

830 - Material Release to Suppliers
Caterpillar Inc.

| | |
|---|----|
| PREFACE | 3 |
| TRANSACTION SEQUENCE WITH LEVELS | 4 |
| ASC X12 REQUIRED CONTROL DATA | 5 |
| SEGMENT/ELEMENT DEFINITION EXPLANATION | 6 |
| ISA-INTERCHANGE CONTROL TRAILER SEGMENT..... | 8 |
| GS-FUNCTIONAL GROUP HEADER SEGMENT..... | 10 |
| ST -TRANSACTION SET HEADER SEGMENT | 11 |
| BFR-BEGINNING FORECAST/MATERIAL RELEASE..... | 12 |
| N1-ORGANIZATION NAME SEGMENT | 13 |
| N2-ADDITIONAL NAME SEGMENT | 14 |
| N3-STREET ADDRESS SEGMENT..... | 15 |
| N4-CITY / STATE SEGMENT | 16 |
| PER-COMMUNICATION CONTACT | 17 |
| LIN-LINE ITEM DETAIL SEGMENT | 18 |
| UIT-UNIT DETAIL | 19 |
| MEA-MEASUREMENTS SEGMENT | 20 |
| PER-COMMUNICATION CONTACT | 21 |
| SDP-SHIP/DELIVERY PATTERN | 22 |
| FST-FORECAST SCHEDULE | 23 |
| AUTH-RESOURCE AUTHORIZATION | 24 |
| SHP-SHIPPED/RECEIVED INFORMATION..... | 25 |
| NTE-NOTES SEGMENT..... | 26 |
| CTT-TRANSACTION TOTALS SEGMENT..... | 27 |
| SE-TRANSACTION SET TRAILER SEGMENT | 28 |
| GE-FUNCTIONAL GROUP TRAILER SEGMENT..... | 29 |
| IEA-INTERCHANGE CONTROL TRAILER SEGMENT | 30 |
| TRANSACTION SAMPLE DATA - COMMUNICATION | 31 |
| TRANSACTION SAMPLE DATA-UNFORMED STEEL S..... | 34 |
| APPENDIX B - SHIP/DELIVERY PATTERN TABLE..... | 36 |

PREFACE

This writing is intended to give details on how to process an electronic Material Release transaction set 830 as sent by Caterpillar.

Any questions or concerns regarding the Caterpillar EDI Material Release and/or Caterpillar's EDI communication network may be directed to:

Caterpillar Inc.
EDI Services - AD3321
600 W. Washington Street
East Peoria, IL 61630

(800) 435-7334 Ext. 3
(309) 675-0834 Ext. 3

TRANSACTION SEQUENCE WITH LEVELS

Shown below are the segments used by the Material Release data transaction set 830.

| LEVEL | TYPE | DATA CONTAINED IN THE SEGMENT |
|------------------|------|-------------------------------------|
| HEADER | ISA | INTERCHANGE CONTROL HEADER |
| | GS | FUNCTIONAL GROUP HEADER |
| | ST | TRANSACTION SET HEADER |
| | BFR | BEGINNING FORECAST/MATERIAL RELEASE |
| | N1 | NAME |
| | N2 | ADDITIONAL NAME |
| | N3 | STREET ADDRESS |
| | N4 | CITY / STATE |
| | PER | COMMUNICATION CONTACT |
| ----- | | |
| DETAIL (ITEM) | LIN | LINE ITEM DETAIL |
| | UIT | UNIT DETAIL |
| | MEA | MEASUREMENTS SEGMENT |
| | PER | COMMUNICATION CONTACT |
| | SDP | SHIP/DELIVERY PATTERN |
| | FST | FORECAST SCHEDULE |
| | ATH | RESOURCE AUTHORIZATION |
| | SHP | SHIPPED/RECEIVED INFORMATION |
| | NTE | NOTES SEGMENT |
| ----- | | |
| SUMMARY | CTT | TRANSACTION TOTALS SEGMENT |
| | SE | TRANSACTION SET TRAILER |
| | GE | FUNCTIONAL GROUP TRAILER |
| | IEA | INTERCHANGE CONTROL TRAILER |

ASC X12 REQUIRED CONTROL DATA

SEGMENT SEQUENCE REQUIREMENTS

1. 'ISA' must be the first segment or preceded by 'IEA'.
2. 'IEA' must be the last segment.
3. 'GS' must be preceded by 'ISA' or 'GE'.
4. 'ST' must be preceded by 'GS' or 'SE'.
5. 'GE' must be preceded by 'SE'.

EJECT SCREEN

6. 'IEA' must be preceded by 'GE'.
7. The interchange control number in 'IEA' (element IEA02) must be the same as the previous 'ISA' (element ISA13).
8. The data interchange control number in 'GE' (element GE02) must be the same as the previous 'GS' (element GS06).
9. The transaction set control number in 'SE' (element SE02) must be the same as the previous 'ST' (element ST02).

REQUIRED CONTROL COUNTS

1. The 'number of included functional groups' in 'IEA' (element IEA01) must equal the number of 'GS' segments since the previous 'ISA'.
2. The 'number of included transaction sets' in 'GE' (element GE01) must equal the number of 'ST' segments since the previous 'GS'.

EJECT SCREEN

3. The 'number of included segments' in 'SE' (element SE01) must equal the number of segments read since the previous 'ST'. The 'ST' and 'SE' segments are included in this count.
4. The 'quantity hash total' in 'CTT' (element CTT02) must equal the sum of the 'quantity' elements in the 'FST' segment (element FST01). Only the segments since the previous 'ST' are included in the summation.

SEGMENT/ELEMENT DEFINITION EXPLANATION

Shown below is a segment/element sample of the Caterpillar Material Release data transaction set 830. The elements are numbered with an explanation.

(1)

BFR-BEGINNING FORCAST/MATERIAL RELEASE

(2)

BFR*05**1781*DL*A*960315*961210*960316***GAHB51210@

A B C D E F G H I

EJECT PAGE

| (3) CONTAINS DESCRIPTIVE DATA IDENTIFYING THE PURCHASE ORDER RELEASE. (THERE WILL BE A "BFR" SEGMENT FOR EACH RELEASE.) | | | | |
|---|-------------------------|--------------------------|--|--|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | DESCRIPTION | | |
| A. BFR | (AN-3) REQUIRED | DATA SEGMENT IDENTIFIER. | | |
| (4) B. BFR01 | (5) 353 (6) (ID-2) | (7) REQUIRED | (8) TRANSACTION SET PURPOSE. | |
| | | (9) | 00 = ORIGINAL RELEASE. 02 = ADD. 04 = CHANGE. 05 = REPLACE "THIS RELEASE SUPERSEDES ALL PREVIOUS RELEASES". 06 = CONFIRMATION. | |
| C. BFR03 | 328 (AN-4) | REQUIRED | RELEASE NUMBER. | |
| D. BFR04 | 675 (ID-2) | REQUIRED | FORECAST TYPE QUALIFIER. DL = DELIVERY BASED. SH = SHIPMENT BASED. | |
| E. BFR05 | 676 (ID-1) | REQUIRED | FORECAST QUANTITY QUALIFIER. A = ACTUAL DISCRETE QUANTITIES. | |
| F. BFR06 | 373 (DATE-6) | REQUIRED | FORECAST HORIZON START DATE. | |
| G. BFR07 | 373 (DATE-6) | REQUIRED | FORECAST HORIZON END DATE. | |
| H. BFR08 | 373 (DATE-6) | REQUIRED | DATE FORECAST GENERATED. | |
| I. BFR11 | 324 (AN-12) | REQUIRED | PURCHASE ORDER NUMBER. | |
| (10) NOTE: | | | | |

EJECT SCREEN

- (1) ASC X12 segment name.
- (2) Sample of the segment/elements.
- (3) Description of purpose and use of the segment.

- (4) ASC X12 segment/element.
- (5) ASC X12 data element dictionary reference number.
- (6) Type and size of element (size may be a range)
 - ID = identification data.
 - AN = alphanumeric.
 - NUM = numeric.
 - DATE = date in YYYYMMDD format.
 - TIME = time in HHMM format.
 - R = real.
- (7) Indication if element is required, optional, or not used.
EJECT SCREEN
- (8) ASC X12 data element title.
- (9) Explanation of what the element contains.
- (10) Notes pertaining to use of the segment.

The ASC X12 data dictionary element reference number can be used to access the definitions and/or allowable values from the ASC X12 data dictionary if additional definitions are required.

The '@' at the end of each segment represents the segment terminator. This segment terminator is defined in the 'ISA' record. It need not be a '@'. The '@' is only used so the end of segment can be visualized.

The '*' between each element represents the element separator. The element separator is defined in the 'ISA' record. As with the segment terminator, any character may be used as a separator unless it is also contained in the data being sent.

ISA-INTERCHANGE CONTROL TRAILER SEGMENT

```

ISA*00*          *00*          *09*005070479FF  *ZZ*X0000X0  *
A   B   C           D   E           F   G           H   I
960316*1204*U*00200*960751204*0*P*\@
J           K     L M           N           O P QR
  
```

| THIS IS THE START OF THE INTERCHANGE ENVELOPE. IT IDENTIFIES THE SOURCE (CATERPILLAR) AND RECEIVER (SUPPLIER) OF THE DATA. IT IDENTIFIES SEPARATORS AND TERMINATORS TO BE USED IN THE TRANSMISSION. THIS IS DATA REQUIRED BY ASC X12 TO CONTROL THE INTERCHANGE OF DATA BETWEEN THE SENDER AND RECEIVER. ALL DATA IS IN A FIXED POSITION. (THERE WILL BE ONE 'ISA' SEGMENT FOR EACH CATERPILLAR LOCATION SENDING RELEASES.) | | | |
|---|-------------------------|--|---|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. ISA | (AN-3) REQUIRED | | DATA SEGMENT IDENTIFIER. ISA = INTERCHANGE CONTROL HEADER. |
| B. ISA01 I01 | (AN-2) REQUIRED | | AUTHORIZED INFORMATION. QUALIFIER. USE '00'. |
| C. ISA02 I02 | (AN-10) REQUIRED | | AUTHORIZED INFORMATION. USE 10 SPACES. |
| D. ISA03 I03 | (AN-2) REQUIRED | | SECURITY INFORMATION. QUALIFIER. USE '00'. |
| E. ISA04 I04 | (AN-10) REQUIRED | | SECURITY INFORMATION. USE 10 SPACES. |
| F. ISA05 I05 | (ID-2) REQUIRED | | SENDER ID QUALIFIER. 09 = DUNS NUMBER. |
| G. ISA06 I06 | (AN-15) REQUIRED | | SENDER ID. 005070479 = CATERPILLAR DUNS CODE +. FF = CATERPILLAR FACILITY CODE. (see APPENDICES) |
| H. ISA07 I05 | (ID-2) REQUIRED | | RECEIVER ID QUALIFIER. ZZ = MUTUALLY DEFINED. |
| I. ISA08 I07 | (AM-15) REQUIRED | | RECEIVER ID. CATERPILLAR ASSIGNED SUPPLIER CODE. |
| J. ISA09 I08 | (NUM-6) REQUIRED | | SUBMIT DATE. YYMMDD FORMAT. |
| K. ISA10 I09 | (NUM-4) REQUIRED | | SUBMIT TIME. HHMM FORMAT. |
| L. ISA11 I10 | (AN-1) REQUIRED | | INTERCHANGE STANDARD ID. U = USA. |
| M. ISA12 I11 | (AN-5) REQUIRED | | INTERCHANGE VERSION ID. USE "00200". |
| N. ISA13 I12 | (NUM-9) REQUIRED | | INTERCHANGE CONTROL NUMBER. UNIQUE NUMBER ASSIGNED TO CONTROL TRANSMISSION, ALSO USED IN IEA ELEMENT (IEA02). |
| O. ISA14 I13 | (AN-1) REQUIRED | | ACKNOWLEDGE REQUESTED. USE "0" = NO ACKNOWLEDGE |

| | | | | | |
|----|-------|-----|--------|----------|---|
| P. | ISA15 | I14 | (AN-1) | REQUIRED | REQUESTED. TEST INDICATOR. |
| Q. | ISA16 | I15 | (AN-1) | REQUIRED | USE "P" = PRODUCTION. SUB ELEMENT SEPERATOR. |
| R. | ISA17 | | (AN-1) | REQUIRED | ALWAYS "\". TERMINATOR. USE HEX "0D". |

GS-FUNCTIONAL GROUP HEADER SEGMENT

GS*PS*12*X0000X0*960316*1204*960751204*X*002003@

A B C D E F G H I

| IDENTIFIES THE FUNCTIONAL GROUP OF THE TRANSACTION SET BEING TRANSMITTED AS WELL AS ADDITIONAL INTERCHANGE CONTROL DATA USED IN THE TRANSMISSION. (ONE "GS" SEGMENT PER "ISA") | | | | |
|--|-------------------------|--|--|---|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | | DESCRIPTION |
| A. GS | (AN-2) REQUIRED | | | DATA SEGMENT IDENTIFIER. |
| B. GS01 479 | (ID-2) REQUIRED | | | FUNCTIONAL ID. PS = PLANNING SCHEDULES. |
| C. GS02 142 | (AN-12) REQUIRED | | | APPLICATION SENDER'S CODE. FACILITY CODE FOR SENDING. CATERPILLAR FACILITY. |
| D. GS03 124 | (AN-12) REQUIRED | | | APPLICATION RECEIVER'S CODE. CATERPILLAR ASSIGNED SUPPLIER CODE. |
| E. GS04 29 | (DATE-6) REQUIRED | | | DATA INTERCHANGE DATE. TRANSMISSION DATE IN YYMMDD FORMAT. |
| F. GS05 30 | (TIME-4) REQUIRED | | | DATA INTERCHANGE TIME. TRANSMISSION TIME IN HHMM FORMAT. |
| G. GS06 28 | (NUM-9) REQUIRED | | | DATA INTERCHANGE CONTROL. NUMBER ASSIGNED TO CONTROL TRANSMISSION, ALSO USED IN "GE" SEGMENT (GE02). |
| H. GS07 455 | (ID-2) REQUIRED | | | RESPONSIBLE AGENCY CODE. X = ASC X12 STANDARD. |
| I. GS08 480 | (ID-6) REQUIRED | | | VERSION. "002003". |

ST -TRANSACTION SET HEADER SEGMENT

ST*830*0001@

A B C

| IDENTIFIES START OF A TRANSACTION SET FOR A PURCHASE ORDER RELEASE. (THERE WILL BE ONE "ST" SEGMENT PER RELEASE). | | | | |
|--|----------------------------|----------|---|--|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION | |
| A. ST | (AN-1) | REQUIRED | DATA SEGMENT IDENTIFIER. | |
| B. ST01 143 | (ID-3) | REQUIRED | TRANSACTION SET IDENTIFIER. 830 = MATERIAL RELEASE. | |
| C. ST02 329 | (AN-9) | REQUIRED | TRANSACTION SET CONTROL NUMBER. INCREMENTED BY 1 WITH EACH SHIPMENT WITHIN THE TRANSMISSION. SAME AS IN THE FOLLOWING SE02. | |

BFR-BEGINNING FORECAST/MATERIAL RELEASE

BFR*05**1781*DL*A*960315*961210*960316***GAHB51210@

A B C D E F G H I

| CONTAINS DESCRIPTIVE DATA IDENTIFYING THE PURCHASE ORDER RELEASE. (THERE WILL BE A "BFR" SEGMENT FOR EACH RELEASE.) | | | |
|---|-------------------------|--|--|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. BFR | (AN-3) REQUIRED | | DATA SEGMENT IDENTIFIER. |
| B. BFR01 353 | (ID-2) REQUIRED | | TRANSACTION SET PURPOSE. 00 = ORIGINAL RELEASE. 02 = ADD. 04 = CHANGE. 05 = REPLACE "THIS RELEASE SUPERSEDES ALL PREVIOUS RELEASES". 06 = CONFIRMATION. |
| C. BFR03 328 | (AN-30) REQUIRED | | RELEASE NUMBER. |
| D. BFR04 675 | (ID-2) REQUIRED | | FORECAST TYPE QUALIFIER. DL = DELIVERY BASED. SH = SHIPMENT BASED. |
| E. BFR05 676 | (ID-1) REQUIRED | | FORECAST QUANTITY QUALIFIER. A = ACTUAL DISCRETE QUANTITIES. |
| F. BFR06 373 | (DATE-6) REQUIRED | | FORECAST HORIZON START DATE. |
| G. BFR07 373 | (DATE-6) REQUIRED | | FORECAST HORIZON END DATE. |
| H. BFR08 373 | (DATE-6) REQUIRED | | DATE FORECAST GENERATED. |
| I. BFR11 324 | (AN-22) REQUIRED | | PURCHASE ORDER NUMBER. |

N1-ORGANIZATION NAME SEGMENT

N1*ST*CATERPILLAR INC.*92*DT8800@
A B C D E

| CONTAINS ORGANIZATION INFORMATION PERTAINING TO THE RELEASE. (THIS SEGMENT IS OPTIONAL BUT MUST BE PRESENT IF AN N2, N3, OR N4 SEGMENT EXISTS.) | | | | |
|---|----|----------------------------|--|--|
| ASC X12 REFERENCE | | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. N1 | | (AN-2) REQUIRED | | DATA SEGMENT IDENTIFIER. |
| B. N101 | 98 | (ID-2) REQUIRED | | ORGANIZATION IDENTIFIER. PN = SHIP ASN TO FACILITY. ST = SHIP TO NAME. SU = SUPPLIER NAME. SF = SHIP FROM SUPPLIER NAME. |
| C. N102 | 93 | (AN-35) REQUIRED | | FREE-FORM ORGANIZATION NAME. |
| D. N103 | 66 | (ID-2) OPTIONAL | | IDENTIFICATION CODE QUALIFIER. 92 = CODE ASSIGNED BY BUYER. |
| E. N104 | 67 | (AN-17) OPTIONAL | | IDENTIFICATION CODE. CATERPILLAR "DELIVER TO" CODE OR CATERPILLAR ASSIGNED SUPPLIER CODE/FACILITY CODE. |
| NOTE: N1,N2,N3, N4 SEGMENTS PROVIDE SHIP TO INFORMATION WHICH APPEARS ON THE RELEASE. | | | | |

N2-ADDITIONAL NAME SEGMENT

N2*LAFAYETTE PLANT@

A B

| CONTAINS ADDITIONAL NAME INFORMATION FOR THE ORGANIZATION IDENTIFIED IN THE PREVIOUS N1 SEGMENT | | | | |
|---|----|-------------------------|----------|-------------------------------|
| ASC X12 REFERENCE | | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. N2 | | (AN-2) | REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. N201 | 93 | (AN-35) | REQUIRED | SECOND LINE NAME INFORMATION. |

N3-STREET ADDRESS SEGMENT

N3*2701 STATE ROAD 26 EAST@

A B

| SEGMENT CONTAINING STREET ADDRESS INFORMATION OF THE ORGANIZATION IDENTIFIED IN THE PREVIOUS N1 SEGMENT. | | | | |
|---|----------------------------|----------|-----------------------------|--|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION | |
| A. N3 | (AN-2) | REQUIRED | DATA SEGMENT IDENTIFIER. | |
| B. N301 166 | (AN-35) | REQUIRED | STREET ADDRESS INFORMATION. | |

N4-CITY / STATE SEGMENT

N4*LAFAYETTE*IN*47905@

A B C D

| SEGMENT CONTAINS CITY, STATE AND COUNTRY INFORMATION FOR THE ORGANIZATION IDENTIFIED IN THE PREVIOUS N1 SEGMENT. | | | | |
|--|----------------------|-----|----------------------------|--------------------------|
| | ASC X12 REFERENCE | | ELEMENT CHARACTERISTICS | DESCRIPTION |
| A. | N4 | | (AN-2) REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. | N401 | 19 | (AN-19) REQUIRED | CITY NAME. |
| C. | N402 | 156 | (AN-2) REQUIRED | STATE/PROVIDENCE CODE. |
| D. | N403 | 116 | (AN-9) OPTIONAL | POSTAL CODE. |
| E. | N404 | 26 | (AN-2) OPTIONAL | COUNTRY CODE. |

PER-COMMUNICATION CONTACT

PER*SR*J.P.JONES@

A B C

| IDENTIFIES CONTACT FOR THE ORGANIATION DEFINED IN THIS N1 LOOP. (THIS IS AN OPTIONAL SEGMENT.) | | | |
|---|----------------------------|----------|---|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. PER | (AN-3) | REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. PER01 366 | (ID-2) | REQUIRED | CONTACT QUALIFIER CODE. SR = SALES REPRESENTATIVE OR CONTACT. |
| C. PER02 93 | (AN-35) | REQUIRED | NAME. NAME OF CONTACT, OFFICE OR LOCATION. |

THE 'PER' SEGMENT IS IN THE HEADER AREA AND WILL BE ASSOCIATED WITH A 'N1' SEGMENT WITH THE 'N101' EQUAL TO 'SU'.

LIN-LINE ITEM DETAIL SEGMENT

LIN*1*BP*4W-2213*EC*01AB*VP*12345*PD*ACTUATOR*RN*00001@
 A B C D C D C D C D C D

| CONTAINS DESCRIPTIVE INFORMATION PERTAINING TO THE PART NUMBER. (THERE WILL BE ONE "LIN" SEGMENT PER RELEASE) | | | | |
|---|-------------------------|--|--|---|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | | DESCRIPTION |
| A. LIN | (AN-3) REQUIRED | | | DATA SEGMENT IDENTIFIER. |
| B. LIN01 350 | (AN-6) OPTIONAL | | | LINE ITEM NUMBER. |
| C. LIN02 235 | (ID-2) REQUIRED | | | PRODUCT/SERVICE ID QUALIFIER. BP = BUYER IDENTIFICATION NUMB. VP = VENDOR IDENTIFICATION NUMB. EC = ENGINEERING CHANGE NUMBER. PD = IDENTIFICATION DESCRIPTION. DR = DRAWING REVISION NUMBER. RN = ITEM RELEASE NUMBER. ON = CUSTOMER ORDER NUMBER. * ZZ = "SEE NOTES". |
| D. LIN03 234 | (AN-30) REQUIRED | | | PRODUCT/ID. AS PER VALUE IN PREV ELEMENT. |
| NOTE: THE LIN02 and LIN03 ELEMENTS CAN OCCUR A MAXIMUM OF 15 TIMES IN ANY ONE LIN SEGMENT. | | | | |
| Multiple LIN segments could occur in each transaction. | | | | |
| * only used when no other LIN02 are used. | | | | |

UIT-UNIT DETAIL

UIT*PC*14.50@

A B

| CONTAINS THE UNIT OF MEASURE OF THE QUANTITY BEING RELEASED. (THERE WILL BE ONE "UIT" SEGMENT PER RELEASE) | | | | |
|---|----------------------------|----------|--------------------------------------|--|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION | |
| A. UIT | (AN-3) | REQUIRED | DATA SEGMENT IDENTIFIER. | |
| B. UIT01 355 | (ID-2) | REQUIRED | UNIT OF MEASURE. (SEE APPENDICES) | |
| C. UIT02 212 | (R-4) | OPTIONAL | UNIT PRICE. | |

MEA-MEASUREMENTS SEGMENT

MEA*WT*U*1250.762*LB@

A B C D E

| IDENTIFIES THE UNIT WEIGHT. | | | |
|---|----------------------------|----------|--|
| (THIS IS AN OPTIONAL SEGMENT, ONLY USED FOR UNFORMED STEEL) | | | |
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. MEA | (AN-3) | REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. MEA01 737 | (ID-2) | REQUIRED | MEASUREMENT REFERENCE CODE. WT = WEIGHT. |
| C. MEA02 738 | (AN-1) | REQUIRED | MEASUREMENT QUALIFIER. U = WEIGHT PER UNIT. |
| D. MEA03 739 | (NUM-10) | REQUIRED | MEASUREMENT VALUE. WEIGHT AS PER MEA02. |
| E. MEA04 355 | (ID-2) | REQUIRED | UNIT OF MEASURE. (SEE APPENDICES) |

NOTE: THE MEA03 IS THE WEIGHT OF EACH ORDER UNIT
AS PER "UIT" SEGMENT

PER-COMMUNICATION CONTACT

PER*SC*P.J.KANE*TE*309-675-0000@

A B C D E

| IDENTIFIES RESPONSIBLE ANALYST AT CATERPILLAR FOR THE RELEASE. (THIS IS AN OPTIONAL SEGMENT.) | | | | |
|---|-------------------------|----------|--|---|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | | DESCRIPTION |
| A. PER | (AN-3) | REQUIRED | | DATA SEGMENT IDENTIFIER. |
| B. PER01 366 | (ID-2) | REQUIRED | | CONTACT QUALIFIER CODE. SC = SCHEDULE CONTACT. |
| C. PER02 93 | (AN-35) | REQUIRED | | NAME. NAME OF CONTACT, OFFICE OR LOCATION. |
| D. PER03 365 | (ID-2) | OPTIONAL | | COMMUNICATIONS NUMBER QUAL. TE = TELEPHONE NUMBER. |
| E. PER04 364 | (AN-21) | OPTIONAL | | TELEPHONE NUMBER. |

SDP-SHIP/DELIVERY PATTERN

SDP*Y*Z@

A B C

| CONTAINS DELIVERY INFORMATION. | | | |
|--|----------------------------|----------|---|
| (THERE WILL BE ONE "SDP" SEGMENT WITH EACH RELEASE) | | | |
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. SDP | (AN-3) | REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. SDP01 678 | (ID-1) | REQUIRED | SHIP/DELIVERY PATTERN. (SEE APPENDIX B). |
| C. SDP02 679 | (ID-1) | REQUIRED | SHIP/DELIVERY PATTERN TIME. (SEE APPENDIX B) |
| NOTE: DELIVERY PATTERN COULD VARY BY CATERPILLAR FACILITY. | | | |

FST-FORECAST SCHEDULE

FST*80*Z*D*960320*****LO*0@

A B C D E F

CONTAINS DELIVERY SCHEDULE INFORMATION.

(THERE MAY BE UP TO 104 "FST" SEGMENTS WITH EACH RELEASE)

| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | DESCRIPTION |
|----------------------|----------------------------|--|
| A. FST | (AN-3) REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. FST01 380 | (R-10) REQUIRED | QUANTITY. |
| C. FST02 680 | (ID-1) REQUIRED | FORECAST QUALIFIER. C = FIRM SCHEDULE. D = PLANNED SCHEDULE. Z = MUTUALLY DEFINED. |
| D. FST03 681 | (ID-1) REQUIRED | FORECAST TIMING QUALIFIER. D = DISCRETE. |
| E. FST04 373 | (DATE-6) REQUIRED | FORECAST DATE/PERIOD START. THE DUE DATE OR SHIP DATE. |
| F. FST08 128 | (ID-2) OPTIONAL | REFERENCE NUMBER QUALIFIER. LO = LOAD PLANNING NUMBER |
| G. FST09 127 | (AN-1) OPTIONAL | FORECAST REFERENCE NUMBER. PULL TYPE. 0 = NORMAL ACTION APPLIES. 1 = NORMAL ACTION APPLIES. 2 = DELIVER BASED ON PULL TRIGGER, ORDER PLAN QTY. 3 = DELIVER BASED ON PULL TRIGGER, PULL TRIGGER QUANTITY ONLY. ORDER PLAN MAY NOT EXIST. 4 = DELIVER BASED ON PULL TRIGGER, PULL TRIGGER QUANTITY ONLY. |

NOTE: THE FORECAST QUALIFIER IMPLIES THE DATE PROVIDED IS WHEN THE MATERIAL SHOULD BE TARGETED FOR SHIPMENT OR DELIVERY AS SPECIFIED BY THE "FORECAST TYPE QUALIFIER" IN THE IN THE 'BFR04' SEGMENT/ELEMENT.

AUTH-RESOURCE AUTHORIZATION

ATH*GS*961011***960913@

A B C D

| CONTAINS SCHEDULE GROUPING INFORMATION FOR 90 DAY PRICING OR AUTHORIZATION HORIZON DATA. | | | |
|---|----------------------------|--|---|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. ATH | (AN-3) REQUIRED | | DATA SEGMENT IDENTIFIER. |
| B. ATH01 672 | (ID-2) REQUIRED | | QUANTITY QUALIFIER. GS = GROUPED SCHEDULES FOR QUANTITY PRICING. LM = LABOR AND MATERIAL. MT = MATERIAL ONLY. |
| C. ATH02 373 | (DATE-6) REQUIRED | | DATE. THE LAST SCHEDULE DATE OF A HORIZON. |
| D. ATH05 373 | (DATE-6) REQUIRED | | DATE. THE FIRST SCHEDULE DATE OF A HORIZON. |
| NOTE: "GROUPED SCHEDULES" REPRESENT BRACKETED QUANTITIES THAT QUALIFY FOR BRACKET PRICING. THEY ARE GROUPED WITH "(" AND ")" ON THE PRINTED RELEASE. IF THE FIRST SCHEDULE OF A GROUPED SCHEDULE HAS HAD DELIVERIES MADE AGAINST IT, ZEROES WILL APPEAR IN THIS DATA ELEMENT. THERE IS NO "(" ON THE PRINTED RELEASE IN THIS CASE. | | | |

SHP-SHIPPED/RECEIVED INFORMATION

SHP*01*30*035*960316@
 A B C D E
 SHP*02*252*004*960316**960317@
 A B C D E F

| CONTAINS "RECEIPT" INFORMATION. (THIS IS AN OPTIONAL SEGMENT.) | | | |
|---|----------------------------|----------|---|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. SHP | (AN-3) | REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. SHP01 673 | (ID-2) | REQUIRED | QUANTITY QUALIFIER. 01 = DISCRETE QUANTITY. 02 = CUMULATIVE QUANTITY. |
| C. SHP02 380 | (R-10) | REQUIRED | QUANTITY. |
| D. SHP03 374 | (ID-3) | REQUIRED | DATE/TIME QUALIFIER. 004 = PURCHASE ORDER DATE. 035 = DELIVERED ON THIS DATE. |
| E. SHP04 373 | (DATE-6) | REQUIRED | DATE. IF SHP03 = 004. PURCHASE ORDER ISSUE DATE. IF SHP03 = 035. LAST RECEIPT DATE. |
| F. SHP06 373 | (DATE-6) | REQUIRED | DATE. IF SHP01 = 02. ACCUM RECEIPTS AS OF THIS DATE. |

NTE-NOTES SEGMENT

NTE*DEL*DELIVERY TO ARRIVE WITHIN 04 WORK DAYS PRIOR TO DUE DATE@
A B C

| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | DESCRIPTION |
|----------------------|----------------------------|--|
| A. NTE | (AN-3) REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. NTE01 363 | (ID-3) REQUIRED | NOTE REFERENCE CODE. DEL = DELIVERY. GEN = GENERAL. PUR = PURCHASING. |
| C. NTE02 3 | (AN-60) REQUIRED | FREE FORM NOTES. |

CTT-TRANSACTION TOTALS SEGMENT

CTT*1*284@

A B C

| CONTAINS RELEASE CONTROL DATA. | | | |
|---|----------------------------|----------|---|
| (THERE WILL BE ONE "CTT" SEGMENT WITH EACH RELEASE) | | | |
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION |
| A. CTT | (AN-3) | REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. CTT01 354 | (NUM-6) | REQUIRED | NUMBER OF LINE ITEMS. NUMBER OF LIN SEGMENTS. |
| C. CTT02 347 | (R-10) | REQUIRED | HASH TOTALS. SUM OF THE QUANTITY ELEMENTS IN THE FST01. |

SE-TRANSACTION SET TRAILER SEGMENT

SE*78*0001@

A B C

| IDENTIFIES THE END OF A TRANSACTION SET. THIS SEGMENT CONTAINS THE SEGMENT COUNTS AND INTERCHANGE CONTROL NUMBER USED TO INSURE ALL SEGMENTS HAVE BEEN CORRECTLY PROCESSED. (ONE "SE" SEGMENT PER "ST" SEGMENT PROCESSED) | | | | |
|--|----------------------------|----------|---|--|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION | |
| A. SE | (AN-2) | REQUIRED | DATA SEGMENT IDENTIFIER. | |
| B. SE01 96 | (NUM-6) | REQUIRED | NUMBER OF INCLUDED SEGMENTS. ACCUMULATED TOTAL NUMBER OF SEGMENTS FROM PREVIOUS "ST" SEGMENT, INCLUDING THE "ST" AND "SE" SEGMENTS. | |
| C. SE02 329 | (AN-9) | REQUIRED | TRANSACTION SET CONTROL NUMBER SAME CONTROL NUMBER AS THE ONE USED IN THE PREVIOUS "ST" SEGMENT (ST02). | |

GE-FUNCTIONAL GROUP TRAILER SEGMENT

GE*1*960751204@

A B C

| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | DESCRIPTION |
|----------------------|----------------------------|---|
| A. GE | (AN-2) REQUIRED | DATA SEGMENT IDENTIFIER. |
| B. GE01 97 | (NUM-6) REQUIRED | NUMBER OF INCLUDED TRANSACTION. ACCUMULATED TOTAL NUMBER OF "ST" SEGMENTS INCLUDED IN THIS FUNCTIONAL GROUP. |
| C. GE02 28 | (NUM-9) REQUIRED | INTERCHANGE CONTROL NUMBER. SAME CONTROL NUMBER USED IN THE PREVIOUS "GS" SEGMENT (GS06). |

IEA-INTERCHANGE CONTROL TRAILER SEGMENT

IEA*1*960751204@

A B C

| IDENTIFIES THE END OF THE INTERCHANGE FOR A GIVEN SENDING FACILITY. THIS SEGMENT CONTAINS THE COUNT OF INCLUDED FUNCTIONAL GROUPS AND THE INTERCHANGE CONTROL NUMBER USED TO INSURE THE TOTAL INTERCHANGE HAS BEEN CORRECTLY PROCESSED. (ONE "IEA" SEGMENT PER "ISA" SEGMENT PROCESSED) | | | | |
|---|-------------------------|----------|---|--|
| ASC X12 REFERENCE | ELEMENT CHARACTERISTICS | | DESCRIPTION | |
| A. IEA | (AN-3) | REQUIRED | DATA SEGMENT IDENTIFIER. | |
| B. IEA01 710 | (NUM-1) | REQUIRED | NUMBER OF INCLUDED GROUPS. ACCUMULATED TOTAL NUMBER OF "GS" SEGMENTS INCLUDED IN THIS INTERCHANGE (SINCE THE PREVIOUS "ISA" SEGMENT). | |
| C. IEA02 709 | (NUM-9) | REQUIRED | INTERCHANGE CONTROL NUMBER. SAME CONTROL NUMBER AS USED IN THE PREVIOUS "ISA" SEGMENT (ISA13). | |

TRANSACTION SAMPLE DATA - COMMUNICATION

SAMPLE FOR 830 TRANSACTION -- COMMUNICATION SESSION

(ONE ENVELOPE - TWO RELEASES)

COLUMN 1....1....2....2....3....3....4....4....5....5....6....6....7
123456789012345678901234567890123456789012345678901234567890234567890
-----+-----+-----+-----+-----+-----+-----+
ISA*00* *00* *09*005070479FF *ZZ*X0000X0 *
960316*1204*U*00200*960751204*0***@

GS*PS*12*X0000X0*960316*1204*960751204*X*002003@

ST*830*0001@

BFR*05**1781*DL*A*960315*961210*960316***GAHB51210@

N1*PN*LAFAYETTE*92*88@

N1*SU*ACME INC.*92*X0000X0@

PER*SR*J.P.JONES@

N1*ST*CATERPILLAR INC.*92*DT88010@

N2*LAFAYETTE PLANT@

N3*2701 STATE ROAD 26 EAST@

N4*LAFAYETTE*IN*47905@

LIN*1*BP*4W-2213*EC*01AB*VP*12345*PD*ACTUATOR*RN*00001@

UIT*PC*14.50@

PER*SC*P.J.KANE*TE*309-675-0000@

SDP*Y*Z@

FST*11*C*D*960320***LO*0@

FST*12*C*D*960415***LO*0@

FST*12*C*D*960614***LO*0@

FST*12*C*D*960621***LO*0@

FST*14*C*D*960703***LO*0@

FST*60*C*D*960815***LO*0@

FST*83*D*D*960913***LO*0@

FST*80*D*D*961011***LO*0@

ATH*GS*960320***000000@

ATH*GS*960815***960530@
ATH*GS*961011***960913@
ATH*LM*960913***960913@
ATH*MT*961011***961011@
SHP*01*30*035*960316@
SHP*02*252*004*960316**960317@
NTE*DEL*DELIVERY TO ARRIVE WITHIN 04 WORK DAYS PRIOR TO DUE DATE@
NTE*GEN*FABRICATION AUTHORIZATION 7 WEEKS.@
CTT*1*284@
SE*31*0001@
ST*830*0002@
BFR*05**1781*DL*A*960315*961210*960316***GAHB57660@
N1*PN*LAFAYETTE*92*88@
N1*SU*ACME INC.*92*X0000X0@
N1*ST*CATERPILLAR INC.*92*DT88010@
N2*LAFAYETTE PLANT@
N3*2701 STATE ROAD 26 EAST@
N4*LAFAYETTE*IN*47905@
LIN*1*BP*7B-6322*EC*04*PD*STARTER*DR*BA*RN*00001@
UIT*PC@
PER*SC*L.A.MAYNARD@
SDP*Y*Z@
FST*10*Z*D*960425***LO*0@
FST*18*Z*D*960509***LO*0@
FST*22*Z*D*960530***LO*0@
FST*22*Z*D*960621***LO*0@
FST*22*Z*D*960628***LO*0@
FST*24*Z*D*960703***LO*0@
FST*29*Z*D*960710***LO*0@
FST*100*Z*D*960815***LO*0@

FST*123*Z*D*960913****LO*1@

SHP*01*15*035*960316@

SHP*02*252*004*960316**960317@

|

NTE*DEL*DELIVERY TO ARRIVE WITHIN 04 WORK DAYS PRIOR TO DUE DATE@

CTT*1*370@

SE*26*0002@

GE*2*960751204@

IEA*1*960751204@

NOTE: @ = TERMINATION CHARACTER (HEX "0D")

TRANSACTION SAMPLE DATA-UNFORMED STEEL S

SAMPLE FOR 830 TRANSACTION -- UNFORMED STEEL SUPPLIER

| COLUMN | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|------|---|-----------------|---|-------------|---|
| 1234567890123456789012345678901234567890123456789012345678901234567890 | | | | | | | |
| -----+-----+-----+-----+-----+-----+-----+-----+ | | | | | | | |
| ISA*00* | | *00* | | *09*00507047988 | | *ZZ*X0000X0 | * |

961014*1639*U*00200*962881639*0*P*\@

GS*PS*88*X0000X0*961014*1639*962881639*X*002003@

ST*830*0001@

BFR*05**1781*DL*A*960509*961011*960403***GAHB51211@

N1*PN*LAFAYETTE*92*88@

N1*SU*ACME INC.*92*X0000X0@

N1*ST*CATERPILLAR INC.*92*DT88010@

N2*LAFAYETTE PLANT@

N3*2701 STATE ROAD 26 EAST@

N4*LAFAYETTE*IN*47905@

LIN*1*BP*0213342213*EC*03*PD*PLATE*RN*00001@

UIT*PC@

MEA*WT*U*3924.120*LB@

PER*SC*P.J.KANE@

SDP*Y*Z@

FST*11*C*D*960509***LO*0@

FST*12*C*D*960530***LO*1@

FST*12*C*D*960614***LO*0@

ATH*LM*960614***960614@

SHP*01*23*035*960316@

SHP*02*252*004*960316**960317@

NTE*DEL*DELIVERY TO ARRIVE WITHIN 04 WORK DAYS PRIOR TO DUE DATE@

NTE*GEN*FABRICATION AUTHORIZATION 7 WEEKS.@

CTT*1*35@

SE*23*0001@

GE*1*962881639@

IEA*1*962881639@

NOTE: @ = TERMINATION CHARACTER (HEX "0D")

APPENDIX B - SHIP/DELIVERY PATTERN TABLE

678 SHIP/DELIVERY PATTERN

THIS CODE SPECIFIES THE DAYS FOR SHIPMENT OR DELIVERY.

| CODE | DEFINITION |
|------|---|
| ---- | ----- |
| A- | MONDAY THROUGH FRIDAY |
| B- | MONDAY THROUGH SATURDAY |
| C- | MONDAY THROUGH SUNDAY |
| D- | MONDAY |
| E- | TUESDAY |
| F- | WEDNESDAY |
| G- | THURSDAY |
| H- | FRIDAY |
| J- | SATURDAY |
| K- | SUNDAY |
| M- | IMMEDIATELY |
| Y- | NONE (CAN BE USED TO CANCEL OR OVERRIDE PREVIOUS PATTERN OR WHEN DEFINING ONLY TIME OF DAY.) |
| Z- | MUTUALLY DEFINED |

679 SHIP/DELIVERY PATTERN TIME

THIS CODE SPECIFIES THE DAYS FOR SHIPMENT OR DELIVERY.

| CODE | DEFINITION |
|------|---|
| ---- | ----- |
| -A | 1ST SHIFT (NORMAL WORKING HOURS) |
| -B | 2ND SHIFT |
| -C | 3RD SHIFT |
| -D | A.M. |
| -E | P.M. |
| -F | AS DIRECTED |
| -G | ANY SHIFT |
| -Y | NONE (CAN BE USED TO CANCEL OR OVERRIDE PREVIOUS PATTERN.) |
| -Z | MUTUALLY DEFINED |