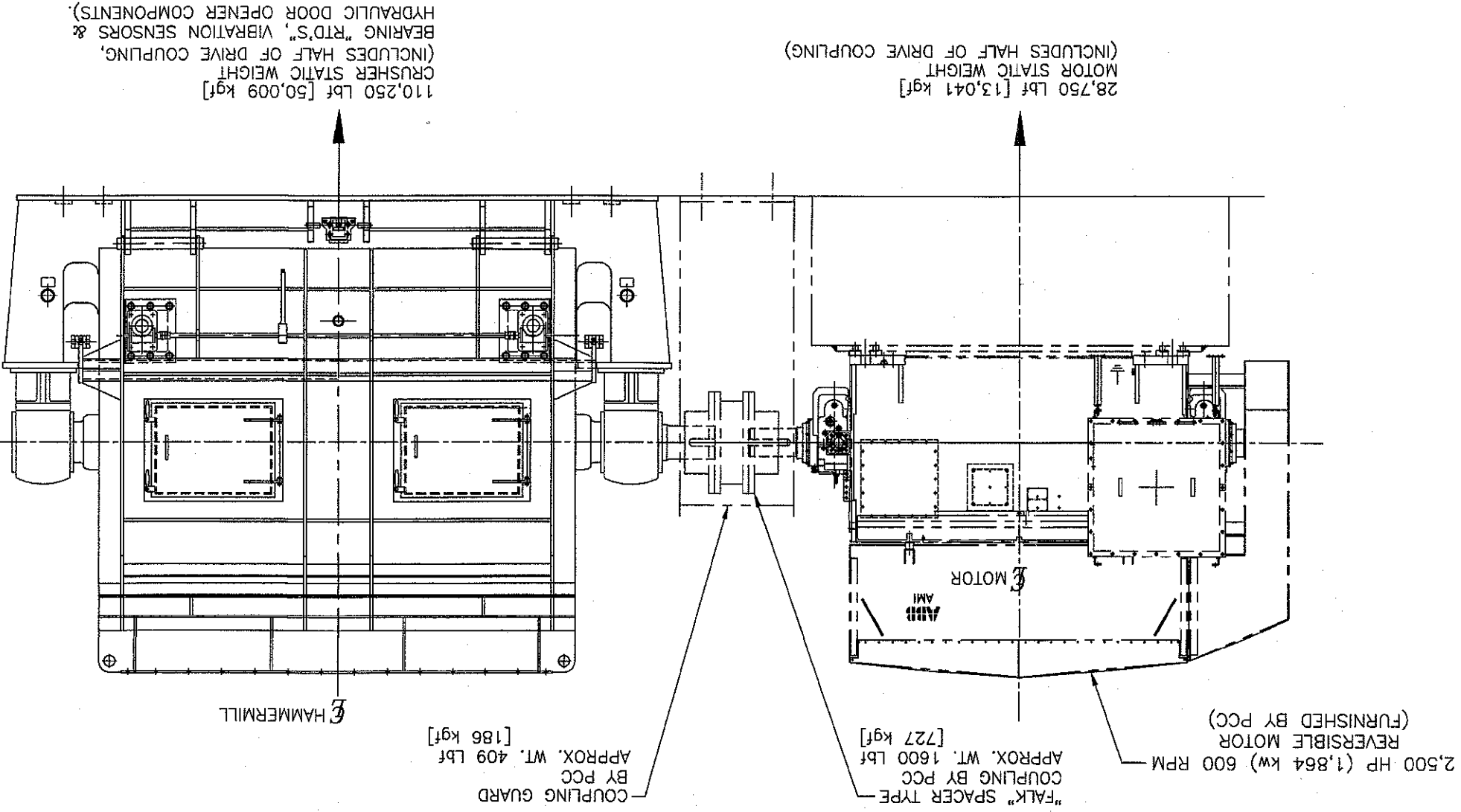
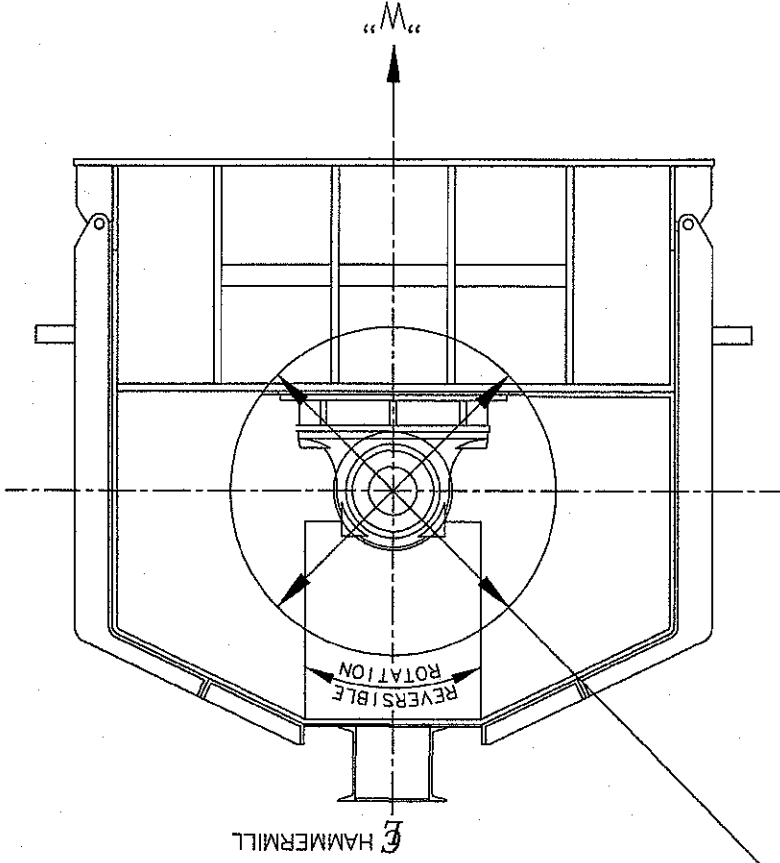


"U" IS THE NORMAL ROTATING VECTOR GENERATED BY THE CRUSHING FORCE AND THE UNBALANCED LOAD (SEE FOUNDATION NOTE #2)
 "P" IS THE ABNORMAL ROTATING VECTOR GENERATED BY ONE MISSING HAMMER @ 600 R.P.M. (SEE FOUNDATION NOTE #1)



110,250 Lbf [50,009 kgf]
 CRUSHER STATIC WEIGHT
 (INCLUDES HALF OF DRIVE COUPLING,
 BEARING "RTD'S", VIBRATION SENSORS &
 HYDRAULIC DOOR OPENER COMPONENTS).

FOUNDATION NOTE:

1. ABNORMAL FORCE VECTOR "P" IS TO BE MULTIPLIED BY AN IMPACT FACTOR OF AT LEAST 1.5. APPLY THE RESULTING FORCE VECTOR INDEPENDENTLY, IN BOTH HORIZONTAL AND VERTICAL DIRECTIONS.
2. AS WITH ANY ROTATING MACHINERY INSTALLATION, THE DYNAMIC RESPONSE OF THE SUPPORT STRUCTURE AND FOUNDATION SHOULD BE CONSIDERED DURING THE STRUCTURAL DESIGN PROCESS. THE PRIMARY FORCING FREQUENCIES OF THE CRUSHER ARE THE OPERATING SPEED OF THE ROTOR & THE OPERATING SPEED OF THE ROTOR MULTIPLIED BY THE NUMBER OF HAMMER ROWS; THIS MACHINE HAS 8 ROWS OF HAMMERS. THE LOADING SHOULD INCLUDE THE NORMAL ROTATING VECTOR "U" IN ADDITION TO THE STATIC WEIGHT. APPLY THE NORMAL VECTOR "U" AS A DYNAMIC, STEADY STATE HARMONIC LOAD.
3. ALL FORCES ARE SHOWN FOR THE WORST LOAD CONDITIONS. THE WORST LOAD CONDITION IS TO BE USED FOR THE FOUNDATION DESIGN AND IS THE SUM OF "U" AND "P" (MODIFIED PER NOTES 1 & 2).

MACHINE SIZE: SXCB 225 REVERSIBLE HAMMERMILL		
"U" NORMAL ROTATING VECTOR	"P" ABNORMAL ROTATING VECTOR	ROTOR ASSEMBLY (INCLUDES COUPLING)
20,200 Lbf	14,800 Lbf	WR ² = 69,300 Lbf·ft ²
89,854 N	65,834 N	GD ² = 11,684 kgf·m ²

CERTIFIED FOR CONSTRUCTION
 FOR SERIAL NO. 2206 & 07
 BY WKG/SMS/DATE: 7/16/08

COAL CRUSHER
 AMERICAN ELECTRIC POWER
 KAMMER UNITS 1-3, FUEL SWITCH PROJECT
 P.O. 181135120

EQUIPMENT TAG NUMBERS
 S/N 7206: 13-CH-CR-7000
 S/N 7207: 13-CH-CR-7001

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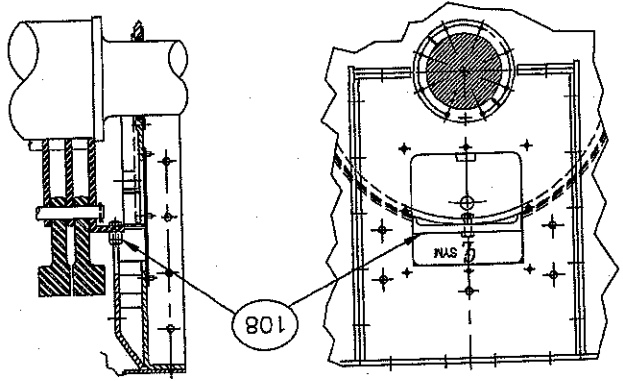
APPROVED & SIGNED: [Signature]
 CHECKED BY: [Signature]
 DRAWN BY: [Signature]
 DATE: 7/16/08
 SCALE: N.T.S.

03KSN7206-FLD A
 DRAWING NO. 4
 SIZE: [Blank]
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REV A

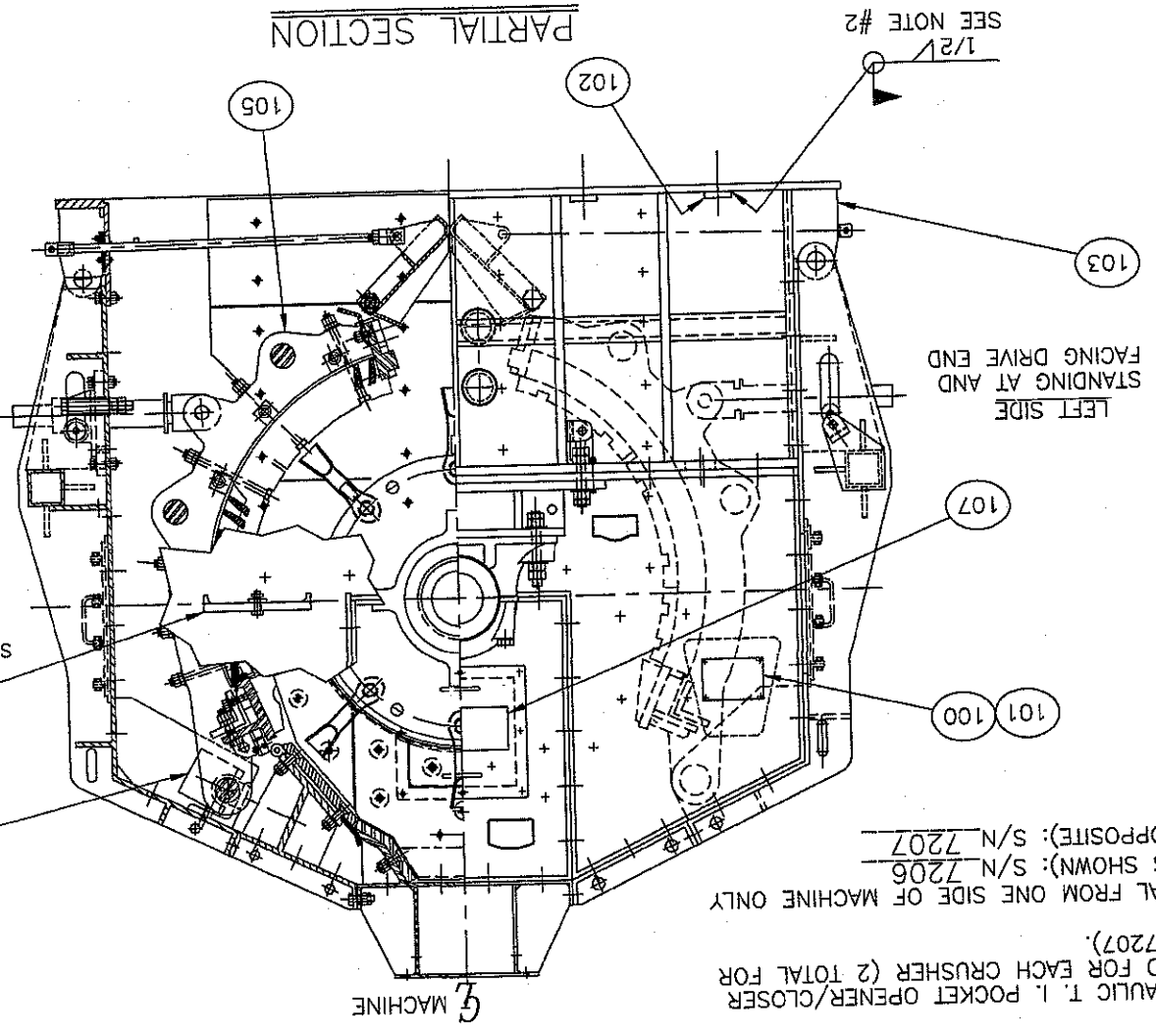
ITEM	QTY	DESCRIPTION
1	1	COMPLETE MACHINE ASSEMBLY CONSISTING OF:
100	1	NAMEPLATE-COMPLETE
101	1	NAMEPLATE-COMPLETE
102	12	FOUNDATION WASHER, 2-1/8" CENTER DIA. 18315-12
103	1	FRAME GROUP, SXCB 225 HAMMERMILL
104	1	ROTOR ASSY, SXCB 225 HAMMERMILL
105	2	CAGE ASSEMBLY, SXCB/G 225 HAMMERMILL
106	2	CAGE ADJUSTMENT GROUP, SXCB/G 225 HMML. 03KM00225-090AA
107	1	ANSI SAFETY LABEL GROUP, SXCB 225 HMML. 03KSN7206-035AA
108	2	ANTI-ROTATION TOOL, SXCB 225 HAMMERMILL 21249-05
1	1	HYDRAULIC DOOR OPENER, SXCB 225 HMML. 03KSN7206-510AA
1	1	HYDRAULIC T.I. POCKET OPENER/CLOSER 03KSN7206-519AA
1	1	RTD ASSEMBLY, SXCB 225 HAMMERMILL 03KSN7206-531AA
1	1	VIBRATION MONITORING SENSORS 03KSN7206-540AA
1	1	COUPLING DRIVE GROUP, SXCB 225 HMML. 03KSN7206-580AA

REFER TO THESE DRAWINGS FOR BILLS OF MATERIAL AND ARRANGEMENT OF THIS EQUIPMENT.



VIEW "A-A" (WITH INSPECTION DOOR REMOVED) - SEE NOTE 7

NOTE:
 1. ONE (1) HYDRAULIC T. I. POCKET OPENER/CLOSER IS TO BE USED FOR EACH CRUSHER (2 TOTAL FOR S/N 7206 & 7207).
 2. ROTOR REMOVAL FROM ONE SIDE OF MACHINE ONLY (LEFT SIDE-AS SHOWN): S/N 7206 (RIGHT SIDE-OPPOSITE): S/N 7207

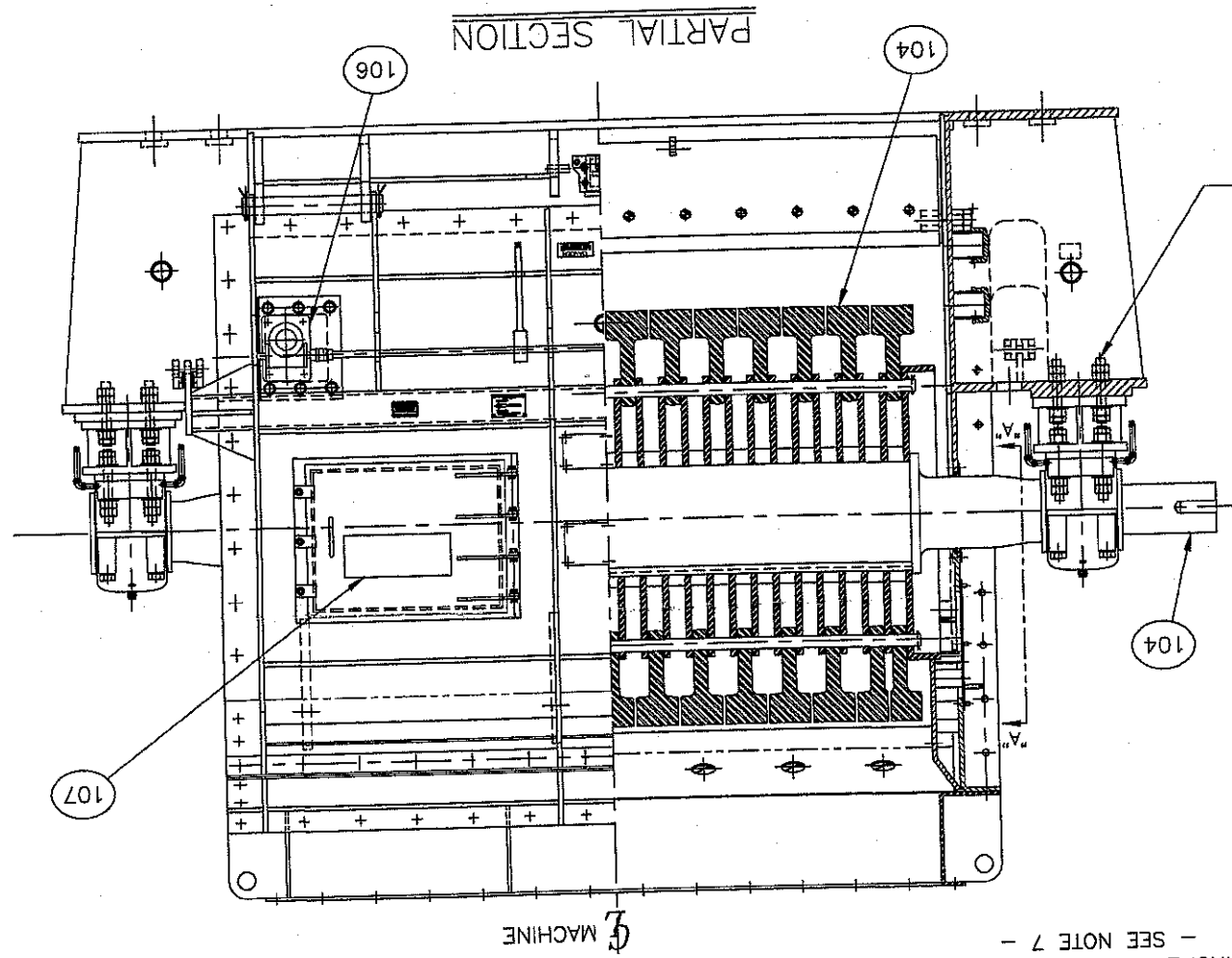


CAGE SHIM SET REFER TO CAGE ASSEMBLY DWG. 03KM00225-080AA TO END DOORS WHEN ASSEMBLING CAGES

SEE NOTE 6

RIGHT SIDE STANDING AT END FACING DRIVE END

SEE NOTE #3



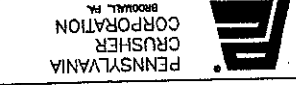
PARTIAL SECTION

NOTES:

1. STAMP SERIAL NUMBER BEHIND THE NAMEPLATE (ITEMS 100, & 101) ON THE FRAME (ITEM 103).
2. FOUNDATION WASHERS (ITEM 102) ARE TO BE FIELD WELDED TO FRAME (WASHERS ARE SHIPPED LOOSE) SEE GEN. DIMENSIONS DWG.
3. REFER TO FRAME GROUP FOR MOUNTING HARDWARE AND INSTRUCTIONS.
4. FOR ROTOR REMOVAL SEE DWG. #03KSN7206-048AA.
5. ALL BOLTING FLANGES ARE TO BE SEALED WITH HEAVY GREASE.
6. ANTI-ROTATION TOOL STORAGE POSITION.
7. TO PREVENT ROTATION OF ROTOR DURING MAINTENANCE, INSTALL ONE (1) ANTI-ROTATION TOOL ON EACH END OF ROTOR WITH HARDWARE SUPPLIED USING HOLES IN ROTOR END DISC. SEE VIEW "A-A".
8. FOR ADDITIONAL DATA SEE ELECTRICAL SYSTEM LAYOUT DRAWING 10ASN7204-717AA, WHICH IS CONNECTED TO S/N'S 7204 & 05 (1760X6 POSIMETRIC FEEDERS).

EQUIPMENT TAG NUMBERS
 S/N 7206: 13-CH-CR-7000
 S/N 7207: 13-CH-CR-7001

CERTIFIED FOR CONSTRUCTION
 FOR SERIAL NO. 7206 & 07
 BY: [Signature] DATE: 11/6/08



COAL CRUSHER
 AMERICAN ELECTRIC POWER
 KAMMER UNITS 1-3, FUEL SWITCH PROJECT
 P.O. 181135120

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APPROVED & AUTHORIZED	DATE: 11/6/08
CHECKED & AUTHORIZED	SCALE: N.T.S.
DRAWN	DATE: 11/6/08
SIZE	SCALE: N.T.S.
DO NOT SCALE DRAWING	
REF. DWG. #03KSN6906-050AA, REV. B	

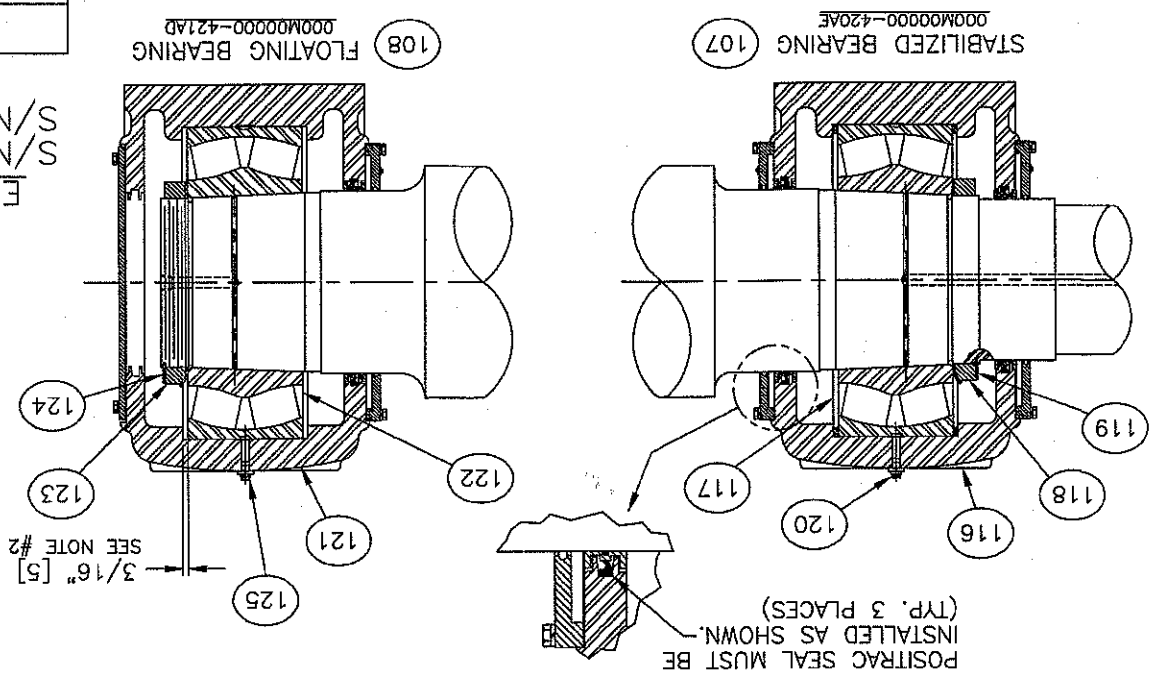
ITEM	QTY	DESCRIPTION	PART/GROUP No.
108	1	BEARING GROUP-FLOATING-MIETHER	000M0000-421AD
121	1	PLBLK HSG ASSY LESS/BRG-FLOATING	166833
CONSISTING OF:			
		(1) BEARING HOUSING (SDAF 553248-35)	
		(DET. #C-33589-R)	
		(1) SEAL RING-LARGE DIA (LOR-519)SKF POSITRAC	
		PLUS WITH B-10724-606 CONTACT ELEMENT	
		(1) END PLUG (EP 24966 S) DET. #A-24966	
		(1) SHROUD-LARGE DIA (10-08) (DET. #C-19678)	
		(2) ALMITE P/N 1688-B GREASE FITTINGS	
		IN SHROUDS	
122	1	ROLLER BEARING-TAPERED	167037
123	1	LOCKNUT	160034
124	1	LOCKPLATE	161034
125	1	GREASE FITTING	209002

ITEM	QTY	DESCRIPTION	PART/GROUP No.
107	1	BEARING GROUP-STABILIZED-MIETHER	000M0000-420AE
116	1	PLBLK HSG ASSY LESS/BRG-FIXED	166832
CONSISTING OF:			
		(1) BEARING HOUSING (SDAF 553248-35)	
		(DET. #C-33588)	
		(1) SEAL RING-LARGE DIA (LOR-519)SKF POSITRAC	
		PLUS WITH B-10724-606 CONTACT ELEMENT	
		(1) SEAL RING-SM. DIA (LOR-513) SKF POSITRAC	
		PLUS WITH B-10724-552 CONTACT ELEMENT	
		(2) STABILIZING RING (A-5679)	
		3/16" THICK (DET. #A-15611)	
		(1) SHROUD-LARGE DIA (10-08) (DET. #C-19678)	
		(1) SHROUD-SMALL DIA (09-00) (DET. #B-32155)	
117	1	ROLLER BEARING-TAPERED	167037
118	1	LOCKNUT	160034
119	1	LOCKPLATE	161034
120	1	GREASE FITTING	209002

ITEM	QTY	DESCRIPTION	PART/GROUP No.
100	1	ROTOR GROUP ASSEMBLY CONSISTING OF:	03KSN7206-070AA
101	8	SUSPENSION BAR,SXCB/G 225 HMML	527759-85
102	16	JUMBO STEEL FLAT WASHER,3/4" SCREW SIZE	120221
103	16	WASHER CIRC HARDENED STEEL, 3/4"	120055
104	16	BOLT, HEX HEAD, 3/4"-16 UNF-2A X 2" LG	109760
105	100	BIG BUSTER SINGLE HARDFACED HAMMER	528362-60
106	16	BIG BUSTER SINGLE HARDFACED END HAMMER	528363-60
107	1	SDAF248-B BEARING GROUP, FIXED	000M0000-420AE
108	1	SDAF248-B BEARING GROUP, FLOATING	000M0000-421AD
109	4	PULL-OUT DOWEL PIN,5/8" DIA X 5" LG	126255
110	8	STUD 1-1/2"-6 UNC-2A X 12-1/2" LG	108563-1250
111	16	USS HIGH STRENGTH FLAT WASHER,1-1/2" DIA	120310
112	32	HEX NUT, HEAVY 1-1/2"-6 UNC-2B	112083
113	4	PIPE, 1/2" X 2" LG, SCHEDULE 40	128004-02000A
114	4	PIPE, 1/2" X 6" LG, SCHEDULE 40	128004-06000A
115	4	ELBOW, 90 DEGREE, 1/2" PIPE	134004

REPLACEMENT PARTS BREAKDOWN FOR FLOATING BEARING

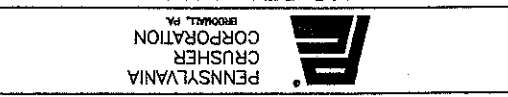
REPLACEMENT PARTS BREAKDOWN FOR STABILIZED BEARING



EQUIPMENT TAG NUMBERS
S/N 7206: 13-CH-CR-7000
S/N 7207: 13-CH-CR-7001

- NOTES:
1. PARTS MARKED WITH AN (*) (ITEMS 109, 110, 111, AND 112 FOR BEARINGS ARE TO BE USED TO MOUNT THE BEARINGS TO THE BEARING PEDESTAL AT ASSEMBLY.
 2. CENTER BEARING IN FLOATING BEARING HOUSING BEFORE TIGHTENING MOUNTING BOLTS AND DOWELING.
 3. STABILIZED BEARING IS TO BE ON THE DRIVE SIDE OF CRUSHER.
 4. INSTALL EIGHT (8) ROWS OF HAMMERS, (4) ROWS OF (14) FULL HAMMERS, ALTERNATING WITH (4) ROWS OF (11) FULL HAMMERS AND (4) END HAMMERS, (2) END HAMMERS ON EACH END.
 5. DIMENSIONS WITHIN BRACKETS [] ARE IN MILLIMETERS.
 6. BEARINGS ARE TO BE LUBRICATED WITH MOBILITH SHC 220 SYNTHETIC GREASE.

WEIGHT = 33,450 Lbf [15,173 kgf]



SXCB 225 REV. HAMMERMILL
ROTOR GROUP / ASSEMBLY
(WITH HARDFACED HAMMERS)

REV	DATE	SCALE	N.T.S.
B	8/1/08	4	

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REV	DESCRIPTION	DATE
2/20/09	ADDED DRILLING DEPTH FOR ITEM 109.	W. Goodwin S. Graetzinger
03/05/09	CLARIFIED SUSP. BAR HOLE LOCATIONS IN END VIEW & ADDED EQUIPMENT TAG NUMBERS	W. Goodwin S. Graetzinger

