

F

E

D

C

B

A

F

E

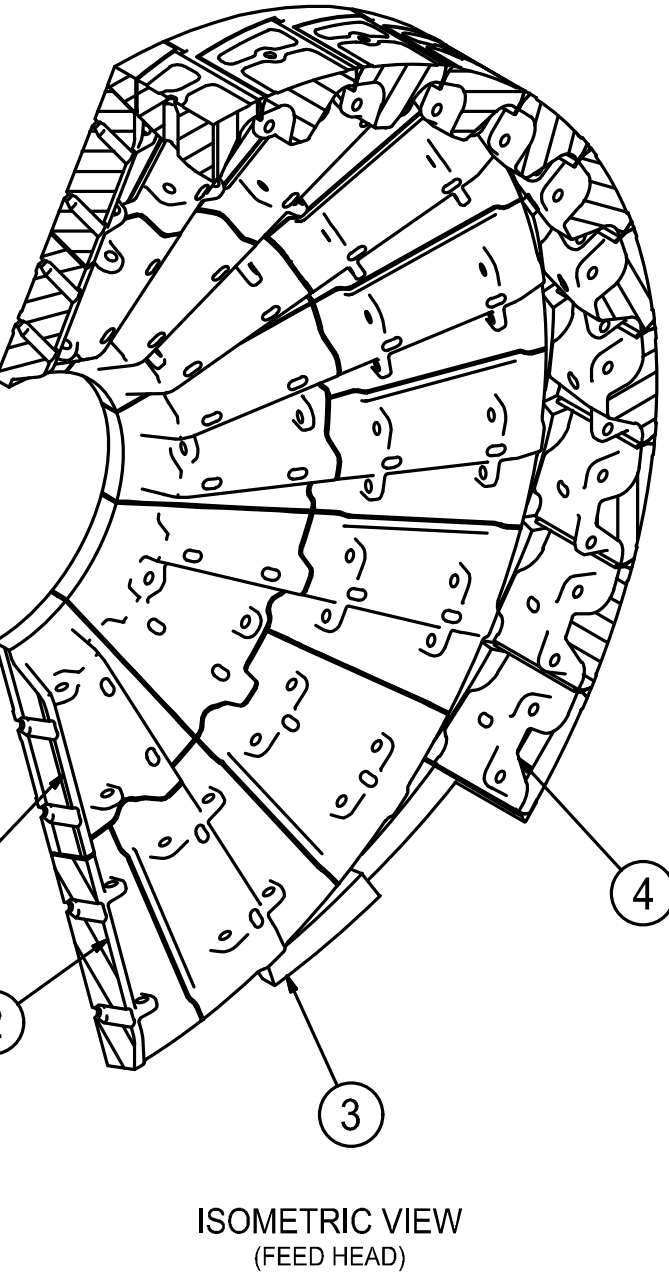
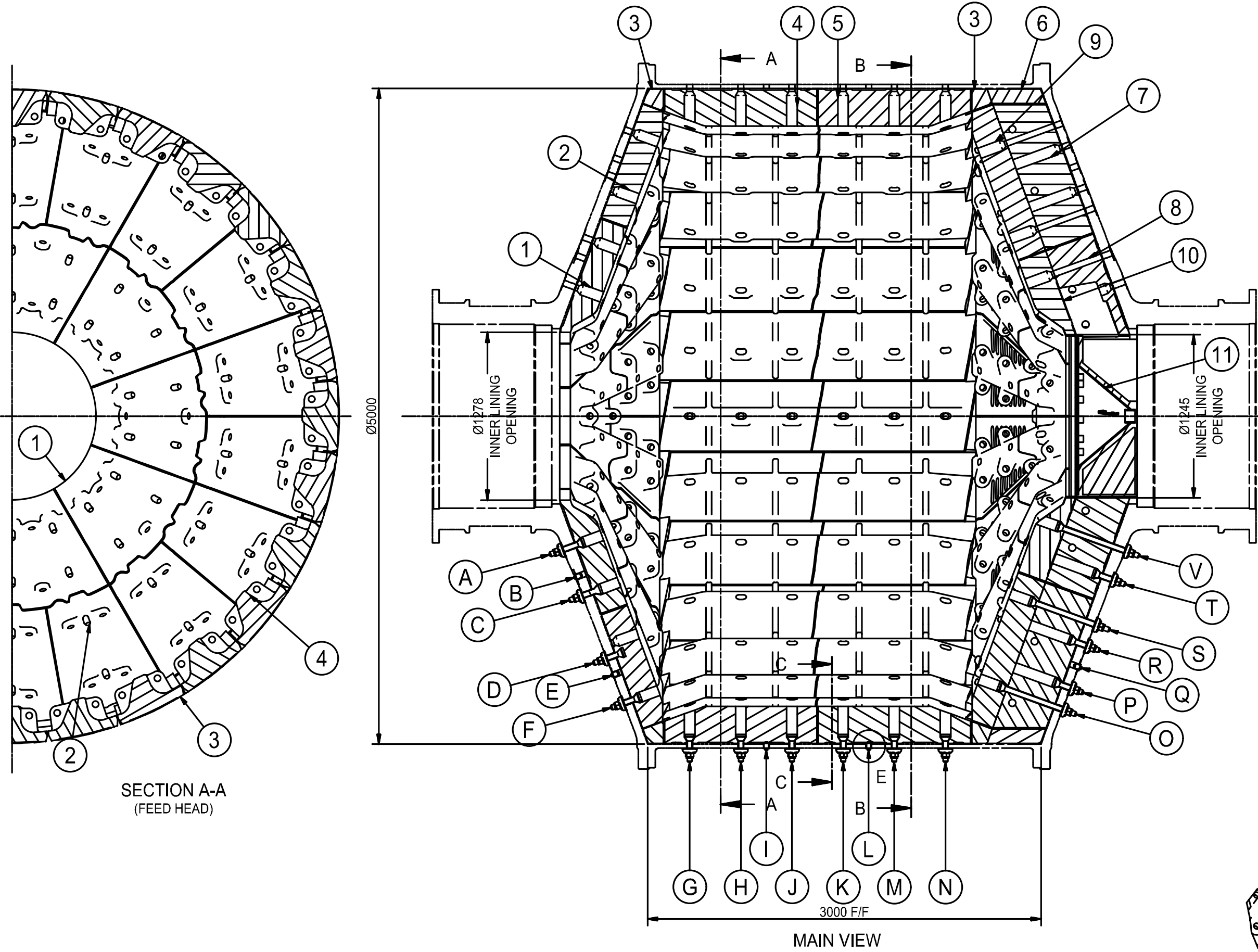
D

C

B

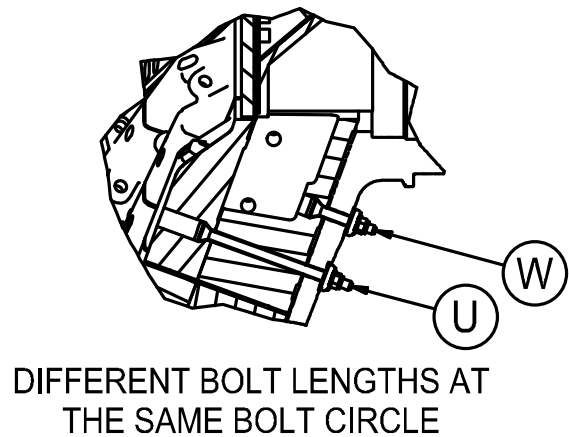
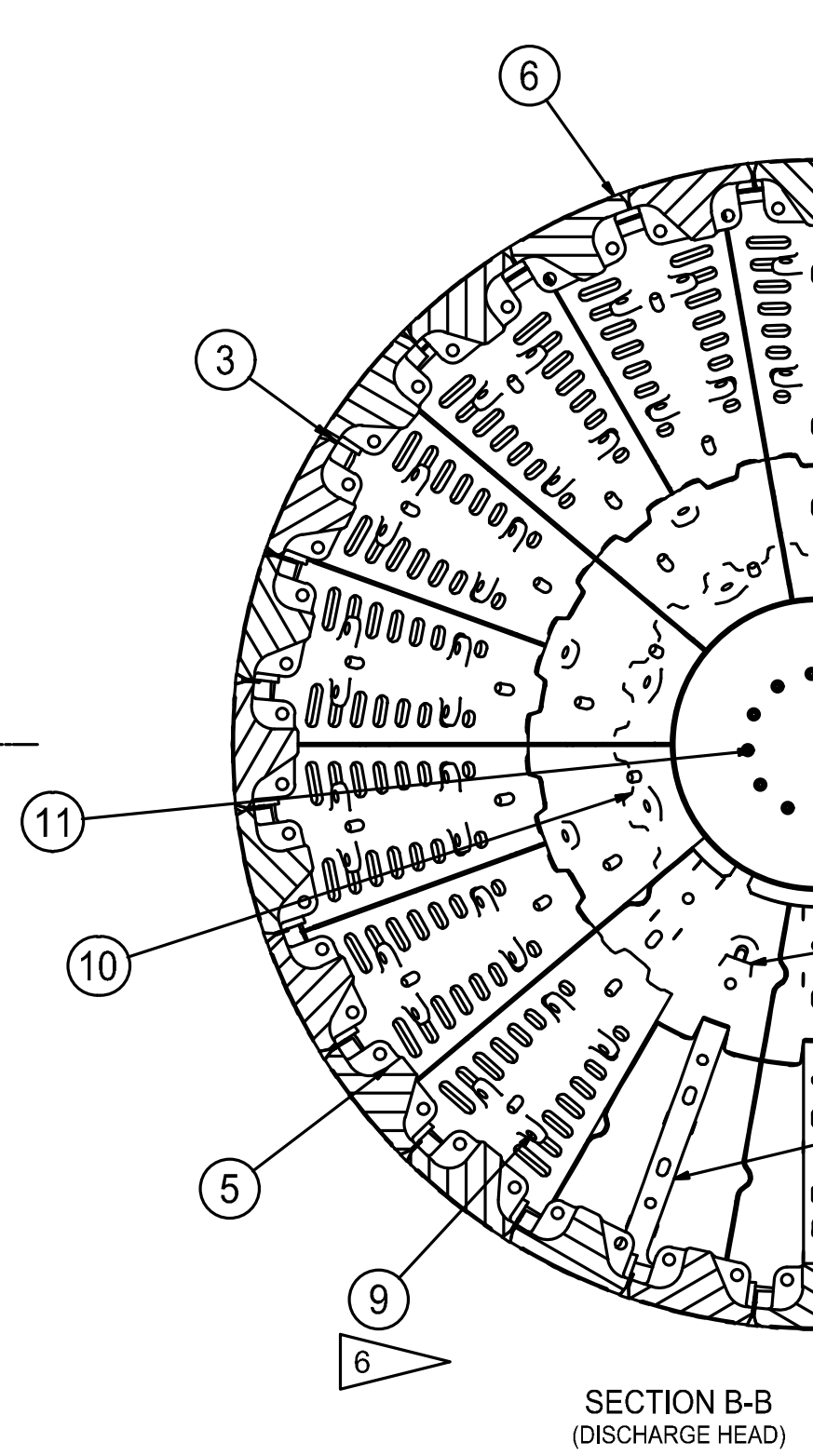
A

REV	DESCRIPTION OF REVISION	BY	DATE
0	INITIAL RELEASE	sormoraor	29-nov-2021

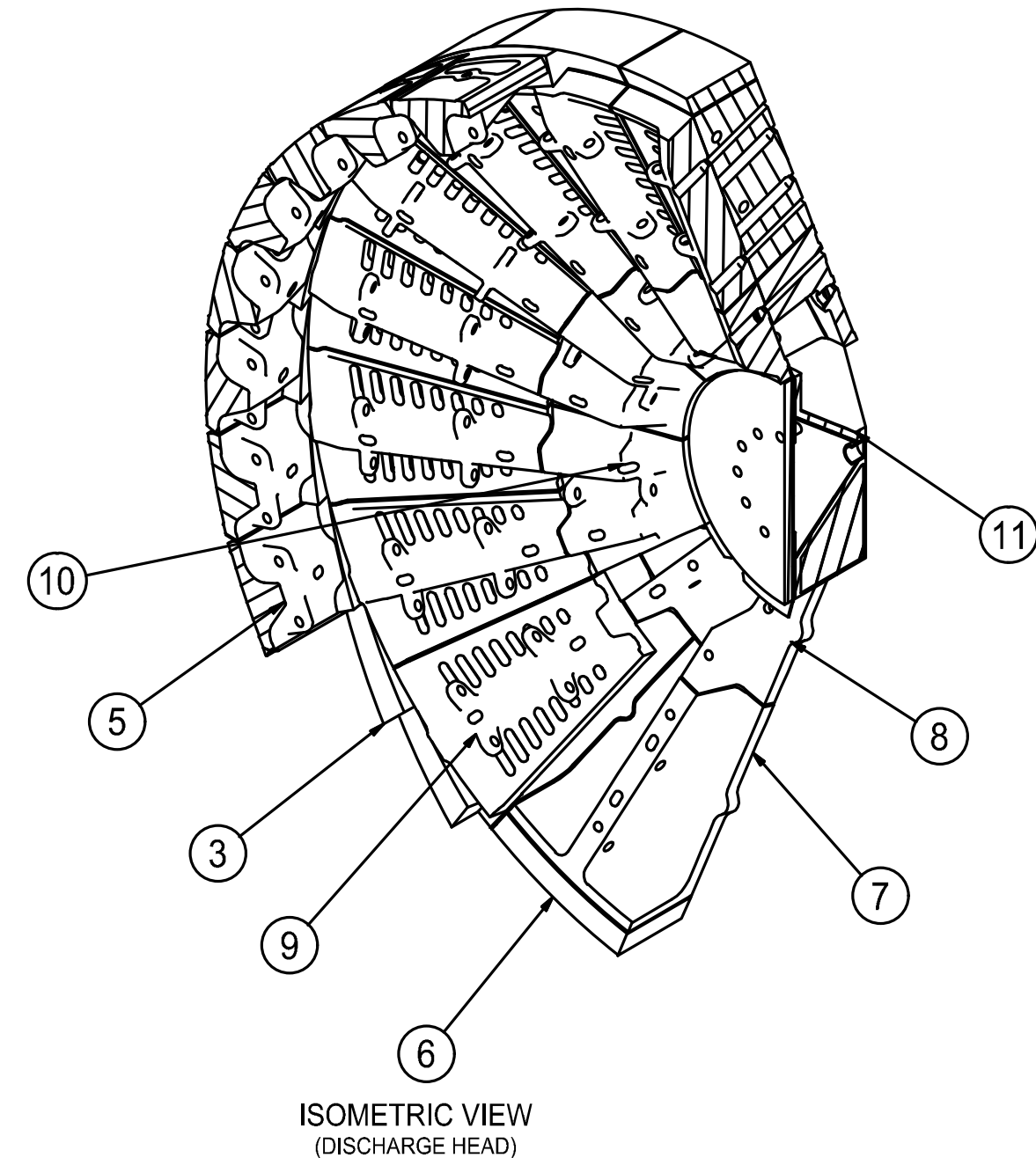


NOTES:

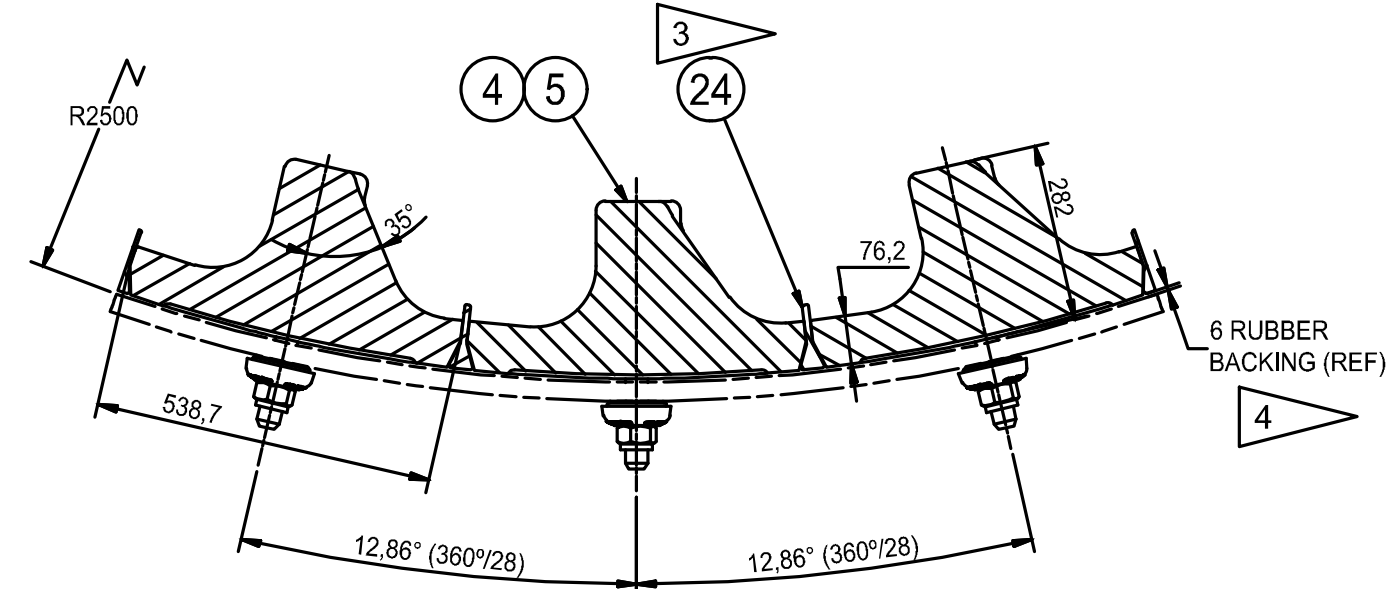
- 1 KNOCK-OUT HOLES ARE Ø44mm
- 2 DIMENSIONS ARE IN MILLIMETERS, EXCEPT OTHERWISE NOTED.
- 3 RUBBER INSERT MUST BE USED BETWEEN SHELL LINERS
- 4 RUBBER BACKING MUST BE USED. SHOULD BE REPAIRED DURING INSTALLATION, IF NECESSARY, TO AVOID SHELL LINERS SEATING FAILURE AND PREVENTING THEIR BREAKAGE
- 5 LINERS BOLTS MUST BE KEPT TIGHT TO PREVENT PULP LEAKAGE. LOOSE BOLT MAY CAUSE SHELL HOLE ELONGATION AND FAILURE. TORQUE FOR M36: 1400 - 1680 N.m. ALL BOLTS SHOULD BE RETORQUED AFTER 48 - 120 HOURS OF OPERATION
- 6 DISCHARGE GRATE INFORMATION: THE TOTAL AREA IS 88850,23cm² (9,18%)
- 7 ALL LINER SHOULD BE INSTALLED KEEPING EQUAL GAPS
- 8 RECOMMENDED TO ORDER 5% OF EXTRA FIXINGS. ITEMS FROM 12 TO 24. WHEN 5% REPRESENTS LESS THAN 1, ACQUIRE 1 UNIT.



DIFFERENT BOLT LENGTHS AT THE SAME BOLT CIRCLE

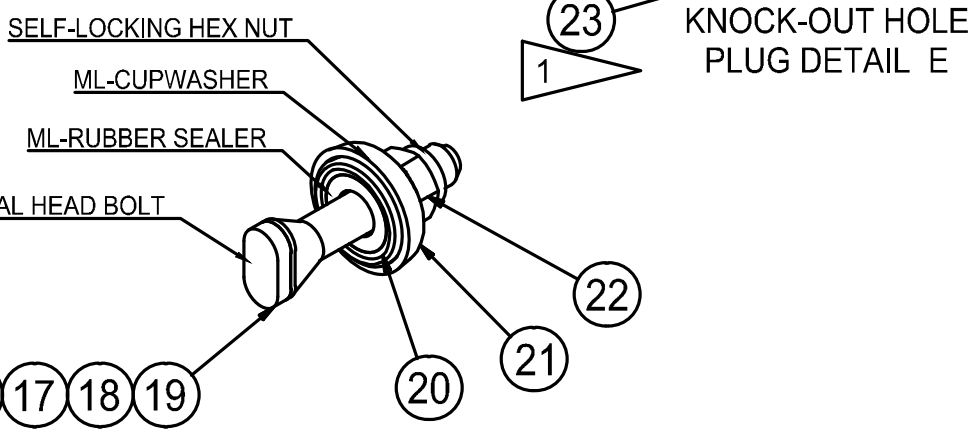


ITEM	QTY	BASE UNIT	PART NUMBER	DESCRIPTION	TECH. DESCRIPTION	MATERIAL	UNIT WEIGHT	TOTAL WEIGHT
1	9	Each	MM1664392	HEAD LINER DOUBLE METALLIC		8CD	586,2 kg	
2	18	Each	MM1664396	HEAD LINER METALLIC		8CD	534,2 kg	
3	28	Each	MM1664398	FILLING SEGMENT METALLIC		8CD	165,5 kg	
4	28	Each	MM1664400	SHELL LINER METALLIC		8CD	694 kg	
5	28	Each	MM1659150	SHELL LINER METALLIC		8CD	694,4 kg	
6	18	Each	MM1664402	SUPPORT SEGMENT		6160002	41,1 kg	
7	18	Each	MM1664404	DISCHARGER OUTER METALLIC		8CD	812 kg	
8	9	Each	MM1664406	DISCHARGER INNER METALLIC		8CD	637,9 kg	
9	18	Each	MM1664403	GRATE LINER METALLIC		8CD	616,1 kg	
10	9	Each	MM1664407	HEAD LINER DOUBLE METALLIC		8CD	416,6 kg	
11	1	Each	MM1671493	DISCHARGE CONE RU			407,1 kg	
12	168	Each	ML-217583-003	OVAL HEAD BOLT	1.5"/M36X190/125-8.8-X-UNPLTD	ISO 8.8	2,1 kg	
13	36	Each	ML-217583-006	OVAL HEAD BOLT	1.5"/M36X190/125-8.8-X-UNPLTD	ISO 8.8	2,3 kg	
14	36	Each	ML-217583-007	OVAL HEAD BOLT	1.5"/M36X200/125-8.8-X-UNPLTD	ISO 8.8	2,4 kg	
15	27	Each	ML-217583-008	OVAL HEAD BOLT	1.5"/M36X210/125-8.8-X-UNPLTD	ISO 8.8	2,5 kg	
16	27	Each	ML-217583-010	OVAL HEAD BOLT	1.5"/M36X230/125-8.8-X-UNPLTD	ISO 8.8	2,7 kg	
17	18	Each	ML-217583-029	OVAL HEAD BOLT	1.5"/M36X580/160-8.8-X-UNPLTD	ISO 8.8	5,6 kg	
18	27	Each	ML-217583-030	OVAL HEAD BOLT	1.5"/M36X600/160-8.8-X-UNPLTD	ISO 8.8	5,6 kg	
19	9	Each	ML-217583-031	OVAL HEAD BOLT	1.5"/M36X620/160-8.8-X-UNPLTD	ISO 8.8	5,8 kg	
20	348	Each	M36-161103	RUBBER SEALER	90/36-13 REINFORCED		0,2 kg	
21	348	Each	217327	CUP WASHER	110/9040-31	27MnC/B5-2	1,1 kg	
22	348	Each	704203927360	NUT, HEXAGONAL, TORQUE	ISO7040-M36-8-A3A	Steel	0,5 kg	
23	110	Each	ML-251894	PLUG TEX	TEX3-37T045		0,2 kg	
24	56	Each	ZX11366305	RUBBER BEADING	INSERT 10MM	SHORE 60	2,3 kg	



SECTION C-C
(SHELL LINERS DETAIL)
Average Thickness = 141.5mm

CCW ROTATION MILL
(VIEWED FROM FEED END)



FIXINGS FOR
METALLIC LINERS (M36)

BOLT LOCATION	ITEM	PART NUMBER	DESCRIPTION	BOLT LENGTH (mm)	QTY. FOR LOCATION
A	16	ML-217583-010	ML-OVBOLT 1.5"/M36X230/125-8.8-X-UNPLT@	230	18
B	23	ML-251894	ML-TEXPLUG TEX3-37T045	-	18
C	15	ML-217583-008	ML-OVBOLT 1.5"/M36X210/125-8.8-X-UNPLT@	210	18
D	14	ML-217583-007	ML-OVBOLT 1.5"/M36X200/125-8.8-X-UNPLT@	200	18
E	23	ML-251894	ML-TEXPLUG TEX3-37T045	-	18
F	13	ML-217583-006	ML-OVBOLT 1.5"/M36X190/125-8.8-X-UNPLT@	190	18
G	12	ML-217583-003	ML-OVBOLT 1.5"/M36X160/125-8.8-X-UNPLT@	160	28
H	12	ML-217583-003	ML-OVBOLT 1.5"/M36X160/125-8.8-X-UNPLT@	160	28
I	23	ML-251894	ML-TEXPLUG TEX3-37T045	-	28
J	12	ML-217583-003	ML-OVBOLT 1.5"/M36X160/125-8.8-X-UNPLT@	160	28
K	12	ML-217583-003	ML-OVBOLT 1.5"/M36X160/125-8.8-X-UNPLT@	160	28
L	23	ML-251894	ML-TEXPLUG TEX3-37T045	-	28
M	12	ML-217583-003	ML-OVBOLT 1.5"/M36X160/125-8.8-X-UNPLT@	160	28
N	23	ML-251894	ML-TEXPLUG TEX3-37T045	-	28
O	17	ML-217583-029	ML-OVBOLT 1.5"/M36X580/160-8.8-X-UNPLT@	580	18
P	13	ML-217583-006	ML-OVBOLT 1.5"/M36X190/125-8.8-X-UNPLT@	190	18
Q	23	ML-251894	ML-TEXPLUG TEX3-37T045	-	18
R	14	ML-217583-007	ML-OVBOLT 1.5"/M36X200/125-8.8-X-UNPLT@	200	18
S	18	ML-217583-030	ML-OVBOLT 1.5"/M36X600/160-8.8-X-UNPLT@	600	18
T	15	ML-217583-008	ML-OVBOLT 1.5"/M36X210/125-8.8-X-UNPLT@	210	9
U	18	ML-217583-030	ML-OVBOLT 1.5"/M36X600/160-8.8-X-UNPLT@	600	9
V	19	ML-217583-031	ML-OVBOLT 1.5"/M36X620/160-8.8-X-UNPLT@	620	9
W	16	ML-217583-010	ML-OVBOLT 1.5"/M36X230/125-8.8-X-UNPLT@	230	9

WEIGHT: 95489,7 kg	SCALE: 1:25	DATE: 29-nov-2021	PROJECT NO.: GMM-2021-255	EQUIPMENT NO.: MM1679153	FORMING DESCRIPTION: MILL LINING ASSEMBLY	SAG MILL Ø5.00 m x 2.50 m EGL	REV: 0	RESTRICTED	A1	11
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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, ANGLES ARE IN DEGREES AND MINUTES, AND TOLERANCES ARE PER TABLE BELOW.

FABRICATION AND CASTING DIMENSIONS X ₁ = ± 6 X ₂ = ± 3 XX = ± 1.5 ANGULAR = ± 2 DEGREES CHAMFER = ± 4 DEGREES	MACHINING DIMENSIONS X ₁ = ± 1.5 X ₂ = ± 0.7 XX = ± 0.38 ANGULAR = ± 0°-15' MACHINE SURFACE FINISH 6.3 Ra - UNLESS NOTED
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DO NOT SCALE



01 INITIAL RELEASE

REV DESCRIPTION OF REVISION

KXR KXR 2021-11-30

BY APPD DATE

Metso:Outotec

Metso Outotec USA Inc.
Grinding Systems
2715 Pleasant Valley Rd., P.O.Box 15043
York, PA 17405-7043 USA

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TITLE
MILL LINING ASSEMBLY
5.00m X 2.50m EGL SAG MILL

DRN: KXR

DATE: 2021-11-30

CKD: KXR

DATE: 2021-11-30

APPD: KXR

DATE: 2021-11-30

MATERIAL No: ZX11935550

MATERIAL Spec: 0.00

SCALE: 1:30

ISO DRAWING NO

SHEET 1 OF 1

SERIAL No.

EQUIPMENT No.

CLASSIFICATION:RESTRICTED