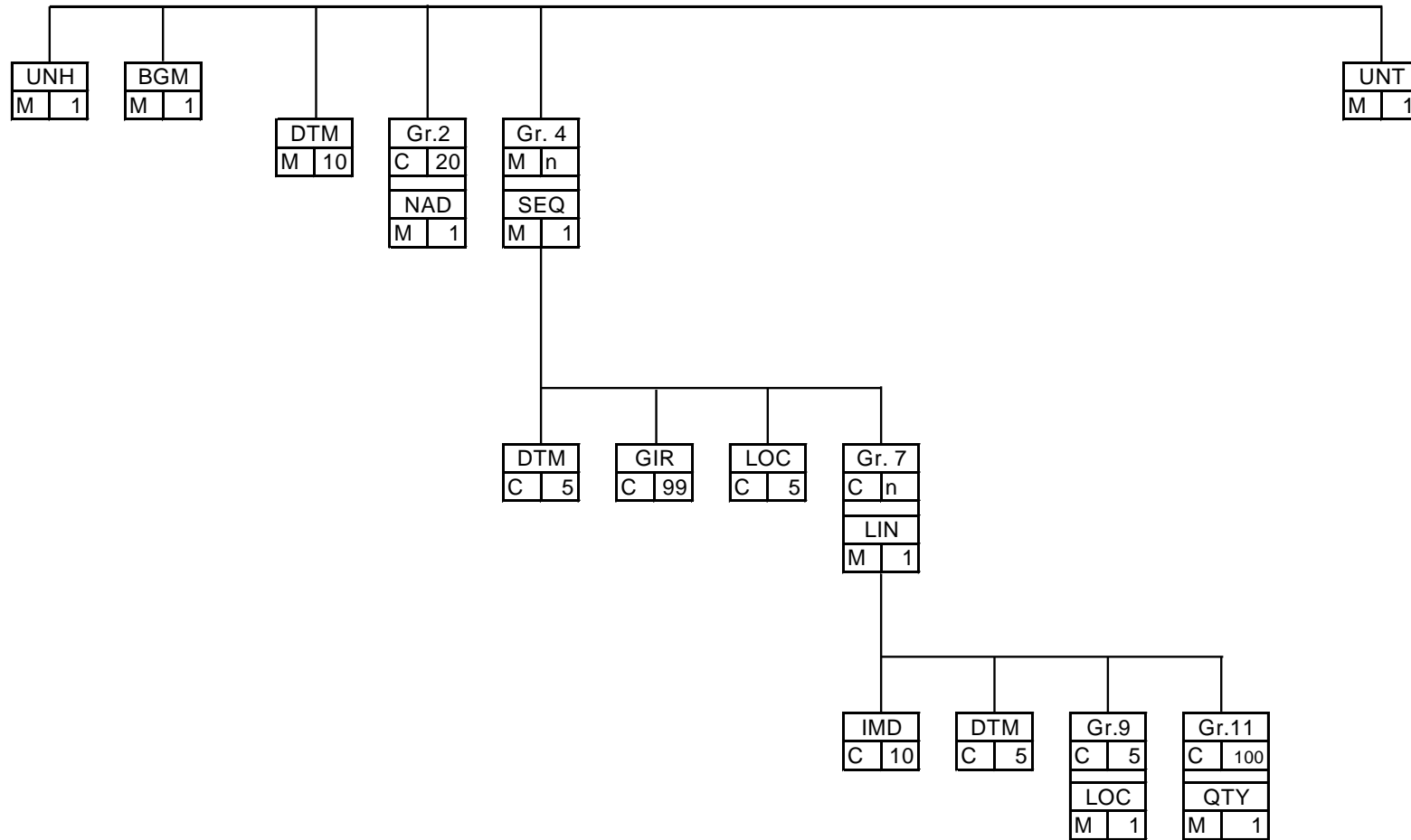
**Production Material Deliveries in Actual Sequence**

# **Attachments**



# Production Material Deliveries in Actual Sequence

## 1. ILVS Message layout Message branching Diagram DELJIT96A





## Production Material Deliveries in Actual Sequence

### ILVS Record Layout based on ODETTE SYNCRO/DELJIT

#### Interchange Detail

Segment: <b>UNB</b>		<b>M:1</b>			
Description: <b>Interchange Header (to start, identify and specify an interchange).</b>					
Field		Definition	C/M	Value	Notes
<b>S001</b>		<b>SYNTAX IDENTIFIER</b>	<b>M</b>		
<b>0001</b>	<b>a4</b>	<b>Syntax identifier</b>	<b>M</b>	<b>UNOA</b>	Controlling agency and character set level. Restricted value.
<b>0002</b>	<b>n1</b>	<b>Syntax version number</b>	<b>M</b>	<b>1</b>	
<b>S002</b>		<b>INTERCHANGE SENDER</b>	<b>M</b>		
<b>0004</b>	<b>an..35</b>	<b>Sender's identification</b>	<b>M</b>	<b>FORD</b>	
<b>S003</b>		<b>INTERCHANGE RECIPIENT</b>	<b>M</b>		
<b>0010</b>	<b>an..35</b>	<b>Recipient's Identification</b>	<b>M</b>	<b>e.g. 'P68PA'</b>	Vendor GSDB code File indicator S indicates Supplier P68PA indicates Vendor GSDB code S indicates first set of files to Supplier character f or further files t.b.d. 1-6 indicates physical file within set
<b>0014</b>	<b>an..14</b>	<b>Transfer address</b>	<b>M</b>	<b>e.g. 'SP68PAS1'</b>	
<b>S004</b>		<b>DATE/TIME OF PREPARATION</b>	<b>M</b>		
<b>0017</b>	<b>n6</b>	<b>Date</b>	<b>M</b>	<b>e.g. '960912'</b>	YYMMDD format.
<b>0019</b>	<b>n4</b>	<b>Time</b>	<b>M</b>	<b>e.g. '1030'</b>	HHMM format.
<b>0020</b>	<b>an..14</b>	<b>Interchange Control Reference</b>	<b>M</b>	<b>sub# 1 - sub# 2</b>	Sub# 1 = Transm.# = 1-999999999, iterative by vendor
				<b>sub# 2 default = 01</b>	Sub#2 = Transm.# = 01-99, iterative by re-transm.
<b>Segment message: UNB+UNOA:1+FORD+P68PA::SP68PAS1+960912:1030+000000002/01'</b>					

The Ford ILVS Data Transmission is based on the ODETTE/UN-EDIFACT standard for the electronic interchange of delivery messages.

This Sample Interchange message between Ford and a Supplier consists of 1 ILVS message.

If a transmission fails and has to be sent again, the sub#2 will change from 01 to 02,... with each resending.

**Sorting Sequence:** The sorting sequence of the messages will be: Plant, line-up and sequence date. Within the sequence date the sorting sequence will be: Vehicle (=Sequence). Within the vehicle the sorting sequence will be the part number.



## Production Material Deliveries in Actual Sequence

Segment: <b>UNH</b>		<b>M:1</b>			
Description: <b>Message Header (to head, identify and specify a message).</b>					
Field		Definition	C/M	Value	Notes
<b>0062</b>	<b>an..14</b>	<b>MESSAGE REFERENCE NUMBER</b>	<b>M</b>	<b>sub# 3 = Reference-No.</b>	Sequential ref. of message within interchange.
<b>S009</b>		<b>MESSAGE IDENTIFIER</b>	<b>M</b>		
<b>0065</b>	<b>an..6</b>	<b>Message type identifier</b>	<b>M</b>	<b>DELJIT</b>	
<b>0052</b>	<b>an..3</b>	<b>Message type version number</b>	<b>M</b>	<b>D</b>	D = draft.
<b>0054</b>	<b>an..3</b>	<b>Message type release number</b>	<b>M</b>	<b>96A</b>	EDIFACT directory D96A
<b>0051</b>	<b>an..2</b>	<b>Controlling agency</b>	<b>M</b>	<b>UN</b>	United Nations.
<b>Segment message: UNH+0000000000001+DELJIT:D:96A:UN'</b>					

The message reference number will count the numbers of UNH segments within the interchange.



## Production Material Deliveries in Actual Sequence

Segment: <b>BGM</b>		<b>M:1</b>			
Description: <b>Beginning of Message (to indicate type and function of a message and to transmit the identifying number).</b>					
Field		Definition	C/M	Value	Notes
<b>C002</b>		<b>DOCUMENT/MESSAGE NAME</b>	<b>C</b>		
<b>1001</b>	<b>an..3</b>	<b>Document/message name, coded</b>	<b>C</b>	30	30= Sequenced deliveries
<b>1004</b>	<b>an..35</b>	<b>Document/message number</b>	<b>C</b>	e.g. '19960912'	sub# 4 = Build date (key), format CCYYMMDD
<b>Segment message: BGM+30+19960912'</b>					

Within the SEQ segment the sequence number can only be repeated up to 9999 times, therefore Ford had to restructure the build date preview. Each build date will be transmitted separately within a UNH to UNT range.



## Production Material Deliveries in Actual Sequence

Segment:	DTM	M:10		1/10		
Description: <b>Date/time/Period (to specify date and time details of the message transmission).</b>						
Field		Definition	C/M	Value		Notes
C507		<b>DATE/TIME/PERIOD</b>	<b>M</b>			
2005	an..3	Date/time/period qualifier	M	137		137= Doc./message date/time
2380	an..35	Date/time period	C	e.g. '199609120812'		Message date/time
2379	an..3	Date/time/period format qualifier	C	203		203= Qualifier for CCYYMMDDHHMM format
Segment message: DTM+137:199609120812:203'						



## Production Material Deliveries in Actual Sequence

Segment: <b>NAD</b>		<b>C:20</b>	<b>1/20</b>		
Description: <b>Name and Address (to specify name and address details).</b>					
Field	Definition	C/M	Value	Notes	
<b>3035</b>	<b>an..3 PARTY QUALIFIER</b>	<b>M</b>	<b>CN</b>	Consignee	
<b>C082</b>	<b>PARTY IDENTIFICATION DETAILS</b>	<b>C</b>			
<b>3039</b>	<b>an..35 Party Id Identification</b>	<b>M</b>	<b>e.g. '0134A'</b>	Ford customer plant code (2 characters)	
<b>C080</b>	<b>PARTY NAME</b>	<b>C</b>			
<b>3036</b>	<b>an..35 Party name</b>	<b>M</b>	<b>FORD WERKE GMBH</b>	or FORD MOTOR COMPANY	
<b>3164</b>	<b>an..35 CITY NAME</b>	<b>C</b>	<b>e.g. 'Cologne'</b>	Customer city location.	
<b>3207</b>	<b>an..3 COUNTRY, CODED</b>	<b>C</b>	<b>e.g. 'DE'</b>	Country codes according to ISO3166	
Segment message: <b>NAD+CN+0134A++FORD WERKE GMBH ++COLOGNE +++DE'</b>					





## Production Material Deliveries in Actual Sequence

Segment: <b>NAD</b>		<b>C:20</b>	<b>2/20</b>		
Description: <b>Name and Address (to specify name and address details).</b>					
Field		Definition	C/M	Value	Notes
<b>3035</b>	<b>an..3</b>	<b>PARTY QUALIFIER</b>	<b>M</b>	<b>CZ</b>	Consignor (vendor)
<b>C082</b>		<b>PARTY IDENTIFICATION DETAILS</b>	<b>C</b>		
<b>3039</b>	<b>an..35</b>	<b>Party Id Identification</b>	<b>M</b>	<b>e.g. 'P68PA'</b>	Vendor GSDB code
<b>C080</b>		<b>PARTY NAME</b>	<b>C</b>		
<b>3036</b>	<b>an..35</b>	<b>Party name</b>	<b>M</b>	<b>e.g. 'Linpac Mouldings'</b>	Vendor Name
<b>3164</b>	<b>an..35</b>	<b>CITY NAME</b>	<b>C</b>	<b>e.g. 'Overpelt'</b>	VENDOR CITY LOCATION
<b>3207</b>	<b>an..3</b>	<b>COUNTRY, CODED</b>	<b>C</b>	<b>e.g. 'BE'</b>	Vendor country code according to ISO3166
Segment message: <b>NAD+CZ+P68PA++LIMPAC MOULDINGS ++OVERPELT +++BE'</b>					



## Production Material Deliveries in Actual Sequence

Segment:	<b>SEQ</b>	<b>M:9999</b>		<b>x/9999</b>	
Description: <b>Sequence Details (to specify the sequence information, 9999 repeatable. within 1 build day).</b>					
Field		Definition	C/M	Value	Notes
<b>1245</b>	<b>an..3</b>	<b>STATUS INDICATOR, CODED</b>	<b>C</b>	1 / 2 / 3 / 4 / 5 / 7	Amendment, Cancel, Creation, No change, Replacement, outside lockin orders
<b>C286</b>		<b>SEQUENCE INFORMATION</b>	<b>C</b>		
<b>1050</b>	<b>an..6</b>	<b>Sequence number</b>	<b>M</b>	e.g. '0001'	Last 4 digits of seq-no. within build date
<b>Segment message: SEQ+3+0001'</b>					

The Status Indicator indicates the root of a sequence:

- 1 = Amendment, the quantity has changed in relation to the previous message.
- 2 = Ignore, the sequence has been cancelled in relation to the previous message.
- 3 = Creation, the sequence belongs to a new order or an existing order is appearing on a new sequence position
- 4 = No change, the sequence belongs to an old order, nothing changed in relation to the previous message.
- 5 = Replacement, Bill of Material of the sequence has changed in relation to the previous message.

### **NEW:**

**7 = Orders outside of lockin period, i.e. not yet available for production. This code applies to Pre-Job#1 or KSK information and should be used for information only.**

Orders have got status 02 (seq+2) if historical comparison found out that the order that was yesterday on a particular position/blend number is no longer available although the build date has not been reached

- Order could have been built ahead of the declared build date
- Order could have been centrally cancelled by Ford Motor Company
- Order could have been rescheduled for another date outside the ILVS horizon.



## Production Material Deliveries in Actual Sequence

Segment: <b>DTM</b>		<b>C:5</b>	<b>1/5</b>		
Description: <b>Date/Time/Period (to specify date and time details).</b>					
Field		Definition	C/M	Value	Notes
<b>C507</b>		<b>DATE/TIME/PERIOD</b>	<b>M</b>		
<b>2005</b>	<b>an..3</b>	<b>Date/time/period qualifier</b>	<b>M</b>	<b>194</b>	194= Start date/time
<b>2380</b>	<b>an..35</b>	<b>Date/time period</b>	<b>C</b>	e.g. '199609120000'	First Sequence date/time
<b>2379</b>	<b>an..3</b>	<b>Date/time/period format qualifier</b>	<b>C</b>	203	203= Qualifier for CCYYMMDDHHMM format.
<b>Segment message: DTM+194:199609120000:203'</b>					

The date/time period is identical to the figure within the BGM segment (build date). No hours and minutes will be transmitted (only zeros).



## Production Material Deliveries in Actual Sequence

Segment:	<b>GIR</b>	<b>C:99</b>				<b>1/99</b>
Description: <b>Related Identification Numbers (to specify the related spec. numbers).</b>						
Field		Definition	C/M	Value	Notes	
<b>7297</b>	<b>an..3</b>	<b>SET IDENTIFICATION QUALIFIER</b>	<b>M</b>	<b>1</b>	1= Free text qualifier	
<b>C206</b>		<b>IDENTIFICATION NUMBER</b>	<b>M</b>			
<b>7402</b>	<b>an..35</b>	<b>Identity number</b>	<b>M</b>	<b>EOC columns 23 - 57</b>	EOC (rest #1)	
<b>7405</b>	<b>an..3</b>	<b>Identity number qualifier</b>	<b>C</b>	<b>AB</b>	EOC identity number qualifier #1	
<b>Segment message: GIR+1+xxRG11942xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx:AB'</b>						

As additional information to the Vehicle Information Number (VIN) Ford transmits the European Order Card (EOC) columns 23 - 80.

In the first GIR segment the columns 23- 57 will be transmitted, in the second GIR segment the columns 58 - 80 will be transmitted.

Please pay attention to the forming of the complete EOC, the first GIR is with identity qualifier AB, the second GIR is with identity qualifier AC.



## Production Material Deliveries in Actual Sequence

Segment: <b>GIR</b>		<b>C:99</b>	<b>2/99</b>		
Description: <b>Related Identification Numbers (to specify the related spec. numbers).</b>					
Field		Definition	C/M	Value	Notes
<b>7297</b>	<b>an..3</b>	<b>SET IDENTIFICATION QUALIFIER</b>	<b>M</b>	<b>1</b>	<b>1= Free text qualifier</b>
<b>C206</b>		<b>IDENTIFICATION NUMBER</b>	<b>M</b>		
<b>7402</b>	<b>an..35</b>	<b>Identity number</b>	<b>M</b>	<b>EOC columns 58 - 80</b>	<b>EOC (rest #2)</b>
<b>7405</b>	<b>an..3</b>	<b>Identity number qualifier</b>	<b>C</b>	<b>AC</b>	<b>EOC identity number qualifier #2</b>
<b>Segment message: GIR+1+xxxxxxxxxxxxxxxxxxxxxxxx:AC'</b>					



## Production Material Deliveries in Actual Sequence

Segment:	<b>GIR</b>	<b>C:99</b>				<b>3/99</b>
Description: <b>Related Identification Numbers (to specify the related spec. numbers).</b>						
Field		Definition	C/M	Value	Notes	
<b>7297</b>	<b>an..3</b>	<b>SET IDENTIFICATION QUALIFIER</b>	<b>M</b>	<b>4</b>	4= Vehicle reference set	
<b>C206</b>		<b>IDENTIFICATION NUMBER</b>	<b>M</b>			
<b>7402</b>	<b>an..35</b>	<b>Identity number</b>	<b>M</b>	<b>e.g. 'RG11942'</b>	EOC columns 25 - 31 / = VIN	
<b>7405</b>	<b>an..3</b>	<b>Identity number qualifier</b>	<b>C</b>	<b>VV</b>	Vehicle identify number (VIN)	
Segment message: <b>GIR+4+RG11942:VV'</b>						



## Production Material Deliveries in Actual Sequence

Segment: <b>LOC</b>		<b>C:5</b>	<b>1/5</b>		
Description: <b>Place/Location Identification (to specify the location).</b>					
Field		Definition	C/M	Value	Notes
<b>3227</b>	<b>an..3</b>	<b>PLACE/LOCATION QUALIFIER</b>	<b>M</b>	<b>54</b>	Manufacturing department
<b>C517</b>		<b>LOCATION IDENTIFICATION</b>	<b>C</b>		
<b>3225</b>	<b>an..25</b>	<b>Place/Location identification</b>	<b>C</b>	e.g. 'B'	Trim line, e.g. 'A/B'
<b>Segment message: LOC+54+B'</b>					

For each trim line the rack has to be prepared separately and the trim line number has to be printed on the rack label.



## Production Material Deliveries in Actual Sequence

Segment: <b>LIN</b>		<b>C:9999</b>		<b>1/9999</b>	
Description: <b>Line Item (to specify the Ford part number).</b>					
Field		Definition	C/M	Value	Notes
<b>C212</b>		<b>ITEM NUMBER IDENTIFICATION</b>	<b>C</b>		
<b>7140</b>	<b>an..35</b>	<b>Item number (part number)</b>	<b>C</b>	e.g. ' 93BB F23942BM1ATF '	WERS format, Prefix(6,rb), Base(8,rb), Suffix(8,lb)
<b>7143</b>	<b>an..3</b>	<b>Item number type, coded</b>	<b>C</b>	IN	Buyers item number
<b>Segment message: LIN+++ 93BB F23942BM1ATF:IN'</b>					

The part/item number is transmitted in line with release and DCI file formats VDA 4905 and VDA 4915. The Ford part number has the following structure:

Prefix	right justified	6 characters
Base	right justified	8 characters
Suffix	left justified	8 characters





## Production Material Deliveries in Actual Sequence

Segment:	IMD	C:10		1/10	
Description: Line Item (to specify the description of the Ford part number).					
Field		Definition	C/M	Value	Notes
C273		ITEM DESCRIPTION	C		
7008	an..35	Item description	C	e.g. 'Verkleidung Zus Vord'	Article description
Segment message: IMD+++:::VERKLEIDUNG ZUS VORD'					



## Production Material Deliveries in Actual Sequence

Segment: <b>DTM</b>		<b>C:5</b>	<b>1/5</b>		
Description: <b>Date/Time/Period (to specify date and time details).</b>					
Field		Definition	C/M	Value	Notes
<b>C507</b>		<b>DATE/TIME/PERIOD</b>	<b>M</b>		
<b>2005</b>	<b>an..3</b>	<b>Date/time/period qualifier</b>	<b>M</b>	<b>2</b>	Shipment date/time, requested (Call-off date)
<b>2380</b>	<b>an..35</b>	<b>Date/time period</b>	<b>C</b>	e.g. '19960911'	Shipment Date ex Supplier
<b>2379</b>	<b>an..3</b>	<b>Date/time/period format qualifier</b>	<b>C</b>	102	102= Qualifier for CCYYMMDD format.
<b>Segment message: DTM+2:19960911:102'</b>					

The shipment date ex supplier is based on the scheduled build date and includes float and transit figures.



## Production Material Deliveries in Actual Sequence

Segment: <b>LOC</b>		<b>C:5</b>	<b>1/5</b>		
Description: <b>Place/Location Identification (to specify the location).</b>					
Field		Definition	C/M	Value	Notes
<b>3227</b>	<b>an..3</b>	<b>PLACE/LOCATION QUALIFIER</b>	<b>M</b>	<b>11</b>	Place/port of discharge
<b>C517</b>		<b>LOCATION IDENTIFICATION</b>	<b>C</b>		
<b>3224</b>	<b>an..17</b>	<b>Place/Location identification</b>	<b>C</b>	e.g. '1Y0'	Plant's Receiving Location
<b>Segment message: LOC+11+1YB'</b>					



## Production Material Deliveries in Actual Sequence

Segment: <b>LOC</b>		<b>C:5</b>	<b>2/5</b>		
Description: <b>Place/Location Identification (to specify the Point of Fit).</b>					
Field		Definition	C/M	Value	Notes
<b>3227</b>	<b>an..3</b>	<b>PLACE/LOCATION QUALIFIER</b>	<b>M</b>	<b>159</b>	Additional internal
<b>C517</b>		<b>LOCATION IDENTIFICATION</b>	<b>C</b>		
<b>3224</b>	<b>an..17</b>	<b>Place/Location identification</b>	<b>C</b>		Name or code of the unload location, contains up to 5 digits
Segment message: <b>LOC+159+WORKL'</b>					



## Production Material Deliveries in Actual Sequence

Segment: <b>QTY</b>		<b>C:100</b>		<b>1/100</b>	
Description: <b>Quantity (to specify the quantity).</b>					
Field		Definition	C/M	Value	Notes
<b>C186</b>		<b>QUANTITY DETAILS</b>	<b>M</b>		
<b>6063</b>	<b>an..3</b>	<b>Quantity qualifier</b>	<b>M</b>	131	131= Delivery quantity qualifier (net qty) Net Quantity according to ODETTE Dictionary ODDC 25
<b>6060</b>	<b>an..15</b>	<b>Quantity</b>	<b>M</b>	e.g. '001'	
<b>6411</b>	<b>an..3</b>	<b>Measure unit qualifier</b>	<b>C</b>	PCE	
<b>Segment message: QTY+131:050:PCE'</b>					

The code which is used as measure unit qualifier is the one developed by the Working Party for the facilitation of international trade procedures of the UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE (UN/ECE).

GRM =  
Gram  
KGM =  
Kilogram  
PCE = Piece or  
Each  
MTR = Meter  
MTK = Square Meter  
DMQ = Litre or Cubic Decimetre



## Production Material Deliveries in Actual Sequence

Segment:	<b>QTY</b>	<b>C:100</b>		<b>2/100</b>	
Description: <b>Quantity (to specify the quantity).</b>					
Field		Definition	C/M	Value	Notes
<b>C186</b>		<b>QUANTITY DETAILS</b>	<b>M</b>		
<b>6063</b>	<b>an..3</b>	<b>Quantity qualifier</b>	<b>M</b>	167	167= Delivery quantity qualifier (Cum qty)
<b>6060</b>	<b>an..15</b>	<b>Quantity</b>	<b>M</b>	e.g. '0000001500'	Cumulative Quantity
<b>6411</b>	<b>an..3</b>	<b>Measure unit qualifier</b>	<b>C</b>	PCE	Unit of Measure
Segment message: <b>QTY+167:0000001500:PCE'</b>					



## Production Material Deliveries in Actual Sequence

Segment:	<b>UNT</b>	<b>M:1</b>	Message Number: <b>1</b>		
Description: <b>Message Trailer (to end and check the completeness of a message).</b>					
Field		Definition	C/M	Value	Notes
<b>0074</b>	<b>n...6 *</b>	<b>Number of segments in a message</b>	<b>M</b>	<b>e.g. '000018'</b>	Use for reconciliation
<b>0062</b>	<b>an..14</b>	<b>Message reference number</b>	<b>M</b>	<b>e.g. '00000000000001'</b>	Same as 0062 in UNH
<b>Segment message: UNT+000018+00000000000001'</b>					

\*Field 0074: The number of segments in a message is usually shown as a 6 digit value. If the counter exceeds the number 999.999 it is shown as a 7 digit value.



## Production Material Deliveries in Actual Sequence

Segment: <b>UNZ</b>		<b>M:1</b>				
Description: <b>Interchange Trailer (to end and check the completeness of an interchange).</b>						
Field		Definition	C/M	Value	Notes	
<b>0036</b>	<b>n..6</b>	<b>Interchange control count</b>	<b>M</b>	<b>e.g. '0001' = 1 x UNH - UNT</b>	Number of messages within one transmission.	
<b>0020</b>	<b>an..14</b>	<b>Interchange Control Reference</b>	<b>M</b>	<b>e.g. '000000002/01'</b>	Same as 0020 in UNB.	
<b>Segment message: UNZ+000001+000000002/01'</b>						





## Production Material Deliveries in Actual Sequence

### Sample EDI ILVS Message DELJIT D.96A

#### Interchange Summary

<u>Segment Name</u>	<u>Segment Message</u>
UNB	UNB+UNOA:1+FORD+P68PA::SP68PAS1+960912:1030+000000002/01'
UNH	UNH+00000000000001+DELJIT:D:96A:UN'
BGM	BGM+30+19960912'
DTM	DTM+137:199609120812:203'
NAD	NAD+CN+0134A++FORD WERKE GMBH ++COLOGNE +++DE'
NAD	NAD+CZ+P68PA++LIMPAC MOULDINGS ++OVERPELT +++BE'
SEQ	SEQ+3+0001'
DTM	DTM+194:199609120000:203'
GIR	GIR+1+xxRG11942xxxxxxxxxxxxxxxxxxxxxxxx:AB'



## Production Material Deliveries in Actual Sequence

GIR GIR+1+xxxxxxxxxxxxxxxxxxxxxxxx:AC'  
GIR GIR+4+RG11942:VV'  
LOC LOC+54+B'  
LIN LIN+++ 93BB F23942BM1ATF :IN'  
IMD IMD+++:::VERKLEIDUNG ZUS VORD'  
DTM DTM+2:19960911:102'  
LOC LOC+11+1Y0'  
LOC LOC+159+S01'  
QTY QTY+131:001:PCE'  
QTY QTY+167:0000001500:PCE'  
UNT UNT+000018+00000000000001'  
UNZ UNZ+000001+000000002/01'



## Production Material Deliveries in Actual Sequence

# Ford Subset for Sequence Messages – Odette Synchro

<u>Ford Field Name</u>	<u>ODETTE tag</u>	<u>Type/Lgth</u> <u>Example</u>	<u>Mess.</u>	<u>Remark</u>
<b><u>Segment UNH</u></b>				
<i>Occurrence:</i>				
<b><u>Message Header</u></b>				<b>1 / file</b>
Transmission No. <i>the</i>	UNH 0062	n 5	00177	<i>equals</i>
				<i>number in the file name</i>
Message Type	UNH 0065	an 6	SYNCRO	
Message Vers. No.	UNH 0052	n 1	2	
<b><u>Segment MID</u></b>				
<b><u>Message Identification</u></b>				<b><i>Occurrence:</i></b> <b>1 / file</b>
Transm. No.	MID 1004	n 5	00177	
Transmission Date	MID 2007	n 6	940622	
Transmission Time	MID 2002	n 4	1606	
<b><u>Segment CDT</u></b>				
<b><u>Consignor Details</u></b>				<b><i>Occurrence:</i></b> <b>1 / file</b>
Supplier Code	CDT 3296	an 5	TESTF	
<b><u>Segment CSG</u></b>				
<b><u>Consignor Details</u></b>				<b>1 / file</b>
Ford Plant Code <i>AutoEuropa:</i>	CSG 3296	an..2	2C	
<b><u>Segment SEQ</u></b>				
<b><u>Sequence</u></b>				<b><i>Occurrence:</i></b> <b>1 / file</b>
Record Qualifier <i>Create</i>	SEQ 1241	an 2	CR	<i>CR =</i>



## Production Material Deliveries in Actual Sequence

*DE = Delete  
only for  
predicted  
sequence to  
correct prior  
data*

Prod. Seq. No.	SEQ 7910	n 4	0122	
VIN	SEQ 1844	an 7	RU13913	
ECSS Seq. No. <i>day</i>	SEQ 7905	n 6	220122	22 =

*0122 =  
sequence no*

### **Segment ARD**

***Occurrence:***

#### **Article Details**

***n / file***

Part Number	ARD 7304	an 22	93BB00A13065AGZKAF	
				<i>Contains leading spaces to separate Prefix (6 digits) Base (8 digits) Suffix (8 digits)</i>
Part Name	ARD 7008	an 20	(blank)	<i>blank in example file</i>

### **Segment SDD**

***Occurrence:***

#### **Sequence Delivery Details**

***n / file***

***1 / ARD segment***

Call-In-Date	SDD 2803	n 6	940622	
Call-In-Time	SDD 2002	n 4	1650	
Release Type Code <i>Predicted Seq. (Time Qualifier) Early Warning</i>	SDD 7903	n 1	3	6 = 7 =
				<i>3 = Late Warning 15 = OffLine</i>
Req. Quantity	SDD 6060	n 7	1	
Unit of Measure	SDD 6410	an 3	PCE	



## Production Material Deliveries in Actual Sequence

### Segment SUB

*Occurrence:*

#### Sub Address

*n / file*

*1 / ARD segment*

Rec. Location SUB 3920	an 2	2C	<i>AutoEuropa:</i>
Usage Location	SUB 3922	an 7	TRIMC

### Segment FTX

#### Free Text

*Occurrence:*

*1 / file*

Free Text FTX 4440	an 70	(blank)	<i>Content: tbe</i>
--------------------	-------	---------	---------------------

### Segment UNT

#### Message Trailer

*Occurrence:*

*1 / file*

No. of Segments	UNT 0074	n..3	010
Transmission No.. as in	UNT 0062	n..5	00177 same segment UNH

Example: **Sequence Message:** LW100177.DAT

```

UNH+00177+SYNCRO:2'
MID+00177+940622:1606'
CDT+:::::TESTF'
CSG+:::::2C'
SEQ+CR+0122+RU13913:220122'
ARD+ 93BB00A13065AGZKAF::'
SDD+940622:1650:::3+1:PCE'
SUB+:2C+:TRIMC'
FTX+'
UNT+009+00177'

```



## Production Material Deliveries in Actual Sequence

### 2. Glossary of Terms

<b>ASN</b>	<b>Advanced Shipping Notice</b>
<b>C.I.F.</b>	<b>Cost Insurance Freight</b>
<b>CMMS</b>	<b>Common Manufacturing Management System</b>
<b>DCI</b>	<b>Daily Call In</b>
<b>EDI</b>	<b>Electronic Data Interchange</b>
<b>EOC</b>	<b>European Order Card (customer order specification)</b>
<b>FAO</b>	<b>Ford Automotive Operations</b>
<b>FEU</b>	<b>Field Evaluation Units</b>
<b>FPS</b>	<b>Ford Production System</b>
<b>GSEC</b>	<b>Global Supplier Electronic Communications</b>
<b>HMRS</b>	<b>Hourly Material Requirement System</b>
<b>IPMF</b>	<b>In Plant Material Flow System</b>
<b>ISDN</b>	<b>Integrated Services Digital Network</b>
<b>MP&amp;L</b>	<b>Material Planning and Logistics organization</b>
<b>MP&amp;L SP</b>	<b>MP&amp;L Systems Planning and Implementation</b>
<b>OFTP</b>	<b>Odette File Transfer Protocol</b>
<b>POP</b>	<b>Pay On Production</b>
<b>PPM</b>	<b>Pre Production Management</b>
<b>PS&amp;R</b>	<b>Programming, Scheduling and Releasing organization</b>
<b>PVS</b>	<b>Plant Vehicle Scheduling</b>
<b>SDLC</b>	<b>Synchronous Data Link Communication</b>
<b>SPI</b>	<b>Systems Planning &amp; Implementation</b>
<b>SVO</b>	<b>Special Vehicle Orders</b>
<b>VIN</b>	<b>Vehicle Identification Number</b>
<b>VS&amp;D</b>	<b>Vehicle Scheduling &amp; Distribution</b>
<b>X.25</b>	<b>Supplier Communication Protocol</b>
<b>YTD</b>	<b>Year to Date</b>