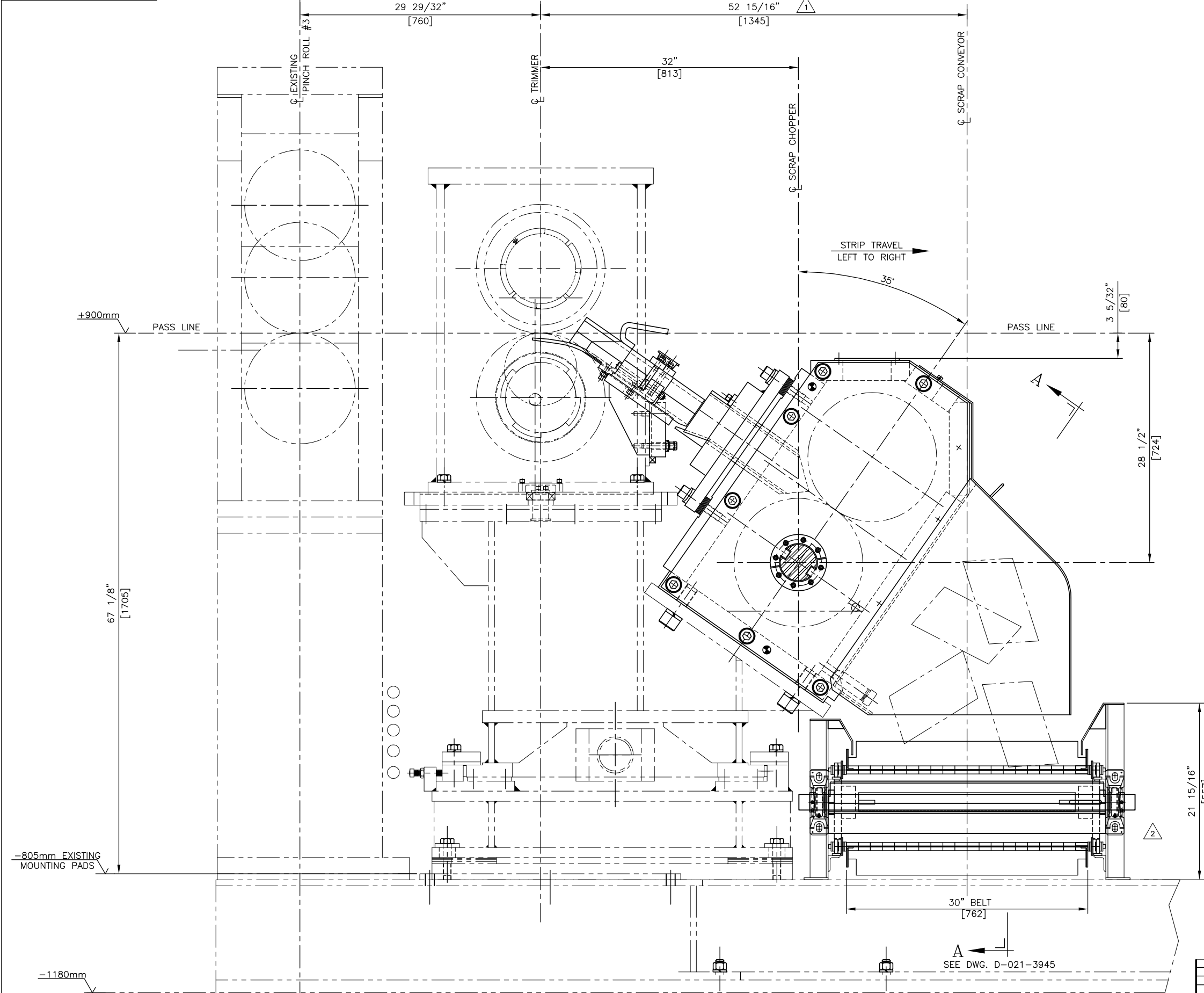




- RELATED DRAWINGS:
- GENERAL ARRANGEMENT.....D-021-3945
 - GENERAL ARR'G'T SECTIONS.....D-021-3946
 - PLAN VIEW ARRANGEMENT.....D-021-3947
 - ENTRY SCRAP CHUTE ARR'G'T.....D-021-3948
 - EXIT CHUTE ARR'G'T.....D-021-3950
 - LUBRICATION ARRANGEMENT.....D-021-3951
 - SCRAP CONVEYOR ARR'G'T.....D-021-3952
 - SECTION THRU HEAD (LH).....M-021-3889
 - SECTION THRU HEAD (RH).....M-021-3890

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CANADIAN # 1,311,733 & 1,208,533
BRITISH # 2,203,096
FRENCH # 86-16390
GERMAN # 36-36-533
ITALIAN # 1,224,838
Reconstruction of a patented product is patent infringement.

DWG. STATUS JOB: M834-SC

REVISED

DATE: 09-29-14

BUTECH Bliss
SALEM, OHIO, USA

TITLE
SCRAP CHOPPER
MODEL No. SC400W-1
ELEVATION ARRANGEMENT

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DRAWN MT CHECKED MT CNC REF. JOB No.

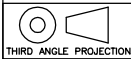
DATE 4-3-14 DATE 6-11-14 TO SCALE REF. DWG. No.

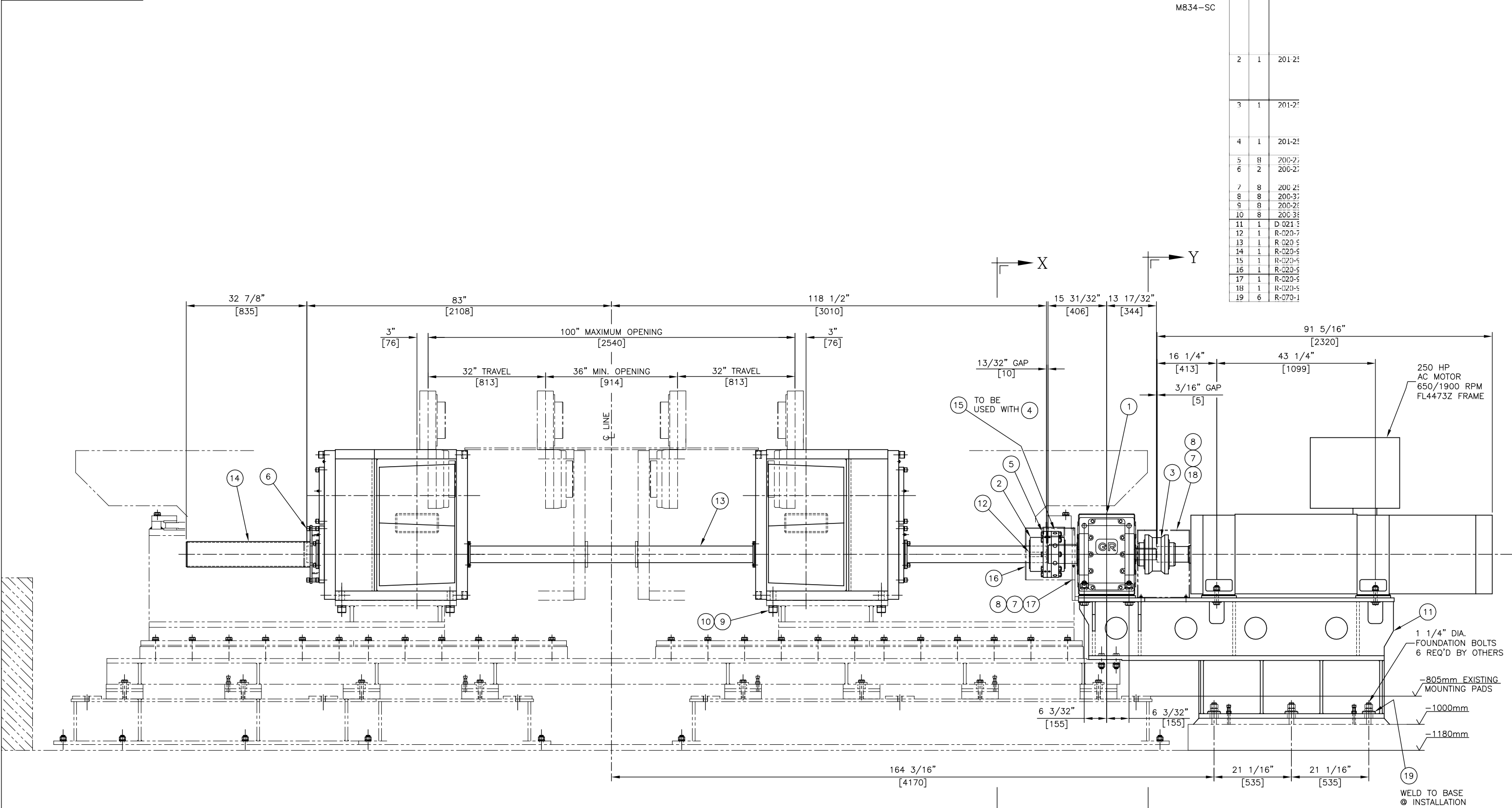
SCALE SIZE MACHINE NUMBER REV.

M834-SC 1 2"=1'-0" D-021-3944 2

REV.	BY	DATE	DESCRIPTION
2	MT	9-29-14	REVISED CONVEYOR PROFILE
1	MDL	9/16/14	52 15/16" WAS 53 11/32"
0	MT	6-11-14	ISSUED FOR CONSTRUCTION
WELDS TO BE CONTINUOUS FILLET & 1/2 OF PLATE THICKNESS UNLESS NOTED OTHERWISE. BASED ON THINNEST PLATE OF THE JOINT			
DO NOT SCALE ~ WORK TO DIMENSIONS			
ENGLISH TOLERANCES UNLESS NOTED OTHERWISE			
X" (FAB/MACH)	.X"	.XX"	.XXX"
±1/16"	±.030"	±.010"	±.005"
METRIC TOLERANCES UNLESS NOTED OTHERWISE			
FABRICATION	X	.X	.XX
±1.5 mm	±1.0 mm	±.20 mm	±.10 mm
ANGULAR ±0°-30° UNLESS NOTED OTHERWISE			
FINISH SYMBOLS - MICROINCHES			
16 POLISH	125 SEMI-FINE		
32 GRIND	250 MEDIUM		
63 FINE MACHINE	500 ROUGH		

ALCOA MICROMILL 
SAN ANTONIO WORKS
PROJECT REFERENCE 2015 EXIT EQUIPMENT UPGRADE
DRAWING NUMBER D-107066-SA





ITEM	QTY.	PART
1	1	201-17
2	1	201-25
3	1	201-27
4	1	201-25
5	8	200-27
6	2	200-27
7	8	200-25
8	8	200-37
9	8	200-25
10	8	200-38
11	1	D-021-5
12	1	R-020-7
13	1	R-020-5
14	1	R-020-5
15	1	R-020-5
16	1	R-020-5
17	1	R-020-5
18	1	R-020-5
19	6	R-070-1

MATERIAL SPECIFICATIONS:

MATERIAL TO BE CUT: ALUMINUM ALLOY

THICKNESS: .325" MAX.
.020" MIN.

STRIP WIDTH: 80" MAX.
STRIP WIDTH TRIMMED: 45" MIN.

SHEAR STRENGTH: 34,000 PSI MAX.

LINE SPEED: 1500 FPM MAX.

SCRAP WIDTH: 6" MAX.

DRIVE CALCULATIONS:

MAX. OUTPUT SPEED = $\frac{1820}{5.08} = 358.3 \text{ RPM}$

= $\frac{16.77}{12} \times 358.3 \text{ RPM} = 1500 \text{ FPM}$

VIEW A-A
FROM DWG. D-021-3944

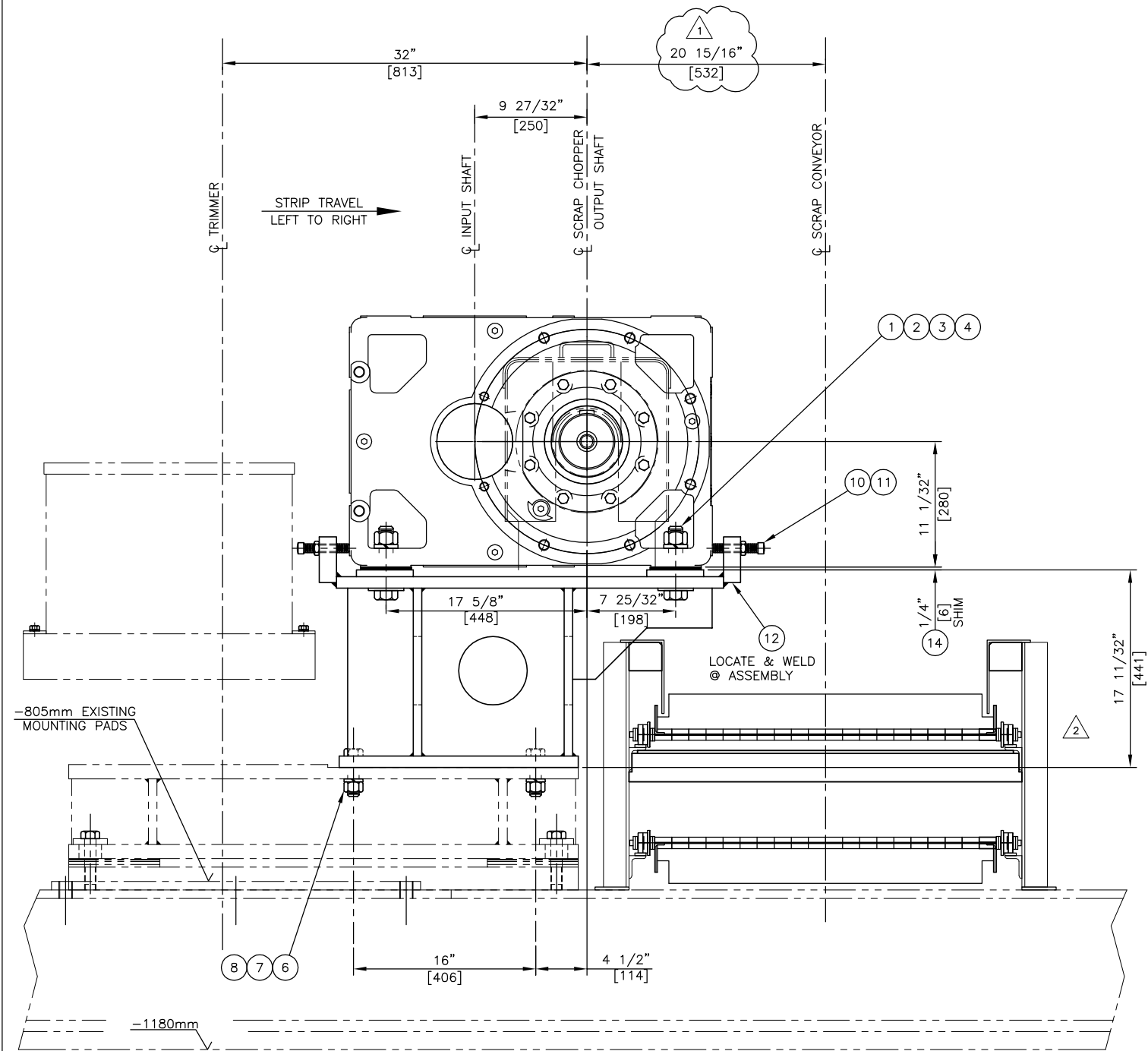
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CANADIAN # 1,311,753 & 1,208,533
BRITISH # 2,203,086
FRENCH # 2,801,420
GERMAN # 38-39-533
ITALIAN # 1,224,839
Reconstruction of a patented product is patent infringement. 6/90

DWG. STATUS: JOB: M834-SC
ISSUED FOR CONSTRUCTION
DATE: 09-16-14

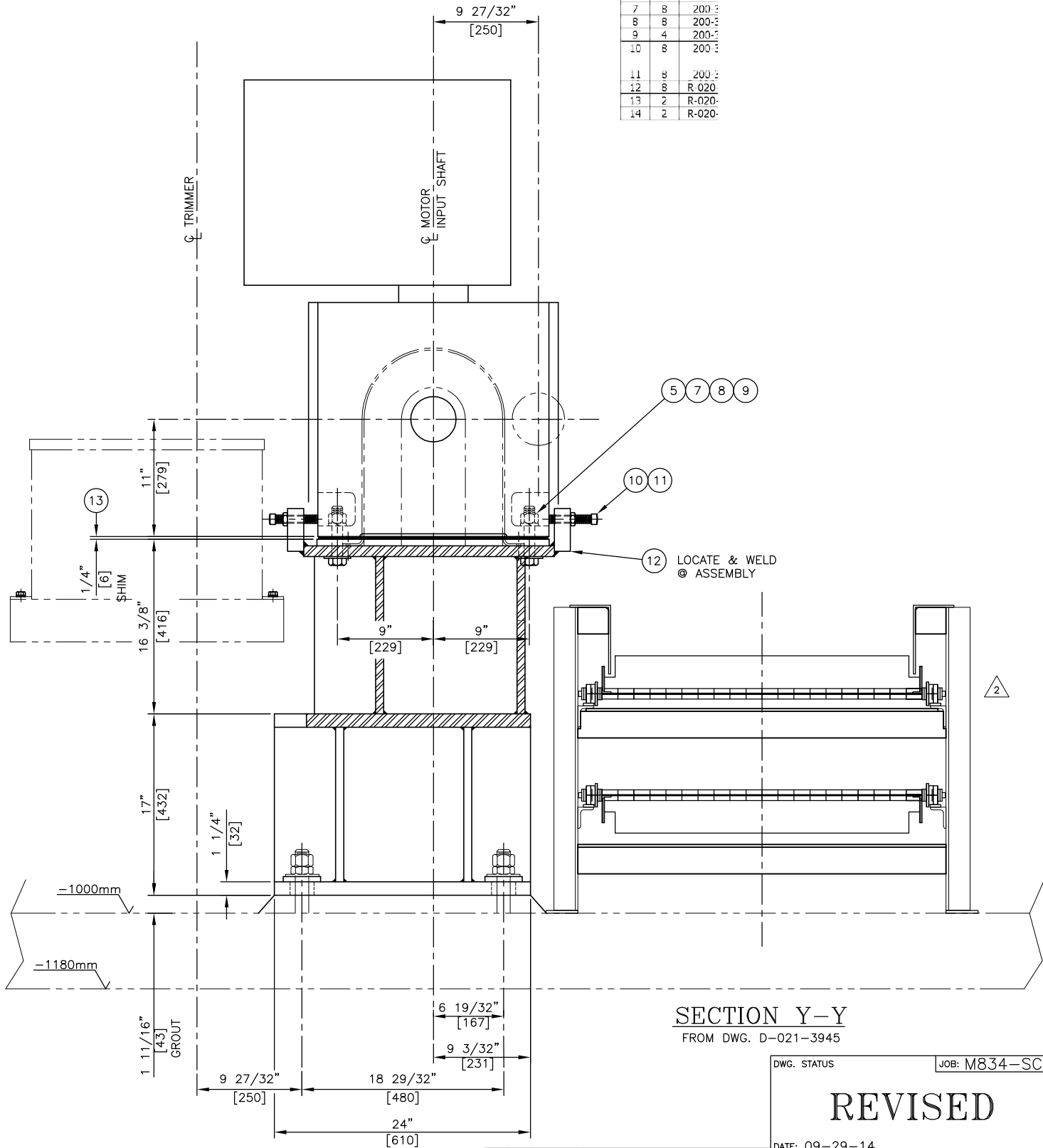
ALCOA MICROMILL 
SAN ANTONIO WORKS
PROJECT REFERENCE: 2015 EXIT EQUIPMENT UPGRADE
DRAWING NUMBER: D-107067-SA

REV.	MT	DATE	DESCRIPTION
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WELDS TO BE CONTINUOUS FILLET & 1/2 OF PLATE THICKNESS UNLESS NOTED OTHERWISE, BASED ON THINNEST PLATE OF THE JOINT			
DO NOT SCALE ~ WORK TO DIMENSIONS			
ENGLISH TOLERANCES UNLESS NOTED OTHERWISE			
X" (FAB/MACH)	.X"	.XX"	.XXX"
±1/16"	±.030"	±.010"	±.005"
METRIC TOLERANCES UNLESS NOTED OTHERWISE			
FABRICATION	X	.X	.XX
±1.5 mm	±1.0 mm	±.20 mm	±.10 mm
ANGULAR ±0°-30° UNLESS NOTED OTHERWISE			
FINISH SYMBOLS - MICROINCHES			
16	POLISH	125	SEMI-FINE
32	GRIND	250	MEDIUM
63	FINE MACHINE	500	ROUGH

BUTECH Bliss SALEM, OHIO, USA			
TITLE: SCRAP CHOPPER MODEL No. SC400W-1 GENERAL ARRANGEMENT			
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DRAWN MT	CHECKED MT	CNC	REF. JOB No.
DATE 3-19-14	DATE 6-11-14	TO SCALE	REF. DWG. No.
SCALE 1"=1'-0"	SIZE D-021	MACHINE -3945	NUMBER REV. 0



SECTION X-X
FROM DWG. D-021-3945



SECTION Y-Y
FROM DWG. D-021-3945

ITEM	QTY.	PART
1	4	200-2
2	4	200-2
3	4	200-2
4	4	200-2
5	4	200-2
6	4	200-2
7	8	200-2
8	8	200-2
9	4	200-2
10	8	200-2
11	8	200-2
12	8	R-020
13	2	R-020
14	2	R-020

DWG. STATUS
JOB: M834-SC

REVISED

DATE: 09-29-14

BUTECH Bliss
SALEM, OHIO, USA

TITLE
SCRAP CHOPPER
MODEL No. SC400W-1
GENERAL ARRANGEMENT SECTIONS

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DRAWN MT
CHECKED MT
CNC
REF. JOB No.

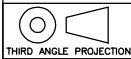
DATE 4-3-14
DATE 6-11-14
TO SCALE
REF. DWG. No.

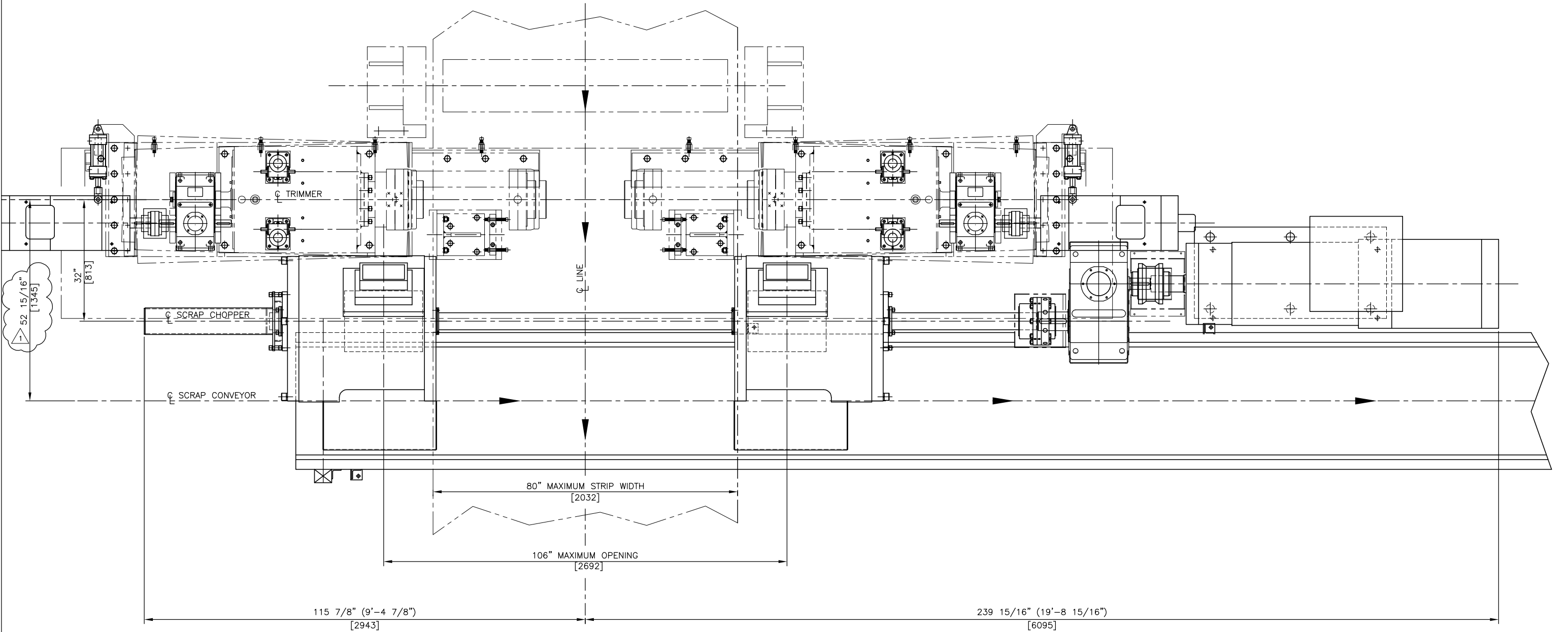
SCALE 2"=1'-0"
SIZE MACHINE
NUMBER
REV.

2	MT	09-29-14	REVISED CONVEYOR PROFILE
1	MDL	09/16/14	20 15/16" WAS 21 11/32"
0	MT	06-11-14	ISSUED FOR CONSTRUCTION
REV.	BY	DATE	DESCRIPTION
			WELDS TO BE CONTINUOUS FILLET & 1/2 OF PLATE THICKNESS UNLESS NOTED OTHERWISE. BASED ON THINNESS PLATE OF THE JOINT
			DO NOT SCALE ~ WORK TO DIMENSIONS
			ENGLISH TOLERANCES UNLESS NOTED OTHERWISE
			X" (FAB/MACH) .X" .XX" .XXX"
			±1/16" ±.030" ±.010" ±.005"
			METRIC TOLERANCES UNLESS NOTED OTHERWISE
			FABRICATION X .X .XX
			±1.5 mm ±1.0 mm ±.20 mm ±.10 mm
			ANGULAR ±0°-30° UNLESS NOTED OTHERWISE
			FINISH SYMBOLS - MICROINCHES
			16 POLISH 125 SEMI-FINE
			32 GRIND 250 MEDIUM
			63 FINE MACHINE 500 ROUGH

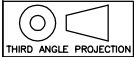
	ALCOA MICROMILL	8
SAN ANTONIO WORKS		
PROJECT REFERENCE	2015 EXIT EQUIPMENT UPGRADE	
DRAWING NUMBER	D-107068-SA	

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CANADA # 1,311,733 & 1,085,533
BRITISH # 2,200,086
FRENCH # 86-16080
GERMAN # 38-30-923
ITALIAN # 1,224,839
Reconstruction of a patented product is patent infringement. 8-90





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CANADIAN # 1,311,713 & 1,008,533
BRITISH # 2,263,086
FRENCH # 96-11090
GERMAN # 36-39-533
ITALIAN # 1,524,839
Reconstruction of a patented product is patent infringement.



THIRD ANGLE PROJECTION

**ALCOA MICROMILL**
SAN ANTONIO WORKS



PROJECT REFERENCE
2015 EXIT EQUIPMENT UPGRADE

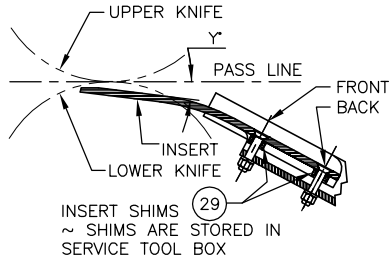
DRAWING NUMBER
D-107069-SA

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REV.	BY	DATE	DESCRIPTION
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			DO NOT SCALE ~ WORK TO DIMENSIONS
			ENGLISH TOLERANCES UNLESS NOTED OTHERWISE
			X" (FAB/MACH) .X" .XX" .XXX"
			±1/16" ±.030" ±.010" ±.005"
			METRIC TOLERANCES UNLESS NOTED OTHERWISE
			FABRICATION X .X .XX
			±1.5 mm ±1.0 mm ±.20 mm ±.10 mm
			ANGULAR ±0°-30° UNLESS NOTED OTHERWISE
			FINISH SYMBOLS - MICROINCHES
			16 POLISH 125 SEMI-FINE
			32 GRIND 250 MEDIUM
			63 FINE MACHINE 500 ROUGH

M834-SC	1	00213944	
JOB	QTY	ARRGT	

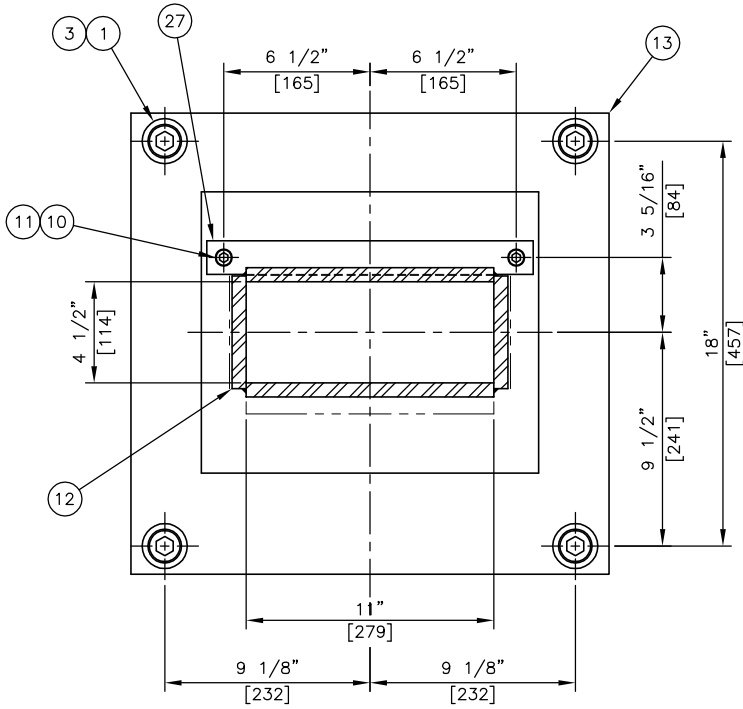
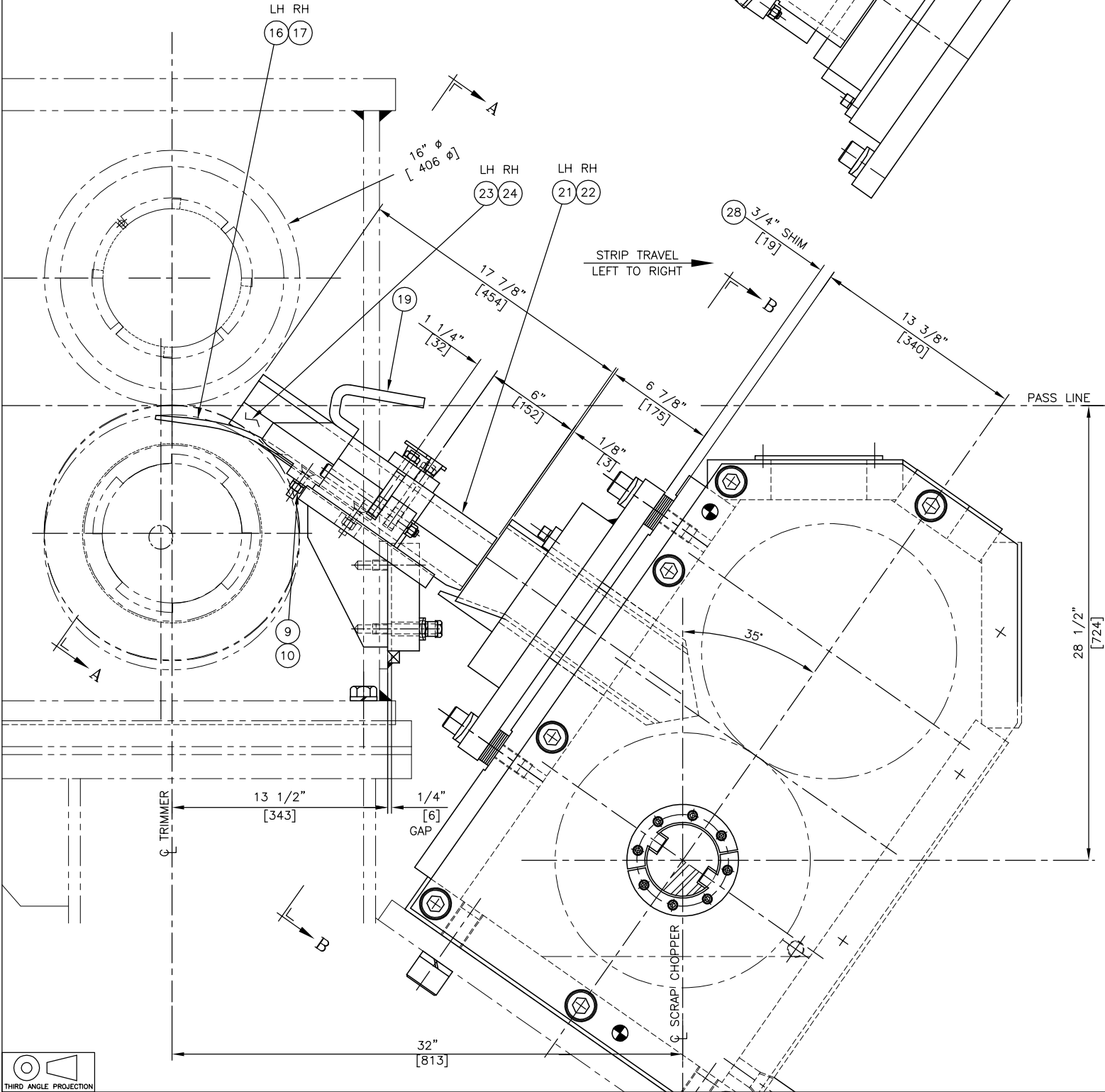
DATE 9-4-14			DATE 6-11-14	TO SCALE	REF. DWG. No.
SCALE 1"=1'-0"			SIZE MACHINE	NUMBER	REV.
1"=1'-0"			D-021	-3947	1

DWG. STATUS		JOB: M834-SC	
REVISED			
DATE: 09-16-14			
© COPYRIGHT 2004 BUTECH INC.			
BUTECH Bliss SALEM, OHIO, USA			
TITLE SCRAP CHOPPER MODEL No. SC400W-1 PLAN VIEW ARRANGEMENT			
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DRAWN	CHECKED	CNC	REF. JOB No.
MT	MT		
DATE	DATE	TO SCALE	REF. DWG. No.
4-4-14	6-11-14		



1) TO ADJUST INSERT ANGLE "Y", REMOVE OR ADD SHIMS TO EITHER FRONT OR BACK POSITIONS.

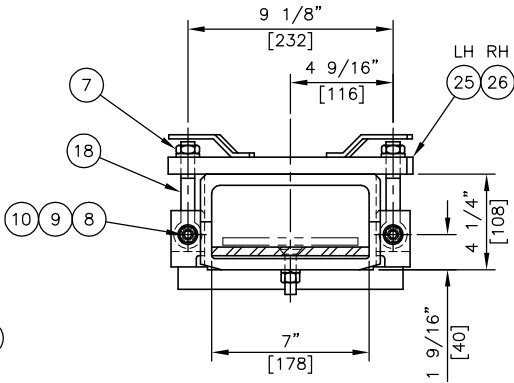
INSERT SHIMMING PROCEDURE



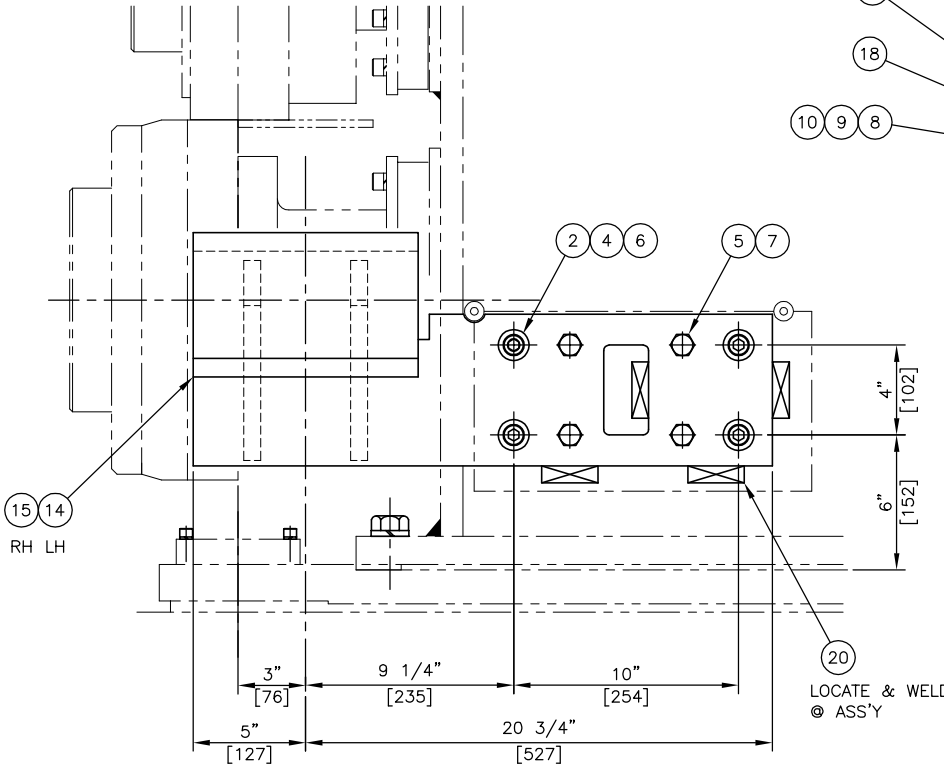
SECTION B-B

ITEM	QTY.	PART
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2	8	201
3	8	200
4	8	200
5	8	200
6	8	200
7	12	200
8	4	200
9	8	200
10	12	200
11	4	200
12	2	D-021
13	2	D-021
14	1	D-021
15	1	D-021
16	1	D-021
17	1	D-021
18	4	R-020
19	2	R-020
20	8	R-000
21	1	R-020
22	1	R-020
23	1	R-020
24	1	R-020
25	1	R-020
26	1	R-020
27	2	R-020
28	4	R-020
29	4	R-020

NOTE: LH ARRANGEMENT IS SHOWN.
RH ARRANGEMENT IS OPP. HAND.



SECTION A-A



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CANADIAN # 1,311,735 & 1,268,533
FRENCH # 2,203,286
GERMAN # 36-36-533
ITALIAN # 1,224,839
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DWG. STATUS JOB: M834-SC

ISSUED FOR CONSTRUCTION

DATE: 06-11-14

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SALEM, OHIO, USA

SCRAP CHOPPER
MODEL No. SC400W-1
ENTRY SCRAP CHUTE ARRANGEMENT

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DRAWN MT CHECKED MT CNC REF. JOB No.

DATE 5-20-14 DATE 6-11-14 TO SCALE REF. DWG. No.

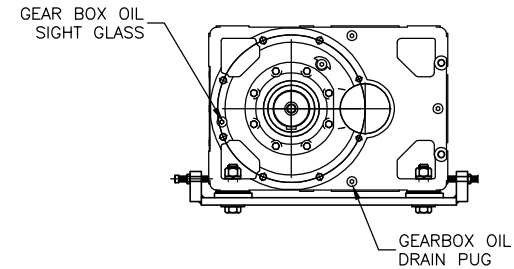
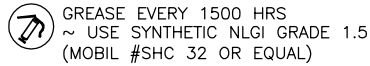
SCALE 3"=1'-0" SIZE MACHINE D-021 - 3948 NUMBER REV. 0

	ALCOA MICROMILL	
PROJECT REFERENCE	2015 EXIT EQUIPMENT UPGRADE	
DRAWING NUMBER	D-107070-SA	

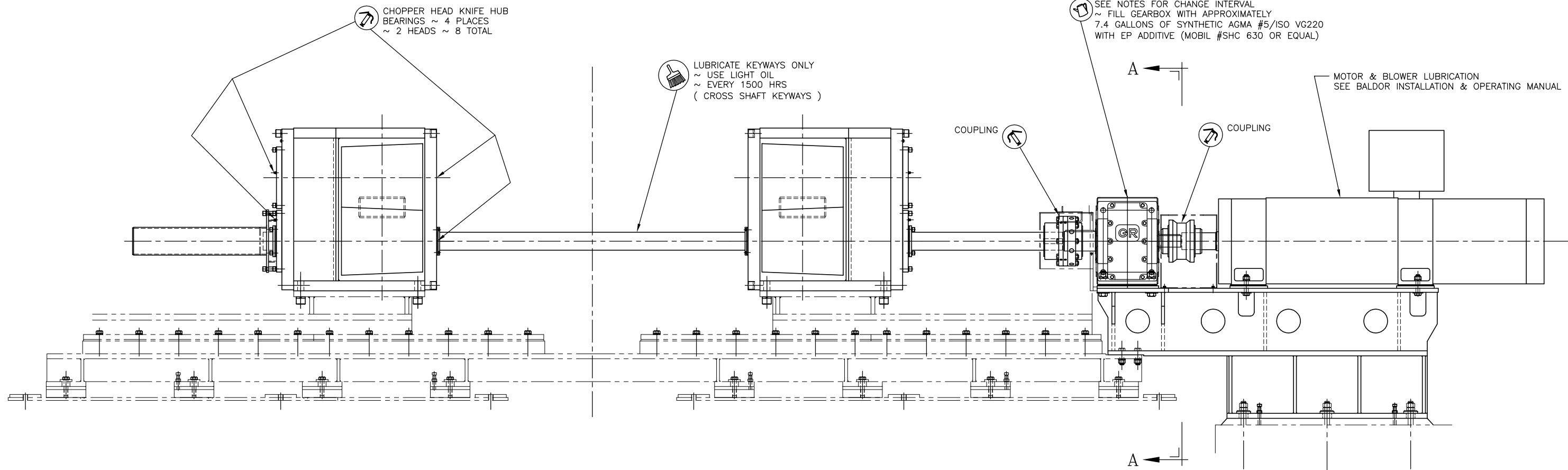
REV.	BY	DATE	DESCRIPTION
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1	MT	06-11-14	ISSUED FOR CONSTRUCTION
2	MT	06-11-14	ISSUED FOR CONSTRUCTION
3	MT	06-11-14	ISSUED FOR CONSTRUCTION
4	MT	06-11-14	ISSUED FOR CONSTRUCTION
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27	MT	06-11-14	ISSUED FOR CONSTRUCTION
28	MT	06-11-14	ISSUED FOR CONSTRUCTION
29	MT	06-11-14	ISSUED FOR CONSTRUCTION

NOTES:

2. ALL POINTS OF GREASE LUBRICATION TO BE PIPED WITH CARBON STEEL TUBING TO COMMON HEADER BLOCKS LOCATED ON EACH SIDE OF THE MACHINE WHEREVER POSSIBLE.
3. CHANGE OIL IN ALL GEARBOXES AFTER THE FIRST 300 HRS OF OPERATION ~ EVERY 2000 HRS THEREAFTER.
4. LUBRICATION COMPATIBILITY DEPENDS UPON THE TYPE OF THICKENER OR SOAP COMPLEX USED, THE BASE OIL, & THE TYPES OF ADDITIVES USED. WE RECOMMEND CHECKING WITH THE LUBRICATION SUPPLIER BEFORE MAKING SUBSTITUTIONS IN BRAND &/OR TYPE IN ORDER TO ASSURE COMPATIBILITY & TO AVOID CAUSING POSSIBLE DAMAGE TO THE EQUIPMENT.



SECTION A-A



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U.S. # 4,825,605	U.S. # 4,268,506	5,433,573	6,742,427
CANADA	1,317,173	1,208,633	
FRANCE	18-16280		
GERMANY	39-10-153		
ITALY	1,224,839		

Reconstruction of a patented product is patent infringement. 0/6/96

				DATE: 06-12-14	
				© COPYRIGHT 2004 BUTECH INC.	
0 MT		6-12-14		ISSUED FOR CONSTRUCTION	
REV. BY		DATE		DESCRIPTION	
		WELDS TO BE CONTINUOUS FILLET & 1/2 OF PLATE THICKNESS UNLESS NOTED OTHERWISE, BASED ON THINNESS PLATE OF THE JOINT			
		DO NOT SCALE ~ WORK TO DIMENSIONS			
		ENGLISH TOLERANCES UNLESS NOTED OTHERWISE			
		X" (FAB/MACH) .X" .XX" .XXX"			
		±1/16" ±.030" ±.010" ±.005"			
		METRIC TOLERANCES UNLESS NOTED OTHERWISE			
		FABRICATION X .X .XX			
		±1.5 mm ±1.0 mm ±.20 mm ±.10 mm			
		ANGULAR ±0°-30° UNLESS NOTED OTHERWISE			
		FINISH SYMBOLS - MICROINCHES			
		16 POLISH		125 SEMI-FINE	
		32 GRIND		250 MEDIUM	
		63 FINE MACHINE		500 ROUGH	
M834-SC		1	D0213944		
JOB	QTY	ARRG'T			

BUTECH Bliss

SALEM, OHIO, USA

TITLE

SCRAP CHOPPER
MODEL No> SC400W-1
LUBRICATION ARRANGEMENT

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DRAWN MT		CHECKED MT		CNC		REF. JOB No.	
DATE 6-12-14		DATE 6-12-14		TO SCALE		REF. DWG. No.	

SCALE 1"=1'-0"	SIZE D-021	MACHINE -	NUMBER 3951	REV. 0
-------------------	---------------	--------------	----------------	-----------

DWG. STATUS		JOB: M834-CV	
REVISED			
DATE: 29-29-14			
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BUTECH Bliss SALEM, OHIO, USA			
TITLE			
SCRAP CHOPPER MODEL NO. SC400W-1 SCRAP CONVEYOR ARRANGEMENT			
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DRAWN MT	CHECKED MT	CNC	REF. JOB NO.
DATE 2-11-4	DATE 6-11-14	TO SCALE	REF. DWG. NO.
SCALE 3/8"=1'-0"	SIZE MACHINE D - 021	NUMBER - 3952	REV. 1.