866 Production Sequence

Functional Group ID=SQ

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Production Sequence Transaction Set (866) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for the receiver of goods to request the order in which shipments of goods arrive at one or more locations, 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.

Notes:

John Deere Business Partner Note:

866 Business process narrative -- John Deere as the customer

The transaction is used by John Deere to communicate and specify a sequential order in which supplier material is to be loaded for shipment. This allows the receiving facility to unload material in the sequence it is needed on the assembly line.

A supporting Blanket Order or Scheduling Agreement (830 - Planning Schedule with Release Capability) containing the PO number will be sent prior to this 866 - Production Sequence transaction. The PO number should be referenced on any communication regarding this material.

Page No.	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
2	010	ST	Transaction Set Header	M	1		
3	020	BSS	Beginning Segment for Shipping Schedule/Production Sequence	M	1		
			LOOP ID - N1			>1	
5	040	N1	Name	O	1		
6	050	N2	Additional Name Information	O	2		
7	060	N3	Address Information	O	1		
8	070	N4	Geographic Location	O	1		
			LOOP ID - DTM			100	
9	110	DTM	Date/Time Reference	M	1		
			LOOP ID - LIN			>1	
10	150	LIN	Item Identification	O	1		
13	160	REF	Reference Identification	O	>1		
14	170	QTY	Quantity	O	1		
15	195	CTT	Transaction Totals	M	1		n1
16	200	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. The number of line items (CTT01) is the accumulation of the number of DTM segments. If used, hash total (CTT02) is the sum of the value of quantity (QTY02) for each QTY segment.

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: **1** The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set 866 Production Sequence	**M ID 3/3**
M	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M AN 4/9**

Segment: **BSS** **Beginning Segment for Shipping Schedule/Production Sequence**
Position: 020
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To transmit identifying numbers, dates, and other basic data relating to the transaction set
Syntax Notes: **1** At least one of BSS07 or BSS08 is required.
Semantic Notes: **1** Use BSS02 to indicate a document number.
2 Use BSS03 to indicate the date of this document.
3 Use BSS05 to indicate the schedule horizon start date (the date when the schedule begins).
4 Use BSS06 to indicate the schedule horizon end date (the date when the schedule ends).
5 BSS08 is the identifying number for a forecast assigned by the orderer/purchaser.
Comments:
Notes: **John Deere Business Process Note**

The segment always indicates either an original or replacement of the production sequence for any included material numbers. For replacements, the entire schedule of dates and quantities replaces previously communicated delivery plans for the material and orders.

The BSS dates have little significance to Deere, but the standard requires the dates in the transaction.

The codes of "DL"/"SH" and "A" are sent to indicate actual discrete quantity expected delivered/shipped.

- When BSS04 is "DL", the enclosed dates are the expected date of delivery at the customer's dock, so suppliers must consider transportation time in order to determine the required ship date from their facility.
- When BSS04 is "SH", the enclosed dates are the expected date of shipment.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**BSS01**	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set 00 Original 05 Replace	**M ID 2/2**
M	**BSS02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**M AN 1/30**
M	**BSS03**	**373**	**Date** Date expressed as CCYYMMDD **John Deere Business Process Note:** Date the build sequence was created.	**M DT 8/8**
M	**BSS04**	**675**	**Schedule Type Qualifier** Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast JS Buyer Production Sequence Schedule	**M ID 2/2**
M	**BSS05**	**373**	**Date** Date expressed as CCYYMMDD **John Deere Business Process Note:** Schedule horizon start date	**M DT 8/8**
M	**BSS06**	**373**	**Date** Date expressed as CCYYMMDD	**M DT 8/8**

John Deere Business Process Note:

Schedule horizon end date

BSS07	**328**	**Release Number**	**X**	**AN 1/30**
		Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction		
BSS10	**324**	**Purchase Order Number**	**O**	**AN 1/22**
		Identifying number for Purchase Order assigned by the orderer/purchaser		
BSS11	**676**	**Schedule Quantity Qualifier**	**O**	**ID 1/1**
		Code identifying the type of quantities used when defining a schedule or forecast		
		A Actual Discrete Quantities		

Segment: **N1** **Name**
Position: 040
Loop: N1 Optional
Level:
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.
Notes: **John Deere Business Process Note**

Name Loop (N1-N4) can have multiple occurrences. At least one N1 segment will always contain an indicator ("ST") for the ship to location.

There will be an associated DUNS number or another Deere unique number to cross-reference all the address information. If the code "92" is used to indicate a John Deere unique number, the supplier must be sure there is associated address information in the supplier data base or in the 866 data being transmitted.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual ST Ship To	**M ID 2/3**
	N102	**93**	**Name** Free-form name	**X AN 1/60**
	N103	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) 1 D-U-N-S Number, Dun & Bradstreet 92 Assigned by Buyer or Buyer's Agent	**X ID 1/2**
	N104	**67**	**Identification Code** Code identifying a party or other code	**X AN 2/80**

Segment: **N2** **Additional Name Information**
Position: 050
Loop: N1 Optional
Level:
Usage: Optional
Max Use: 2
Purpose: To specify additional names or those longer than 35 characters in length
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**N201**	**93**	**Name** Free-form name	**M AN 1/60**

Segment: **N3** **Address Information**
Position: 060
Loop: N1 Optional
Level:
Usage: Optional
Max Use: 1
Purpose: To specify the location of the named party
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	**N301**	**166**	**Address Information** Address information	**M**	**AN 1/55**
	N302	**166**	**Address Information** Address information	**O**	**AN 1/55**

Segment: **N4** **Geographic Location**
Position: 070
Loop: N1 Optional
Level:
Usage: Optional
Max Use: 1
Purpose: To specify the geographic place of the named party
Syntax Notes: **1** If N406 is present, then N405 is required.
Semantic Notes:
Comments: **1** A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2 N402 is required only if city name (N401) is in the U.S. or Canada.
Notes: **John Deere Business Process Note**

The optional data contained in N405/N406 is the John Deere unloading (possibly receiving gate and dept) storage location. This information is required on the material's shipping documents to insure delivery at the intended location.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes	
N401	**19**	**City Name** Free-form text for city name	**O**	**AN 2/30**
N402	**156**	**State or Province Code** Code (Standard State/Province) as defined by appropriate government agency	**O**	**ID 2/2**
N403	**116**	**Postal Code** Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	**O**	**ID 3/15**
N404	**26**	**Country Code** Code identifying the country	**O**	**ID 2/3**
N405	**309**	**Location Qualifier** Code identifying type of location DE Destination (Shipping)	**X**	**ID 1/2**
N406	**310**	**Location Identifier** Code which identifies a specific location	**O**	**AN 1/30**

Segment: **DTM** **Date/Time Reference**
Position: 110
Loop: DTM Mandatory
Level:
Usage: Mandatory
Max Use: 1
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 002 Delivery Requested 010 Requested Ship	**M**	**ID 3/3**
	DTM02	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**
	DTM03	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	**X**	**TM 4/8**

Segment: **LIN** **Item Identification**
Position: 150
Loop: LIN Optional
Level:
Usage: Optional
Max Use: 1
Purpose: To specify basic item identification data
Syntax Notes:
1 If either LIN04 or LIN05 is present, then the other is required.
2 If either LIN06 or LIN07 is present, then the other is required.
3 If either LIN08 or LIN09 is present, then the other is required.
4 If either LIN10 or LIN11 is present, then the other is required.
5 If either LIN12 or LIN13 is present, then the other is required.
6 If either LIN14 or LIN15 is present, then the other is required.
7 If either LIN16 or LIN17 is present, then the other is required.
8 If either LIN18 or LIN19 is present, then the other is required.
9 If either LIN20 or LIN21 is present, then the other is required.
10 If either LIN22 or LIN23 is present, then the other is required.
11 If either LIN24 or LIN25 is present, then the other is required.
12 If either LIN26 or LIN27 is present, then the other is required.
13 If either LIN28 or LIN29 is present, then the other is required.
14 If either LIN30 or LIN31 is present, then the other is required.
Semantic Notes:
1 LIN01 is the line item identification
Comments:
1 See the Data Dictionary for a complete list of IDs.
2 LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.
Notes: **John Deere Business Process Note**

This segment contains the John Deere material number being ordered, sequence number, and possibly other information realted to the part (see code definitions). The John Deere PO number will also be included on this segment.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
	LIN01	**350**	**Assigned Identification** Alphanumeric characters assigned for differentiation within a transaction set	**O**	**AN 1/20**
M	**LIN02**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) BP Buyer's Part Number	**M**	**ID 2/2**
M	**LIN03**	**234**	**Product/Service ID** Identifying number for a product or service	**M**	**AN 1/48**
	LIN04	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) JS Job Sequence Number RC Returnable Container Number **John Deere Business Partner Note:** non-SAP units only	**X**	**ID 2/2**
	LIN05	**234**	**Product/Service ID** Identifying number for a product or service **John Deere Business Process Note:** This value specifies a job grouping associated with the material loading/building sequence.	**X**	**AN 1/48**
	LIN06	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) CR Contract Number	**X**	**ID 2/2**

		EC	Engineering Change Level		
		ON	Customer Order Number		
		RC	Returnable Container Number		
			John Deere Business Partner Note:		
			non-SAP units only		
		VP	Vendor's (Seller's) Part Number		
LIN07	**234**	**Product/Service ID**		**X**	**AN 1/48**
		Identifying number for a product or service			
		John Deere Business Process Note:			
		Paired elements LIN06/LIIN07 thru LIN14/LIN15 will be sent based on the dynamic existence of data. The qualifier must be used in identifying the business relevance of the value.			
LIN08	**235**	**Product/Service ID Qualifier**		**X**	**ID 2/2**
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
		CR	Contract Number		
		EC	Engineering Change Level		
		ON	Customer Order Number		
		RC	Returnable Container Number		
			John Deere Business Partner Note:		
			non-SAP units only		
		VP	Vendor's (Seller's) Part Number		
LIN09	**234**	**Product/Service ID**		**X**	**AN 1/48**
		Identifying number for a product or service			
		John Deere Business Process Note:			
		Paired elements LIN06/LIIN07 thru LIN14/LIN15 will be sent based on the dynamic existence of data. The qualifier must be used in identifying the business relevance of the value.			
LIN10	**235**	**Product/Service ID Qualifier**		**X**	**ID 2/2**
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
		CR	Contract Number		
		EC	Engineering Change Level		
		ON	Customer Order Number		
		RC	Returnable Container Number		
			John Deere Business Partner Note:		
			non-SAP units only		
		VP	Vendor's (Seller's) Part Number		
LIN11	**234**	**Product/Service ID**		**X**	**AN 1/48**
		Identifying number for a product or service			
		John Deere Business Process Note:			
		Paired elements LIN06/LIIN07 thru LIN14/LIN15 will be sent based on the dynamic existence of data. The qualifier must be used in identifying the business relevance of the value.			
LIN12	**235**	**Product/Service ID Qualifier**		**X**	**ID 2/2**
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
		CR	Contract Number		
		EC	Engineering Change Level		
		ON	Customer Order Number		
		RC	Returnable Container Number		
			John Deere Business Partner Note:		
			non-SAP units only		

		VP	Vendor's (Seller's) Part Number		
LIN13	**234**	**Product/Service ID**		**X**	**AN 1/48**
		Identifying number for a product or service			
		John Deere Business Process Note:			
		Paired elements LIN06/LIIN07 thru LIN14/LIN15 will be sent based on the dynamic existence of data. The qualifier must be used in identifying the business relevance of the value.			
LIN14	**235**	**Product/Service ID Qualifier**		**X**	**ID 2/2**
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
		CR	Contract Number		
		EC	Engineering Change Level		
		ON	Customer Order Number		
		RC	Returnable Container Number		
			John Deere Business Partner Note:		
			non-SAP units only		
		VP	Vendor's (Seller's) Part Number		
LIN15	**234**	**Product/Service ID**		**X**	**AN 1/48**
		Identifying number for a product or service			
		John Deere Business Process Note:			
		Paired elements LIN06/LIIN07 thru LIN14/LIN15 will be sent based on the dynamic existence of data. The qualifier must be used in identifying the business relevance of the value.			

Segment: **REF** **Reference Identification**
Position: 160
Loop: LIN Optional
Level:
Usage: Optional
Max Use: >1
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:
Notes: **John Deere Business Process Note**

Up to 5 occurrences of the REF segment may be sent as defined by John Deere.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification DK Dock Number DP Department Number KB Beginning Kanban Serial Number LF Assembly Line Feed Location PC Production Code SE Serial Number	**M ID 2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **QTY** **Quantity**
Position: 170
Loop: LIN Optional
Level:
Usage: Optional
Max Use: 1
Purpose: To specify quantity information
Syntax Notes: **1** At least one of QTY02 or QTY04 is required.
2 Only one of QTY02 or QTY04 may be present.
Semantic Notes: **1** QTY04 is used when the quantity is non-numeric.
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity 01 Discrete Quantity	**M ID 2/2**
	QTY02	**380**	**Quantity** Numeric value of quantity	**X R 1/15**
	QTY03	**C001**	**Composite Unit of Measure** To identify a composite unit of measure (See Figures Appendix for examples of use)	**O**
M	**C00101**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 004010 Data Element Dictionary for acceptable code values.	**M ID 2/2**

Segment: **CTT** **Transaction Totals**
Position: 195
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Syntax Notes: **1** If either CTT03 or CTT04 is present, then the other is required.
2 If either CTT05 or CTT06 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment is intended to provide hash totals to validate transaction completeness and correctness.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**CTT01**	**354**	**Number of Line Items** Total number of line items in the transaction set	**M N0 1/6**

Segment: **SE** **Transaction Set Trailer**
Position: 200
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: **1** SE is the last segment of each transaction set.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments	**M N0 1/10**
M	**SE02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M AN 4/9**

John Deere Guideline for EDI 866 Production Sequence

Based on AIAG Implementation Guideline - Version 4010

Sample EDI Transmission

ISA*00* *00* *01*888123371 *01*995268659*110801*2220*U*00401*000000607*0*P*>
GS*SQ*888123371*995268659*20110801*2220*607*X*004010
ST*866*6070001
BSS*05*0000000117778396*20110801*JS*20110801*20110801*20110801
N1*ST*John Deere Factory*1*995268659
N3*20600 North Road
N4*ANYTOWN*IA*52731-974*US*DE*126
DTM*002*20110808
LIN*00010*BP*AT506694*JS*00000006000244*CR*00324212*ON*0004936913*VP*16685
REF*SE*1234567890
QTY*01*1*SH
LIN*00010*BP*AT506698*JS*00000006000245*CR*00324221*ON*0004970119*VP*16687
REF*SE*1234567891
QTY*01*1*SH
LIN*00010*BP*AT506698*JS*00000006000246*CR*00324221*ON*0004974568*VP*16687
REF*SE*1234567892
QTY*01*1*SH
LIN*00010*BP*AT506698*JS*00000006000247*CR*00324221*ON*0004970120*VP*16687
REF*SE*1234567893
QTY*01*1*SH
LIN*00010*BP*AT506694*JS*00000006000248*CR*00324212*ON*0004802313*VP*16685
REF*SE*1234567894
QTY*01*1*SH
LIN*00010*BP*AT506698*JS*00000006000249*CR*00324221*ON*0004970121*VP*16687
REF*SE*1234567895
QTY*01*1*SH
LIN*00010*BP*AT306694*JS*00000006100412*CR*00324212*ON*0005081870*VP*16685
REF*SE*1234567896
QTY*01*1*SH
LIN*00010*BP*AT306693*JS*00000006100413*CR*00324199*ON*0004969999*VP*16686
REF*SE*1234567897
QTY*01*1*SH
LIN*00010*BP*AT306696*JS*00000006100414*CR*00324211*ON*0004970010*VP*16692
REF*SE*1234567898
QTY*01*1*SH
LIN*00010*BP*AT076698*JS*00000006100415*CR*00324221*ON*0004969115*VP*16687
REF*SE*1234567899
QTY*01*1*SH
LIN*00010*BP*AT076695*JS*00000006100416*CR*00324207*ON*0004970006*VP*16197
REF*SE*2345678901
QTY*01*1*SH
LIN*00010*BP*AT076696*JS*00000006100417*CR*00324211*ON*0005029429*VP*16692
REF*SE*2345678902
QTY*01*1*SH
LIN*00010*BP*AT076694*JS*00000006100418*CR*00324203*ON*0005099531*VP*16685
REF*SE*2345678903
QTY*01*1*SH
LIN*00010*BP*AT306694*JS*00000006100419*CR*00324203*ON*0004969998*VP*16685
REF*SE*2345678904
QTY*01*1*SH
LIN*00010*BP*AT346697*JS*00000006100420*CR*00324216*ON*0004944780*VP*16688
REF*SE*2345678905
QTY*01*1*SH
CTT*1*15
SE*53*6070002