

Caterpillar Inc.
02/11/2010

810 Electronic Invoice

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PREFACE

This writing is intended to give details on how to construct an electronic invoice (Transaction Set 810) to satisfy Caterpillar Inc. This document is a description of Caterpillar's Electronic Data Interchange (EDI) effort along with an overview of the invoicing standards being used by Caterpillar Inc.

For the invoice transaction set 810, this transaction is used to submit supplier invoices to Caterpillar Accounts Payable for recording as a liability and subsequent payment. Compliance with this documentation will enable Caterpillar Inc. to process your invoices in a timely, accurate manner and will reduce the risk of having your Invoice detail returned and the payment delayed.

Caterpillar Inc. is committed to supporting and using the AIAG/ASC X12 national standards. However, the standards are broad in scope and flexible in methods of implementing. These are the Caterpillar Inc. specific requirements for the creation of a Supplier Invoice.

Any questions or concerns regarding the Caterpillar EDI Invoice (AIAG Transaction Set 810) into Accounts Payable may be directed to:

Caterpillar Inc.
Accounts Payable Support
Attn: Joe Ringenberg - LD251
330 S.W. Adams Street
Peoria, IL 61602

(309) 675-1324

Caterpillar Inc.
Accounts Payable Support
Attn: Gary Campbell - LD251
330 S.W. Adams Street
Peoria, IL 61602

(309) 675-1577

Any questions or concerns regarding the Caterpillar Inc. EDI Mailbox System (CMS) or the communication network may be directed to:

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

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

EXPLANATION OF DATA SEGMENT LAYOUTS

Shown below is a segment sample from the Invoice -- Transaction set 810. The fields are numbered with an explanation below. This should assist you in reading or programming the outgoing 810 transaction.

(1)
BEGINNING SEGMENT (INVOICE)

(2)
BIG*940202*123456789012**AAB 12345***CA@
A B C D E

(3) CONTAINS DESCRIPTIVE DATA IDENTIFYING THE INVOICE. (THERE WILL BE ONE "BIG" SEGMENT PER INVOICE)				
	AIAG REFERENCE		FIELD CHARACTERISTICS	DESCRIPTION
A.	BIG		(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER
B.	BIG01	(4) 245	(5) (6) (DT-6) REQUIRED (7) (9)	(8) INVOICE DATE FORMAT = YYYYDD
C.	BIG02	076	(AN-12) REQUIRED	SUPPLIER INVOICE NUMBER
D.	BIG04	324	(AN-9) OPTIONAL	PURCHASE ORDER NUMBER CATERPILLAR ASSIGNED PURCHASE ORDER NUMBER. THIS SEGMENT IS USED WHEN THE PURCHASE ORDER NUMBER APPLIES TO ALL ITEMS ON THE INVOICE. IF NOT, PURCHASE ORDER NUMBER SHOULD BE IN IT1 SEGMENT.
E.	BIG07	640	(ID-2) OPTIONAL	INVOICE TYPE CODE CA = CASH INVOICE CR = CREDIT MEMO
(10) INDICATES THE BEGINNING OF AN INVOICE TRANSACTION SET				

- (1) ASC X12 segment name
- (2) Layout of the segment fields
- (3) Description of purpose and use of the segment
- (4) AIAG data element reference number
- (5) ASC X12 data dictionary reference number
- (6) Type and size of field (size may be a range)
 - ID = identification data
 - AN = alphanumeric data
 - NUM = numeric data
 - DT = date in YYYYMMDD format
 - R = real data
 - N2 = numeric with 2 position decimal implied
 - N0 = numeric with 0 position decimal implied
 - TIME = time in HHMM format
- (7) Indication if segment element is required or optional
- (8) ASC X12 data element title
- (9) Explanation of what the field contains
- (10) Notes pertaining to use of the segment

We have indicated the field lengths (6) as used by Caterpillar. You may also wish to refer to the ASC X12 and AIAG standards for further clarification.

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

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

The '*' between each field 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.

TRANSACTION SEQUENCE WITH LEVELS

Shown below are the segments used by the INVOICE Transaction Set(810)

LEVEL	SEGMENT TYPE	DATA CONTAINED IN SEGMENT
HEADER	ISA	INTERCHANGE CONTROL HEADER SEGMENT
	GS	FUNCTIONAL GROUP HEADER SEGMENT
	ST	TRANSACTION SET HEADER SEGMENT
	BIG	BEGINNING SEGMENT FOR INVOICE
	NTE	NOTES/SPECIAL INSTRUCTIONS SEGMENT
	CUR	CURRENCY SEGMENT
	N1	SUPLPLIER SHIP TO NAME/LOCATION
	N3	ADDRESS INFORMATION
	N4	GEOGRAPHIC LOCATION
	N1	SELLING PARTY SUPPLIER CODE
	N1	SHIP FROM SUPPLIER CODE
	REF	PACKING LIST REFERENCE NUMBERS
	ITD	TERMS OF SALE/DEFERRED TERMS OF SALE
DTM	MATERIAL SHIP DATE	

DETAIL	IT1	BASELINE ITEM DATA - INVOICE
	IT3	ADDITIONAL ITEM DATA - INVENTORY QUANTITY
	PID	ITEM/PRODUCT DESCRIPTION
	PWK	PAPERWORK (UNIQUE ACCOUNTING DISTRIBUTION)
	REF	PACKING LIST REFERENCE NUMBER
	ITA	ADDITIONAL CHARGES / ALLOWANCE SEGMENT

SUMMARY	TDS	TOTAL INVOICE AMOUNT SEGMENT
	ITA	ADDITIONAL CHARGES / ALLOWANCE (TAX ONLY)
	CTT	TRANSACTION TOTALS SEGMENT
	SE	TRANSACTION SET TRAILER (END) SEGMENT

ISA-INTERCHANGE CONTROL HEADER SEGMENT

ISA*00* *00* *ZZ*X0000X0 *09*005070479FF *
 A B C D E F G H I J

940202*1020*U*00200*123456789*0*P*\@
 K L M N O P Q RS

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 THE INTERCHANGE OF DATA BETWEEN THE SENDER AND RECEIVER. ALL DATA IS IN A FIXED POSITION.

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A. ISA	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER. ISA = INTERCHANGE CONTROL HEADER.
B. ISA	(AN-1) REQUIRED	DATA ELEMENT SEPERATOR * = FOR THESE CATERPILLAR RECORDS
C. ISA01 I01	(ID-2) REQUIRED	AUTH. INFO QUALIFIER. ALWAYS "00".
D. ISA02 I02	(AN-10) REQUIRED	AUTH. INFORMATION. ALWAYS SPACES.
E. ISA03 I03	(ID-2) REQUIRED	SECURITY INFO QUALIFIER. ALWAYS "00".
F. ISA04 I04	(AN-10) REQUIRED	SECURITY INFORMATION. ALWAYS SPACES.
G. ISA05 I05	(ID-2) REQUIRED	RECEIVER ID QUALIFIER "ZZ" = MUTUALLY DEFINED SUFFIX
H. ISA06 I06	(ID-15) REQUIRED	SENDER ID. CATERPILLAR ASSIGNED SUPPLIER CODE FOUND ON YOUR PURCHASE ORDER.
I. ISA07 I05	(ID-2) REQUIRED	RECEIVER ID QUALIFIER. "09" = DUNS NUMBER
J. ISA08 I07	(ID-15) REQUIRED	RECEIVER ID. 005070479 = CATERPILLAR DUNS CODE + FF = CATERPILLAR MAILBOX CODE 94 = TEST 19 = PRODUCTION
K. ISA09 I08	(DATE-6) REQUIRED	SUBMIT DATE. YYMMDD FORMAT.
L. ISA10 I09	(TIME-4) REQUIRED	SUBMIT TIME. HHMM FORMAT.
M. ISA11 I10	(ID-1) REQUIRED	INTERCHANGE STANDARD. "U" FOR ASC X12.
N. ISA12 I11	(ID-5) REQUIRED	INTERCHANGE VERSION. ALWAYS "00200".
O. ISA13 I12	(NUM-9) REQUIRED	INTERCHANGE CONTROL NUMBER. UNIQUE NUMBER ASSIGNED TO CONTROL TRANSMISSION,

P.	ISA14	I13	(ID-1)	REQUIRED	ALSO USED IN IEA02 SEGMENT. ACKNOWLEDGEMENT REQUESTED ALWAYS "0" = NO ACKNOWLEDGMENT REQUESTED.
Q.	ISA15	I14	(ID-1)	REQUIRED	INDICATOR. "P" = PRODUCTION. "T" = TEST
R.	ISA16	I15	(AN-1)	REQUIRED	SUB ELEMENT SEPERATOR ALWAYS "\".
S.	ISA17		(AN-1)	REQUIRED	SEGMENT TERMINATOR. ALWAYS HEX '0D'.

GS -FUNCTIONAL GROUP HEADER SEGMENT

GS*IN*X0000X0*19*940202*1418*123456789*X*003030@
 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")				
AIAG REFERENCE		FIELD CHARACTERISTICS		DESCRIPTION
A. GS		(AN-2) REQUIRED		DATA SEGMENT IDENTIFIER.
B. GS01	479	(ID-2) REQUIRED		FUNCTIONAL ID. IN = INVOICE
C. GS02	142	(AN-12) REQUIRED		APPLICATION SENDER'S CODE. CATERPILLAR ASSIGNED SUPPLIER CODE.
D. GS03	124	(AN-12) REQUIRED		APPLICATION RECEIVER'S CODE. CATERPILLAR ASSIGNED FACILITY CODE. 19 = PRODUCTION FACILITY CODE 94 = TEST FACILITY 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	(AN-6) REQUIRED		VERSION "003030"

ST -TRANSACTION SET HEADER SEGMENT

ST*810*0001@

A B C

IDENTIFIES START OF A TRANSACTION SET FOR AN APPLICATION ADVICE. (THERE WILL BE ONE "ST" SEGMENT PER APPLICATION)				
AIAG REFERENCE		FIELD CHARACTERISTICS		DESCRIPTION
A. ST		(AN-2)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. ST01	143	(ID-3)	REQUIRED	TRANSACTION SET IDENTIFIER. 810 = INVOICE
C. ST02	329	(AN-9)	REQUIRED	TRANSACTION SET CONTROL NUMBER. INCREMENTED BY 1 WITH EACH INVOICE WITHIN THE SUPPLIER TRANSMISSION. SAME AS IN THE FOLLOWING SE02.

BIG-BEGINNING SEGMENT (INVOICE)

BIG*940202*123456789012**AAB 12345@

A B C D

CONTAINS DESCRIPTIVE DATA IDENTIFYING THE INVOICE.
 (THERE WILL BE ONE "BIG" SEGMENT PER INVOICE)

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A. BIG	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER.
B. BIG01 245	(DATE-6) REQUIRED	SUPPLIER INVOICE DATE FORMAT = YYMMDD
C. BIG02 076	(AN-22) REQUIRED	SUPPLIER INVOICE NUMBER CATERPILLAR WILL ONLY EXTRACT FIRST 12 POSITIONS.
D. BIG04 324	(AN-22) OPTIONAL	PURCHASE ORDER NUMBER CATERPILLAR ASSIGNED PURCHASE ORDER NUMBER. TO BE USED WHEN ALL ITEMS ON THE TRANSACTION ARE FOR THE SAME PO NUMBER. CATERPILLAR PO NUMBER IS NINE (9) POSITIONS.

CUR-CURRENCY

CUR*PE*USD@

A B C

SPECIFIES THE CURRENCY (DOLLARS, POUNDS, FRANCS, ETC,) USED IN A TRANSACTION FOR WHICH THE INVOICES IS TO BE PAID. THIS SEGMENT IS NOT NECESSARY WHEN THE INVOICE AMOUNT IS IN U.S. DOLLARS.

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A. CUR	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER.
B. CUR01 098	(ID-3) REQUIRED	ENTITY IDENTIFIER CODE PE = PAYEE RE = PARTY TO RECEIVE COMMERCIAL INVOICE REMITTANCE. BY = BUYING PARTY (PURCHASER)
C. CUR02 100	(AN-3) REQUIRED	CURRENCY CODE NON-US CURRENCY INVOICES ONLY

*** SEE APPENDIX FOR NON-US CURRENCY CODES ***

REF-REFERENCE NUMBERS

REF*PK*12345678901234@
 A B C
 REF*IV*12345678901234@
 A B C
 REF*BM*12345678901234@
 A B C

SPECIFIES IDENTIFYING NUMBERS RELATED TO INVOICE DETAIL. ONLY ONE "REF" SEGMENT IS REQUIRED. THE VALUE IN "REF02" WILL BE USED AS THE SUPPLIER SHIPPING REFERENCE NUMBER ON THE INVOICE AND REMITTANCE ADVICE.			
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
A. REF	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. REF01 128	(ID-2)	REQUIRED	REFERENCE NUMBER QUALIFIER. PK = PACKING LIST. IV = INVOICE NUMBER. BM = BILL OF LADING NUMBER.
C. REF02 127	(AN-30)	REQUIRED	REFERENCE NUMBER SUPPLIERS SHIPPING REFERENCE NUMBER WHICH TIES THE RECEIPT TO THE INVOICE.

N1 - ORGANIZATION NAME SEGMENT

N1*SE**92*X0000X0@
 N1*VN**92*X0000X0@
 N1*SU**92*X0000X0@
 A B D E
 N1*Sf*SHIPMENT LOCATION@
 N1*ST*CATERPILLAR@
 A B C

IDENTIFIES PARTY BY TYPE OF ORGANIZATION, CODE QUALIFIER, AND CODE.				
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION	
A. N1	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.	
B. N101 098	(ID-2)	REQUIRED	ENTITY IDENTIFIER CODE. SE = SELLING PARTY. VN = VENDOR. SU = SUPPLIER. SF = SHIP FROM. ST = SHIP TO.	
C. N102 093	(AN-35)	REQUIRED	NAME. NAME OF COMPANY RECEIVING MATERIAL. WILL MOST LIKELY ALWAYS BE CATERPILLAR.	
D. N103 066	(ID-2)	REQUIRED	IDENTIFICATION CODE QUALIFIER 92 = ASSIGNED BY BUYER OR AGENT	
D. N104 067	(AN-17)	REQUIRED	IDENTIFICATION CODE CATERPILLAR ASSIGNED SUPPLIER CODE WHICH APPEARS ON YOUR PURCHASE ORDER.	
## IF ENTITY IDENTIFIER CODE (N101) IS EQUAL TO "ST" AND MATERIAL IS SHIPPED TO OTHER THAN A CATERPILLAR LOCATION THEN AN 'N2', 'N3', AND 'N4' SEGMENT IS REQUIRED.				
## IF ENTITY IDENTIFIER CODE (N101) IS EQUAL TO "SF", THEN A 'N4' SEGMENT IS REQUIRED. ENTITY IDENTIFIER CODE 'SF' IS USED PRIMARILY BY SUPPLIERS WHO SHIP TO A PARTY OTHER THAN CATERPILLAR INC AND BILLS FOR THE FREIGHT INCURRED ON THE SHIPMENT.				

N2-ADDITIONAL NAME INFORMATION

N2*FACILITY NAME@

A B

IDENTIFIES SECONDARY NAME OF PARTY WHERE MATERIAL IS BEING SHIPPED. TO BE USED WHEN "N101" IDENTIFIER CODE IS = "ST" AND MATERIAL IS BEING SHIPPED TO CATERPILLAR.			
AIAG	FIELD		
REFERENCE	CHARACTERISTICS		DESCRIPTION
A. N2	(AN-3) REQUIRED		DATA SEGMENT IDENTIFIER.
B. N201 093	(AN-35) REQUIRED		ADDITIONAL NAME. NAME OF CATERPILLAR FACILITY WHERE MATERIAL IS BEING SHIPPED

N3-ADDRESS INFORMATION

N3*STREET-ADDRESS@

A B

IDENTIFIES STREET, BUILDING OR OTHER ADDRESS INFORMATION. TO BE USED WHEN "N101" IDENTIFIER CODE IS = "ST" AND MATERIAL IS BEING SHIPPED TO OTHER THAN CATERPILLAR.				
	AIAG		FIELD	
	REFERENCE		CHARACTERISTICS	DESCRIPTION
A.	N3	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B.	N301 166	(AN-35)	REQUIRED	ADDRESS INFORMATION ADDRESS INFORMATION OF THE PARTY TO RECEIVE MATERIAL IF OTHER THAN CATERPILLAR.

N4-GEOGRAPHIC LOCATION

N4*PEORIA*IL*61630@
 A B C D

IDENTIFIES GEOGRAPHIC LOCATION OF THE PARTY TO RECEIVE MATERIAL. TO BE USED WHEN "N101" IDENTIFIER CODE IS = "ST" AND MATERIAL IS BEING SHIPPED TO OTHER THAN CATERPILLAR.				
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION	
A. N4	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.	
B. N401 019	(AN-30)	REQUIRED	CITY NAME CITY NAME OF PARTY TO RECEIVE MATERIAL.	
C. N402 156	(AN02)	REQUIRED	STATE OR PROVINCE CODE STANDARD STATE OR PROVINCIAL CODE OF PARTY TO RECEIVE MATERIAL.	
D. N403 116	(AN9)	REQUIRED	POSTAL CODE INTERNATIONALLY USED POSTAL CODE OF PARTY TO RECEIVE MATERIAL.	

ITD-TERMS OF SALE

ITD*08*ZZ*1**365@
 A B C D E

IDENTIFIES APPLICABLE EARLY PAYMENT DISCOUNT BEING OFFERED BY THE SUPPLIER ON THE INVOICE.			
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
A. ITD	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. ITD01 336	(ID-2)	REQUIRED	TERMS TYPE CODE 08 = BASIC DISCOUNT OFFERED ** ONLY ALLOWABLE CODE
C. ITD02 333	(ID-2)	REQUIRED	TERMS BASIS DATE CODE ZZ = MUTUALLY DEFINED
D. ITD03 338	(R-6)	REQUIRED	TERMS DISCOUNT PERCENT. APPLICABLE DISCOUNT PERCENT OFFERED FOR THE INVOICE. NET = 0 1/2% = .5 1% = 1 ETC.
E. ITD05 351	(NO-3)	REQUIRED	TERMS DISCOUNT DAYS DUE CONDITIONAL ELEMENT REQUIRED BUT NOT USED BY CATERPILLAR.

DTM DATE/TIME REFERENCE

DTM*011*940301@

A B C

IDENTIFIES SPECIFIC PERTINENT DATES AND TIMES.

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A. DTM	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER.
B. DTM01 374	(ID-3) REQUIRED	DATE/TIME QUALIFIER 011 = SHIPPED
C. DTM02 373	(DT-6) REQUIRED	DATE DATE MATERIAL WAS SHIPPED FORMAT = YYMMDD

IT1 BASELINE ITEM DATA (INVOICE)

IT1*1*1*EA*100.00**PO*AAAX99999*BP*1234567890*RN*123@
 A B C D E F G H I J K

SPECIFIES THE BASIC AND MOST FREQUENTLY USED LINE ITEM DATA FOR THE INVOICE AND RELATED TRANSACTIONS.				
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION	
A. IT1	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.	
B. IT101 350	(AN-11)	REQUIRED	ASSIGNED IDENTIFICATION PURCHASE ORDER LINE NUMBER ASSIGNED TO ITEM - 3 POSITION (NOT PART NUMBER)	
C. IT102 358	(R-10)	REQUIRED	QUANTITY INVOICED	
D. IT103 355	(ID-2)	REQUIRED	UNIT OR BASIS FOR MEASUREMENT CODE. QUANTITY BILLED U/M SEE APPENDIX	
E. IT104 212	(R-14)	REQUIRED	UNIT PRICE. IF ANY TRADE DISCOUNTS ARE APPLICABLE, THE UNIT PRICE SHOULD REFLECT THE BASE PRICE LESS TRADE DISCOUNT	
F. IT106 235	(ID-2)	REQUIRED	PRODUCT/SERVICE ID QUALIFIER ON = CUSTOMER ORDER NUMBER PO = PURCHASE ORDER NUMBER BP = BUYER'S PART NUMBER RN = RELEASE NUMBER ### VA = VENDOR STYLE NUMBER ### VU = VENDORS BASIC UNIT NUMBER	
### NOT TO BE USED UNLESS INSTRUCTED BY CATERPILLAR ACCOUNTS PAYABLE PERSONNEL				

IT1 BASELINE ITEM DATA (INVOICE)

IT1*1*1*EA*100.00**PO*AAAX99999*BP*1234567890*RN*123@
 A B C D E F G H I J K

SPECIFIES THE BASIC AND MOST FREQUENTLY USED LINE ITEM DATA FOR THE INVOICE AND RELATED TRANSACTIONS.			
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
G. IT107 234	(AN-30) REQUIRED		PRODUCT SERVICE ID THE CATERPILLAR PURCHASE ORDER, CATERPILLAR PART NUMBER, OR CATERPILLAR RELEASE NUMBER WHICH CORRESPONDS TO THE ID QUALIFIER USED IN THE PREVIOUS ELEMENT.
### THE CATERPILLAR PURCHASE ORDER NUMBER AND PRECEDING ID QUALIFIERS ('PO' OR 'ON') SHOULD ONLY BE USED IF THERE IS MORE THAN ONE PURCHASE ORDER REFERENCED ON THE INVOICE. OTHERWISE THE PURCHASE ORDER NUMBER SHOULD BE PLACED IN THE BIG SEGMENT - ELEMENT 04.			
H. IT108 235	(ID-2) REQUIRED		PRODUCT SERVICE ID QUALIFIER SAME AS F. IT106 ELEMENT
I. IT109 234	(AN-30) REQUIRED		PRODUCT SERVICE ID QUALIFIER SAME AS G. IT107 ELEMENT
J. IT110 235	(ID-2) REQUIRED		PRODUCT SERVICE ID QUALIFIER SAME AS F. IT106 ELEMENT
K. IT111 234	(AN-30) REQUIRED		PRODUCT SERVICE ID QUALIFIER SAME AS G. IT107 ELEMENT

IT3 ADDITIONAL ITEM DATA

IT3*1*PC@
A B C

SPECIFIES ADDITIONAL ITEM DETAILS RELATING TO VARIATIONS
BETWEEN ORDERED AND INVOICED QUANTITIES.

AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
A. IT3	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. IT301 382	(R-10)	REQUIRED	NUMBER OF UNITS SHIPPED TYPICALLY USED TO IDENTIFY INVENTORY QUANTITY WHEN THIS QUANTITY IS DIFFERENT THAN THE BILLING QUANTITY.
C. IT302 355	(ID-2)	REQUIRED	UNIT OR BASIS FOR MEASUREMENT ALWAYS USE 'PC'

THIS SEGMENT IS NOT FREQUENTLY USED BY CATERPILLAR INC..
THE PURPOSE OF THE ELEMENT IS TO IDENTIFY QUANTITIES IF
THE BILLING U/M IS DIFFERENT THAN THE INVENTORY U/M.

PID- PRODUCT / ITEM DESCRIPTION

PID*F****ITEM DESCRIPTION@
A B C

DESCRIBES AN ITEM IN EITHER AN INDUSTRY STANDARD
OR FREE FORM FORMAT.

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A. PID	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER.
B. PID01 349	(ID-1) REQUIRED	ITEM DESCRIPTION TYPE CATERPILLAR WILL ONLY ACCEPT F = FREE FORM.
C. PID05 352	(AN-80) REQUIRED	DESCRIPTION CATERPILLAR CAN ONLY PROCESS THE FIRST 40 POSITIONS OF THE ITEM DESCRIPTION.

*** THIS SEGMENT SHOULD BE MADE AVAILABLE ON EACH AND EVERY
ITEM BILLED ON THE INVOICE. THIS SEGMENT IS MOST CRITICAL
WHEN THERE IS NOT A PART NUMBER PROVIDED ON THE PURCHASE
ORDER FOR THE ITEM BEING BILLED.

PWK- PAPERWORK

PWK*AD*IE***ZZ*FACC*FF@
 PWK*AD*IE***ZZ*CNTRL*A9999@
 PWK*AD*IE***ZZ*SUBA*123@
 PWK*AD*IE***ZZ*SSUB*12@
 PWK*AD*IE***ZZ*EXPE*1234@
 PWK*AD*IE***ZZ*ORDE*12345@
 PWK*AD*IE***ZZ*MISC*123@
 A B C D E F

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
PROVIDES ACCOUNTING DISTRIBUTION INFORMATION FOR INVOICE ACTIVITY AGAINST 'AS RELEASED' PURCHASE ORDERS.		
THIS SEGMENT IS NOT FREQUENTLY USED BY CATERPILLAR INC.. USE OF THIS SEGMENT SHOULD BE AUTHORIZED BY PERSONNEL WITHIN THE ACCOUNTS AND FREIGHT PAYABLES SECTION.		
A. PWK	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER.
B. PWK01 755	(ID-2) REQUIRED	REPORT TYPE CODE AD = DISTRIBUTOR INVENTORY REPORT.
C. PWK02 756	(ID-2) REQUIRED	REPORT TRANSMISSION CODE IE = ELECTRONICALLY WITH INVOICE.
D. PWK05 066	(ID-2) REQUIRED	IDENTIFICATION CODE QUALIFIER ZZ = MUTUALLY DEFINED
E. PWK06 067	(ID-17) REQUIRED	IDENTIFICATION CODE FACC = FACILITY CODE CNTRL = DEPARTMENTAL ACCOUNT SUBA = DIVISION ACCOUNT SSUB = SECTION ACCOUNT EXPE = EXPENSE ACCOUNT CODE ORDE = ORDER NUMBER MISC = MISCELLANEOUS ACCOUNT
F. PWK07 352	(AN-80) REQUIRED	DESCRIPTION FF = FACILITY CODE A9999 = DEPARTMENTAL ACCOUNT 123 = DIVISION ACCOUNT 12 = SECTION ACCOUNT 1234 = EXPENSE ACCOUNT CODE 12345 = ORDER NUMBER 123 = MISCELLANEOUS ACCOUNT

REF-REFERENCE NUMBER

REF*PK*12345678901234@
A B C

SPECIFIES IDENTIFYING NUMBERS RELATED TO INVOICE DETAIL. ONLY ONE "REF" SEGMENT IS REQUIRED.			
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
A. REF	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. REF01 128	(ID-2)	REQUIRED	REFERENCE NUMBER QUALIFIER. PK = PACKING LIST.
C. REF02 127	(AN-30)	REQUIRED	REFERENCE NUMBER. PACKING LIST NUMBER.

ITA-ALLOWANCE/CHARGE INFORMATION

ITA*C*AX*S0050*06**100.00****1234567890*EA**DESCRIPTION@
 A B C D E F G H I

SPECIFIES ALLOWANCE OR CHARGES BEING BILLED ON THE INVOICE			
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
A. ITA	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. ITA01 248	(ID-1)	REQUIRED	ALLOWANCE OR CHARGE INDICATOR C = CHARGE A = ALLOWANCE
### ALLOWANCES ARE NOT USED FREQUENTLY. PLEASE CONTACT ACCOUNTS PAYABLE PRIOR TO PROCESSING AND TRANSMITTING THIS INDICATOR.			
C. ITA02 559	(ID-2)	REQUIRED	AGENCY QUALIFIER CODE. AX = ANSI ACCREDITED STANDARDS COMMITTEE, X12
D. ITA03 560	(ID-10)	REQUIRED	SPECIAL SERVICES CODE. SEE APPENDIX FOR A LIST/ DEFINITION OF APPLICABLE CODES
E. ITA04 331	(ID-2)	REQUIRED	ALLOWANCE/CHARGE METHOD OF HANDLING CODE. 06 = CHARGE TO BE PAID BY CUSTOMER.
F. ITA06 359	(R-9)	REQUIRED	ALLOWANCE OR CHARGE RATE
G. ITA10 339	(R-10)	REQUIRED	ALLOWANCE OR CHARGE QUANTITY
H. ITA11 355	(ID-2)	REQUIRED	UNIT OR BASIS FOR MEASUREMENT SEE APPENDIX FOR CODES
I. ITA13 352	(AN-80)	REQUIRED	DESCRIPTION MUST BE PRESENT. IF ITA03 IS BLANK - ITA13 MUST BE #DESC

NTE-NOTE/SPECIAL INSTRUCTION

NTE*INV*FREE FROM NOTES@

A B C

PROVIDES INFORMATION IN A FREE-FORM FORMAT TO MEET
PURPOSES DEEMED NECESSARY BY AND NEGOTIATED BETWEEN
THE SENDER AND RECEIVER.

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A. NTE	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER.
B. NTE01 363	(ID-3) REQUIRED	NOTE REFERENCE CODE INV = INVOICE INSTRUCTION.
C. NTE02 003	(AN-60) REQUIRED	FREE FORM MESSAGE ANY PERTINENT REMARKS THAT RELATE TO THIS INVOICE.

TDS-TOTAL MONETARY VALUE SUMMARY

TDS*21250@

A B

SPECIFIES THE TOTAL AMOUNT OF THE TRANSMITTED INVOICE. VALUE WILL BE VERIFIED AGAINST THE LINE ITEM DETAIL AND ADDITIONAL CHARGE DETAIL EXTENSION COMPLIANCE.			
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
A. TDS	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. TDS01 361	(N2-10)	REQUIRED	TOTAL INVOICE AMOUNT INDICATES THE TOTAL AMOUNT OF THE INVOICE.
###	SEE ABOVE EXAMPLE --- 21250 = \$212.50		

CAD- CARRIER DETAIL INFORMATION

CAD*T****Z@
A B C

SPECIFIES THE TYPE OF TRANSPORTATION USED FOR THE SHIPMENT.

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A. CAD	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER.
B. CAD01 091	(ID-2) REQUIRED	TRANSPORTATION TYPE CODE A = AIR R = RAIL S = OCEAN T = SHIPPERS OPTION
C. CAD05 387	(AN-35) REQUIRED	ROUTING DEFAULT = Z

ELEMENT CAD05 IS NOT USED BY CATERPILLAR BUT IS NECESSARY TO PASS THE EDI STANDARDS.

ITA-ALLOWANCE/CHARGE INFORMATION

ITA*C*AX*ST*06***1250**06.25***TAXES@
 A B C D E G H K

SPECIFIES ALLOWANCE OR CHARGES BEING BILLED ON THE INVOICE			
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
### THIS SEGMENT IS TO BE USED TO BILL FOR TAXES. ANY OTHER ADDITIONAL CHARGES SHOULD BE BILLED ON THE ITA SEGMENT AT THE DETAIL LEVEL UNLESS THE ALLOWANCE OR CHARGE APPLIES TO THE ENTIRE INVOICE.			
A. ITA	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. ITA01 248	(ID-1)	REQUIRED	ALLOWANCE OR CHARGE INDICATOR C = CHARGE
C. ITA02 559	(ID-2)	REQUIRED	AGENCY QUALIFIER CODE. AX = ANSI ACCREDITED STANDARDS COMMITTEE, X12
D. ITA03 560	(ID-10)	REQUIRED	SPECIAL SERVICES CODE. SEE APPENDIX FOR A LIST/ DEFINITION OF APPLICABLE CODES
E. ITA04 331	(ID-2)	REQUIRED	ALLOWANCE/CHARGE METHOD OF HANDLING CODE. 06 = CHARGE TO BE PAID BY CUSTOMER.
F. ITA06 359	(R-9)	REQUIRED	ALLOWANCE OR CHARGE RATE.
G. ITA07 360	(N2-9)	REQUIRED	ALLOWANCE OR CHARGE TOTAL AMOUNT. SEE ABOVE EXAMPLE ---- 1250 = \$12.50
### THIS ELEMENT SHOULD REPRESENT THE TOTAL AMOUNT OF THE TAX BEING BILLED.			
H. ITA09 332	(R-6)	REQUIRED	ALLOWANCE OR CHARGE PERCENT. THE PERCENT OF TAX BEING BILLED
I. ITA10 339	(R-10)	REQUIRED	ALLOWANCE OR CHARGE QUANTITY.
J. ITA11 355	(ID-2)	REQUIRED	UNIT OR BASIS FOR MEASUREMENT. SEE APPENDIX FOR CODES.
K. ITA13 352	(AN-80)	REQUIRED	DESCRIPTION

CTT- TRANSACTION TOTALS

CTT*1@
A B

SPECIFIES A HASH TOTAL FOR A SPECIFIC ELEMENT (IT1) IN THE TRANSACTION SET.			
AIAG REFERENCE	FIELD CHARACTERISTICS		DESCRIPTION
A. CTT	(AN-3)	REQUIRED	DATA SEGMENT IDENTIFIER.
B. CTT01 354	(N0-6)	REQUIRED	NUMBER OF LINE ITEMS COUNT OF THE NUMBER OF 'IT1' SEGMENTS IN THE 'ST' TO 'SE' SEGMENT LOOP.
*** THIS SEGMENT IS USED FOR BALANCING AND CONTROL PURPOSES.			
*** INVOICE WILL BE REJECTED IF THE 'CTT' SEGMENT IS NOT IN			
*** ORDER.			

SE -TRANSACTION SET TRAILER

SE*17*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 RECORDS HAVE BEEN CORRECTLY PROCESSED. (ONE "SE" SEGMENT PER "ST" SEGMENT PROCESSED)				
AIAG REFERENCE	FIELD 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 LAST "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*123456789@

A B C

IDENTIFIES THE END OF A FUNCTIONAL GROUP. THIS SEGMENT
CONTAINS THE COUNT OF INCLUDED TRANSACTION SETS AND THE
DATA INTERCHANGE CONTROL NUMBER USED TO INSURE ALL
FUNCTIONAL GROUPS HAVE BEEN CORRECTLY PROCESSED.
(ONE "GE" SEGMENT PER "GS" SEGMENT PROCESSED)

AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A. GE	(AN-2) REQUIRED	DATA SEGMENT IDENTIFIER.
B. GE01 97	(NUM-6) REQUIRED	NUMBER OF INCLUDED TRANSACTIONS. 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*123456789@
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)			
	AIAG REFERENCE	FIELD CHARACTERISTICS	DESCRIPTION
A.	IEA	(AN-3) REQUIRED	DATA SEGMENT IDENTIFIER.
B.	IEA01 710	(NUM-6) REQUIRED	NUMBER OF INCLUDED GROUPS. ACCUMULATED TOTAL NUMBER OF "GS" SEGMENTS INCLUDED IN THIS INTERCHANGE (SINCE THE LAST "ISA" SEGMENT).
C.	IEA02 709	(NUM-9) REQUIRED	INTERCHANGE CONTROL NUMBER. SAME CONTROL NUMBER AS USED IN THE PREVIOUS ISA13.

SAMPLE DATA FOR INVOICE TRANSACTION

SAMPLE FOR 810 TRANSACTION -- INVOICE

SEGMENT

ISA*00* *00* *ZZ*X0000X0 *09*00507047919 *
940301*0001*U*00200*000000001*0*P*\@
GS*IN*X0000X0*19*940301*0001*123456789*X*003030@
ST*810*0001@
BIG*940202*123456789012**AAB 12345@

CUR*PE*CAD@
REF*PK*12345678901234@
N1*ST*CATERPILLAR@
N2*FACILITY@
N3*330 SW ADAMS STREET@
N4*PEORIA*IL*61630@
N1*SE**92*X0000X0@
N1*SF*SHIPMENT LOCATION@
ITD*08*ZZ*1**365* *****PAYMENT TERMS@
DTM*011*940301@
IT1*1*1*EA*100.00**PO*AAAX99999*BP*1234567890*RN*123@
IT3*1*PC@
PID*F*****ITEM DESCRIPTION@
PWK*AD*IE***ZZ*FACC*FF@
PWK*AD*IE***ZZ*CNTRL*A9999@
PWK*AD*IE***ZZ*SUBA*123@
PWK*AD*IE***ZZ*SSUB*12@
PWK*AD*IE***ZZ*EXPE*1234@
PWK*AD*IE***ZZ*ORDE*12345@

PWK*AD*IE***ZZ*MISC*123@
ITA*C*AX*S0050*06**100.00***1234567890*EA**DESCRIPTION@
NTE*INV*FREE FORM NOTES@
|
TDS*21250@
CAD*T***Z@
ITA*C*AX*ST*06***1250**06.25***TAXES@
CTT*1@
SE*28*0001@
GE*1*123456789@
IEA*1*000000001@

RECOMMENDED EDITING PROCEDURES

SEGMENT SEQUENCE

1. 'ISA' WILL BE THE FIRST RECORD OR PRECEDED BY 'IEA'.
2. 'IEA' WILL BE THE LAST RECORD.
3. 'GS' WILL BE PRECEDED BY 'ISA' OR 'GE'.
4. 'ST' WILL BE PRECEDED BY 'GS' OR 'SE'.
5. 'GE' WILL BE PRECEDED BY 'SE'.
6. 'IEA' WILL BE PRECEDED BY 'GE'.
7. THE INTERCHANGE CONTROL NUMBER IN 'IEA' (FIELD IEA02) WILL BE THE SAME AS THE PREVIOUS 'ISA' (FIELD ISA13).
8. THE DATA INTERCHANGE CONTROL NUMBER IN 'GE' (FIELD GE02) WILL BE THE SAME AS THE PREVIOUS 'GS' (FIELD GS06).
9. THE TRANSACTION SET CONTROL NUMBER IN 'SE' (FIELD SE02) WILL BE THE SAME AS THE PREVIOUS 'ST' (FIELD ST02).

COUNT BALANCING

1. THE 'NUMBER OF INCLUDED FUNCTIONAL GROUPS' IN 'IEA' (FIELD IEA01) WILL EQUAL THE NUMBER OF 'GS' RECORDS SINCE THE PREVIOUS 'ISA'.
2. THE 'NUMBER OF INCLUDED TRANSACTION SETS' IN 'GE' (FIELD GE01) WILL EQUAL THE NUMBER OF 'ST' RECORDS SINCE THE PREVIOUS 'GS'.
3. THE 'NUMBER OF INCLUDED SEGMENTS' IN 'SE' (FIELD SE01) WILL EQUAL THE NUMBER OF RECORDS READ SINCE THE PREVIOUS 'ST'. THE 'ST' AND 'SE' RECORDS ARE INCLUDED IN THIS COUNT.