

Freightliner LLC

866 Production Sequence

VERSION: ANSI ASC X12 3010 DRAFT

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866 Production Sequence

Functional Group=**SQ**

This standard provides the format and establishes the data contents of the Production Sequence Transaction Set within the context of an Electronic Data Interchange (EDI) environment. This transaction set provides for the receiver of goods to request the order in which shipments of goods arrive, or to specify the order in which the goods are to be unloaded from the conveyance method, or both. This specifies the sequence in which the goods are to enter the materials handling process, or are to be consumed in the production process, or both. This transaction set shall not be used to authorize labor, materials, or other resources. This transaction set shall not be used to revise any product characteristic specification.

Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>
010	ST	Transaction Set Header	M	1		
020	BSS	Beginning Segment For Shipping Schedule/Production Sequence.	M	1		
030	UIT	Unit Detail	O	1		
LOOP ID - N1					≥1	
040	N1	Name	O	1		

Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>
LOOP ID - DTM					100	
110	DTM	Date/Time Reference	M	1		
130	QTY	Quantity	O	1		
140	REF	Reference Numbers	O	>1		
LOOP ID - LIN					≥1	
150	LIN	Item Identification	O	1		
170	NTE	Note/ Special Instruction	O	2		

Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>
180	CTT	Transaction Totals	M	1		N3/180

Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>
190	SE	Transaction Set Trailer	M	1		

Note:

Purpose

The 866 (Production Sequence), also known as Line Sequence, transaction set provides the ability for Freightliner to convey a precise shipping schedule to its suppliers and is intended to supplement the 830 (Planning Schedule w/ Release Capability) transaction set. This transaction set must be used to determine which parts/quantities to ship and when in lieu of using the 830 when implemented with a supplier, however, the 866 shall not be used to authorize labor, materials or other resources. Furthermore, shipments from a line sequence supplier (typically on a daily basis) shall be physically organized in such a way that the material can be unloaded from the shipping

container at the ship-to location in vehicle build/assembly sequence, i.e. parts for build sequence #001 vehicle are first off the trailer, #002 next, and so on. The material should also be grouped in the container by shop address for each vehicle so all part(s) for vehicle #001 destined for shop address XXXXX in the plant for example are unloaded together first, followed by YYYYY, etc., then repeat for vehicle #002, etc. The 830 transaction set should be used by the supplier for long range planning/forecasting only (requirements beyond the 866 horizon end date) for part numbers included in the 866.

NOTE: It is possible for a single supplier to provide material to Freightliner manufacturing locations via line sequence (866), line set (see 862 (Shipping Schedule) transaction), and/or standard release (see 830 (Planning Schedule w/Release Capability) transaction) mechanisms; the 866 and 862 transactions take precedence over the 830 for part numbers included as applicable.

Use of this transaction set will facilitate the practice of Just-In-Time (JIT) manufacturing regarding parts that are consumed on a regular basis in the assembly process and are per serially allocated, i.e. specific occurrences of line sequence parts are to be assembled on/within specific vehicles. Shipping schedules for parts not per serially allocated are conveyed via the 862 (Shipping Schedule) transaction set. Therefore, the primary difference between the 866 and 862 transaction sets is the inclusion of vehicle serial numbers (with assembly/build sequence for each at ship-to location) in the 866.

Contents/Organization

An EDI 866 transmission (ISA through IEA segment) can consist of multiple transaction sets, one transaction set (ST through SE segment) per Ship-to location. Transaction sets are presented in Ship-to location sequence within a transmission.
Contents/Organization (Continued)

Within each transaction set, requirements are sequenced by requested delivery date (DTM loop), job ("build/assembly") sequence, and Freightliner's part number. Shipping requirements for each ship-to location will span a delivery date range from current date (plus lead time offset) through 1 - 20 production days out into the future; this range (which can vary by ship-to location) is maintained by the Material Planning department and will be agreed upon with the supplier when the transaction is implemented
856 (Ship Notice/Manifest) transactions received from the supplier will not be netted against the requirements, i.e. the quantities presented reflect the amount of each part to be consumed in the assembly process by vehicle, in other words, gross requirements are being conveyed. It is assumed that no safety stock (additional quantity on hand) is being maintained for parts included at the ship-to location; the intention is for this material to be fed directly into the build/assembly process as required. The supplier must ship the parts included (see LIN segment) for the quantities specified (see QTY segment) so they arrive at the Freightliner ship-to location on the date specified (see DTM segment); no ship quantity calculations are necessary based on the 866 data.

NOTE: It will be requested that line sequence suppliers include REF*VT segments in the 856 transaction to Freightliner for parts shipped via the 866. The REF*VT segment indicates for which vehicle serial number(s) the material is being shipped and will cause Freightliner's system to flag the parts as shipped. Part/vehicle serial number combinations which are flagged as shipped will not be included in subsequent 866 transaction data to the supplier; this becomes significant in the event that a vehicle is rescheduled out into the future after material and an 856 transaction has been shipped/transmitted to Freightliner. In this case, if a shipped part/vehicle number combination has not been flagged properly in Freightliner's system via a REF*VT segment, 866 data for the vehicle will be regenerated and transmitted when the vehicle's scheduled chassis start date reenters the supplier's 866 data horizon, which in turn may result in duplicate shipments of material from the supplier.

Example:

```
ST*866*000001.
BSS*05*01*960701*JS*960701*960724*01.
UIT*EA.
N1*SI*FTL.
N1*SU*VEND.
N1*ST*TMP*92*001.
DTM*002*960701.
QTY*01*001.
REF*LF*A.
LIN**BP*CTLASC 000      *VV*699497*JS*007*PO*A01997*PL*960*ZZ*448AS*AB*756-C04610.
LIN**BP*DMSSA12812 2AF*VV*699497*JS*007*PO*A01997*PL*372*ZZ*448AS*AB*756-C04610.
LIN**BP*DMSSA12326 2AN*VV*699497*JS*007*PO*A01997*PL*358*ZZ*448AS.
NTE*ZZZ*ARMREST DRIVER DUAL -NO PASSENGER .
NTE*ZZZ*SEAT ARMREST .
CTT*000003.
SE*000016*000001.
```

ST Transaction Set Header

Pos: 010	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

To indicate the start of a transaction set and to assign a control number

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
ST01	143	Transaction Set Identifier Code Description: Code uniquely identifying a Transaction Set.	M	ID	3/3
		<u>Code Name</u> 866 X12.57 Production Sequence			
ST02	329	Transaction Set Control Number Description: Identifying control number assigned by the originator for a transaction set.	M	AN	4/9

BSS Beginning Segment For Shipping Schedule/Production Sequence.

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 7

To transmit identifying numbers, dates and other basic data relating to the transaction set.

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
BSS01	353	Transaction Set Purpose Code Description: Code identifying purpose of transaction set. <u>Code Name</u> 05 Replace	M	ID	2/2
BSS02	127	Reference Number Description: Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	M	AN	2/2
BSS03	373	Date Description: Date (YYMMDD).	M	DT	6/6
BSS04	675	Schedule Type Qualifier Description: Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast. <u>Code Name</u> JS Buyer Production Sequence Schedule	M	ID	2/2
BSS05	373	Date Description: Date (YYMMDD). Note: Horizon Start Date; Will equal current date + lead time offset. Format = YYMMDD.	M	DT	6/6
BSS06	373	Date Description: Date (YYMMDD). Note: Horizon end date will equal horizon start date + N production days, where N = numeric value between 1 - 20.	M	DT	6/6
BSS07	328	Release Number Description: Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction.	C	AN	2/2

Note:

This segment is primarily used to indicate the requirements date horizon which will span current date (plus lead time offset) through 1 - 20 days out into the future depending on how Material Planning sets it up.

UIT Unit Detail

Pos: 030	Max: 1
Heading - Optional	
Loop: N/A	Elements: 1

To specify item unit data

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
UIT01	355	Unit of Measurement Code	M	ID	2/2
Description: Code identifying the basic unit of measurement.					
<u>Code Name</u>					
EA Each					

Note:

This segment is used to convey the Freightliner purchasing unit of measure code for all quantities relating to the part/item numbers in subsequent LIN segments.

N1

Name

Pos: 040	Max: 1
Heading - Optional	
Loop: N1	Elements: 4

To identify a party by type of organization, name and code

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
N101	98	Entity Identifier Code Description: Code identifying an organizational entity or a physical location. <u>Code Name</u> SI Shipping Schedule Issuer ST Ship To SU Supplier/Manufacturer	M	ID	2/2
N102	93	Name Description: Free-form name. Note: If N101 = "SI", then will always = "FTL" indicating "Freightliner Corporation"; If N101 = "SU", then will equal supplier's 4-position Freightliner assigned vendor code. If N101 = "ST", then will = ship-to location's 3-position abbreviation.	C	AN	1/35
N103	66	Identification Code Qualifier Description: Code designating the system/method of code structure used for Identification Code (67). <u>Code Name</u> 92 Assigned by Buyer or Buyer's Agent	C	ID	2/2
N104	67	Identification Code Description: Code identifying a party. Note: Will equal Ship-to location code. (Only when N101 = "ST"). See Appendix C for Freightliner's location codes	C	ID	3/5

Note:

This segment is used to convey the shipping schedule issuer (always will be Freightliner Corporation), supplier, and ship-to location for subsequent shipping requirements (see QTY/LIN segments).

DTM Date/Time Reference

Pos: 110	Max: 1
Detail - Mandatory	
Loop: DTM	Elements: 2

To specify pertinent dates and times

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
DTM01	374	Date/Time Qualifier Description: Code specifying type of date or time, or both date and time. <u>Code Name</u> 002 Delivery Requested	M	ID	3/3
DTM02	373	Date Description: Date (YYMMDD).	C	DT	6/6

Note:

Part numbers in subsequent LIN segments are requested for delivery on date in element DTM02.

QTY Quantity

Pos: 130	Max: 1
Detail - Optional	
Loop: DTM	Elements: 2

To specify quantity information.

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
QTY01	673	Quantity Qualifier Description: Code specifying the type of quantity.	M	ID	2/2
		<u>Code Name</u> 01 Discrete Quantity			
QTY02	380	Quantity Description: Numeric value of quantity.	M	R	1/3

Note:

This segment is used to specify the ship quantity for all part numbers in subsequent LIN segments. A QTY segment where element QTY02 = 001 will immediately follow each DTM segment. If a ship quantity > 001 is required, a QTY segment will immediately follow the LIN segment for part number required as applicable (QTY02 will indicate the quantity required); these additional QTY segments apply to the part number in LIN segment immediately following only! If QTY does not follow LIN, then ship quantity = 001 should be assumed (value in element QTY02 in first QTY segment within DTM loop).

REF Reference Numbers

Pos: 140	Max: >1
Detail - Optional	
Loop: DTM	Elements: 2

To specify identifying numbers.

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
REF01	128	Reference Number Qualifier Description: Code qualifying the Reference Number. <u>Code Name</u> LF Assembly Line Feed Location ZZ Mutually Defined	M	ID	2/2
REF02	127	Reference Number Description: Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier. Note: Multiple Codes: A = Assembly Line A; B = Assembly Line B	C	AN	1/1

Note:

This segment is used to specify on which assembly line (within the ship-to location) the vehicle serial numbers in subsequent LIN segments are scheduled to be built. Presently, only the Cleveland Truck Plant (location code/abbreviation = "004"/"CLE") has multiple assembly lines (two; lines A and B); all others have one only (line A) but this is subject to change.

LIN Item Identification

Pos: 150	Max: 1
Detail - Optional	
Loop: LIN	Elements: 14

To specify basic item identification data.

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
LIN02	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234). <u>Code Name</u> BP Buyer's Part Number	M	ID	2/2
LIN03	234	Product/Service ID Description: Identifying number for a product or service. Note: Freightliner's item number.	M	AN	1/25
LIN04	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234). <u>Code Name</u> VV Motor Vehicle ID Number	O	ID	2/2
LIN05	234	Product/Service ID Description: Identifying number for a product or service. Note: Vehicle serial number requiring part/item number in LIN03.	C	AN	6/6
LIN06	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234). <u>Code Name</u> JS Job Sequence Number	O	ID	2/2
LIN07	234	Product/Service ID Description: Identifying number for a product or service. Note: Vehicle job sequence number, i.e. vehicle serial number in LIN05 will be the Nth vehicle assembled on date/assembly line (see DTM and REF segments for date/line feed location).	C	AN	3/3
LIN08	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234). <u>Code Name</u> PO Purchase Order Number	O	ID	2/2
LIN09	234	Product/Service ID Description: Identifying number for a product or service. Note: Purchase order number associated with part/item number in LIN03.	C	AN	6/6
LIN10	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234). <u>Code Name</u>	O	ID	2/2

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
		PL Purchaser's Order Line Number			
LIN11	234	Product/Service ID Description: Identifying number for a product or service. Note: Purchase order line number associated with part/item number in LIN03.	C	AN	3/3
LIN12	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234). <u>Code Name</u> ZZ Mutually Defined	O	ID	2/2
LIN13	234	Product/Service ID Description: Identifying number for a product or service. Note: Shop address where part/item number in LIN03 will be stored within ship-to location.	C	AN	6/6
LIN14	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234). <u>Code Name</u> AB Assembly PD Part Number Description	O	ID	2/2
LIN15	234	Product/Service ID Description: Identifying number for a product or service. Note: Freightliner bill of material part/item number calling out part/item number in LIN03 on vehicle serial number in LIN05.	C	AN	1/25

Note:

This segment is used to convey the Freightliner part number required and associated vehicle serial/job sequence numbers, purchase order/line numbers, and shop address (storage location) at the ship-to location.

NTE Note/ Special Instruction

Pos: 170	Max: 2
Detail - Optional	
Loop: LIN	Elements: 2

To specify quantity information.

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
NTE01	363	Note Reference Code Note: Always = "ZZZ"	M	ID	3/3
NTE02	3	Note Note: Free-form note.	M	R	1/60

Note:

This segment is included only in 866 data transmitted to vendors that supply seat related material to Freightliner. This segment could follow either an LIN or QTY segment (if the quantity required for that part is greater than one).

CTT Transaction Totals

Pos: 180	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 1

To transmit a hash total for a specific element in the transaction set

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
CTT01	354	Number of Line Items	M	N0	1/6
Description: Total number of line items in the transaction set.					
Note: Total number of LIN loops sent within a transaction.					

SE Transaction Set Trailer

Pos: 190	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
SE01	96	Number of Included Segments Description: Total number of segments included in a transaction set including ST and SE segments.	M	N0	1/6
SE02	329	Transaction Set Control Number Description: Identifying control number assigned by the originator for a transaction set.	M	AN	4/9