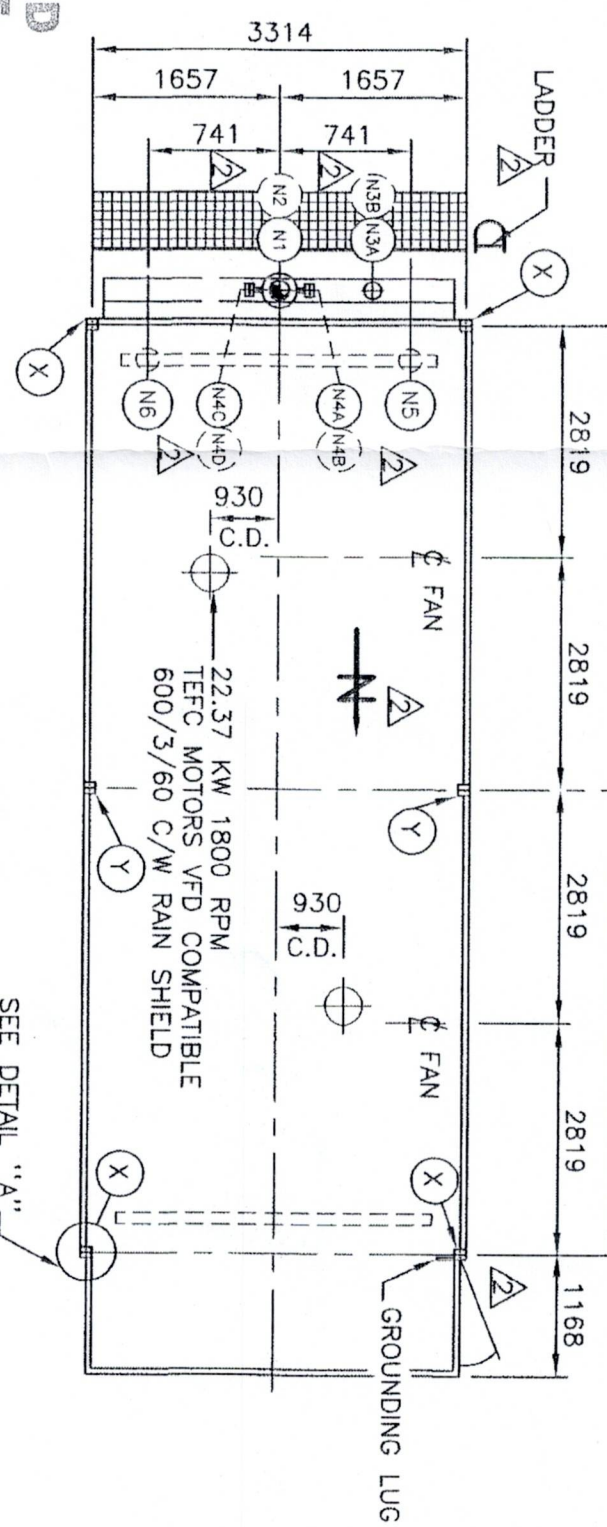
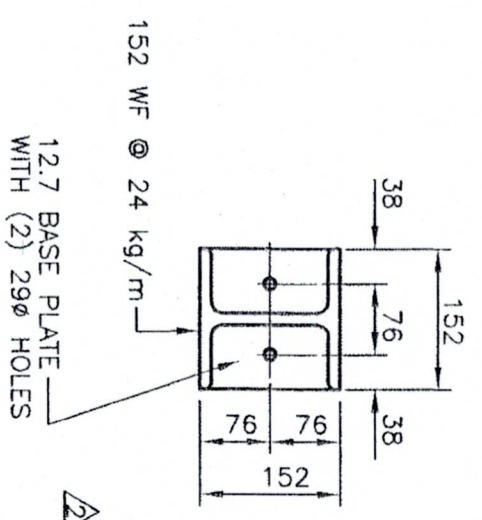
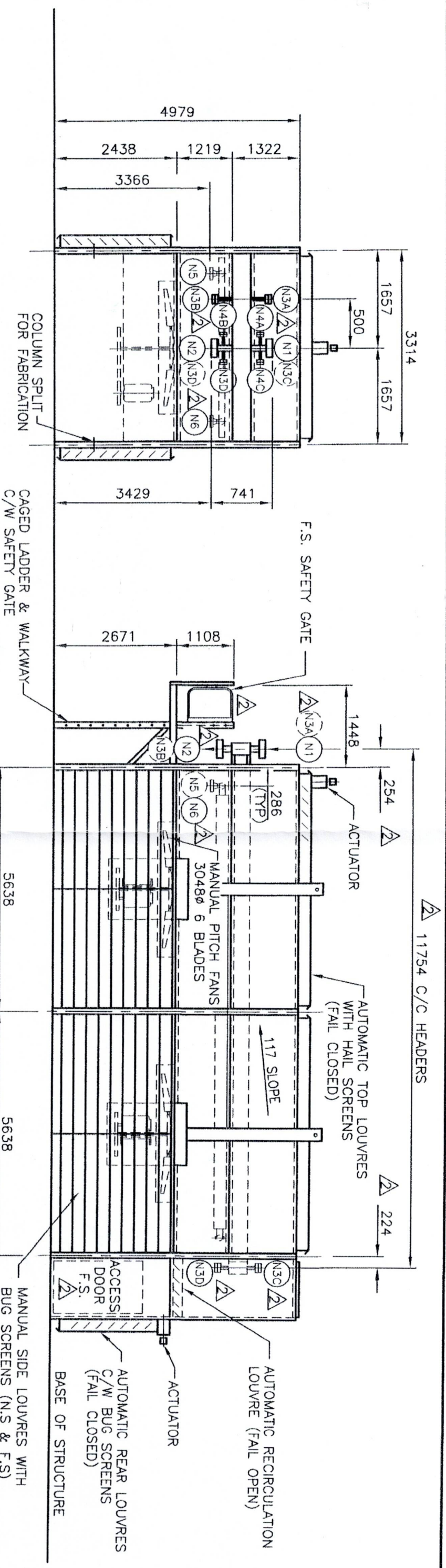




NOZZLE SCHEDULE					
MARK	SIZE	RATING	TYPE	SCH.	SERVICE
N1	4"	CL.150	RFWN	160	INLETS
N2	4"	CL.150	RFWN	160	OUTLETS
N3A-N3D	2"	CL.150	RFLWN	STD	VENT/DRAIN C/W BLIND
N4A/N4B	2"	CL.150	RFLWN	STD	PI CONNECTIONS
N4C/N4D	2"	CL.150	RFLWN	STD	TI CONNECTIONS
N5	2"	CL.150	RFWN	STD	HEATING COIL INLET
N6	2"	CL.150	RFWN	STD	HEATING COIL OUTLET

PLAN VIEW

- REVISION CONTROL BOX Ⓞ Denotes DCR & Rev.# Added to This Sheet Only
- 1 PER CUST REQUEST (REDESIGN) OCT 7/2008 (BG)
 - 2 PER CUST REQUEST DEC 4/2008 (RL)
 - 3 PER CUST REQUEST APRIL 13/2009 (RL)
 - 4 PER CUST/EI JUN 2/2009 DCR NI-014829 (RL) Ⓞ
 - 5 PER EI JUN 11/2009 DCR A-014860 (RL) Ⓞ
 - 6 PER E.I. AUG 25/09 (RL) DCR-C-014941 Ⓞ

This drawing is the property of Exchanger Industries and shall not be used in any way detrimental to Exchanger Industries nor shall be copied, lent or used for any purpose other than that intended.

DIMENSIONAL OUTLINE & ANCHOR BOLT PLAN	
CUSTOMER: DPH FOCUS CORP	
P.O. : FCSR-DPH-4001C	
FOR: ENCANA FCCL OIL SANDS LTD.	
PLANT: FOSTER CREEK	
SERVICE: LEAN AGE COOLER	
ITEM: E-5888	NO. REQ'D (1) BAY
DWN SF CKD BG	DWG NO. 08-5062
SHEET 1 OF 39	

EXCHANGER INDUSTRIES
CALGARY, ALBERTA

MATERIAL LIST FOR (1) ONE SECTION ONLY				GENERAL NOTES	
MARK	QUAN'T	DESCRIPTION	MATERIAL	1) LEVEL FLANGES FROM TUBE SIDE.	
1	4	TUBE AND PLUG SHEETS 25.4 x 227 x 3004	SA-516-70N & I.T.	2) DRILL AND REAM TUBE SHEET HOLES TO 25.64 ±0.05 DIA WITH 200 FINISH	
2	4	WRAPPER PLATES 15.8 x 172 x 3004	SA-516-70N & I.T.	3) DRILL AND TAP PLUG SHEETS FOR 29 x 12 NF. SHOULDER TYPE PLUG	
3	4	END PLATES 15.8 x 172 x 189	SA-516-70N & I.T.	4) ROLL TUBES 22 DEEP IN TUBE SHEET	
4	1	STAY PLATE 19 x 175 x 2969	SA-516-70N & I.T.	5) SPOT FACE PLUG HOLES 36 DIA FOR GASKET SEATING	
5	4	STAY PLATE 19 x 175 x AS SHOWN	SA-516-70N & I.T.	6) FULL PENETRATION WELDS ON ALL WRAPPER, END & STAY PLATES	
6	2	4-CL150 RFWN FLG SCH 160	SA-350-LF2 CL1	7) STRESS RELIEVE 1 HOUR AT 621°C - 635°C	
7	2	4 SCH 160 (13.49 THK) x 181 LG	SA-333-6	8) N.D.E. EXAMINATION: a) MPI ALL BEVELED EDGES OF TUBESHEETS, PLUG SHEETS, ACROSS WRAPPER ENDS & NOZZLE CUTOUTS.	
8	8	2-CL150 RFLWN FLG (13.35 THK) x 229 L.G. C/W BLINDS	SA-350-LF2 CL1	b) FULL UT FOR HEADER BOX WELDS	
				c) FULL MPI ON ALL CAT. "D" NOZZLE WELDS	
				d) FULL VISUAL TEST AT LEAST TWO CAT. "D" NOZZLE WELDS	
				e) VISUAL TEST ALL NON-PRESSURE ATTACHMENTS	
				f) MPI LIFTING LUGS	
				g) MPI EXPOSED CUT EDGES ON TUBESHEETS AND PLUG SHEETS AFTER WELDING.	
				h) FULL VT & UT HEADER BOX BUTT WELDS	
	194	25.4 OD x 14 BWG M/W x 11582 LG	SA-179	9) BOTH INLET & OUTLET NOZZLE EACH TO HAVE (2) 2-#150 FLANGED CONNECTIONS	
		STEEL TUBES WITH 15.8 HIGH "L" TYPE		10) ALL PLUG SHEETS TO BE TAPPED 25 DEEP.	
		ALUMINUM FIN 60.3Ø ZINC BLOCKS STAPLE ENDS		11) ALL BOLT HOLES TO STRADDLE NORMAL CENTER LINES	
	388	STEEL SHOULDER PLUGS 29 Ø x 25 LONG U.H.	SA-350-LF2 CL1	12) CODES: ASME SECTION VIII DIV. 1, 2007 EDITION, APPENDIX 13, API 661, INSPECTION PER UG-93, TUBES IMPACT EXEMPT BY UCS-66(d). IMPACT TEST PER UG-84 (NO PRODUCTION TEST PLATE REQ'D) PLATE TO BE IMPACT TESTED @ -45 °C 27/20 JOULES, LOW TEMP PIPE/FLANGES EXEMPT BY UCS-66(g); WELD METAL EXEMPT PER UCS 67(o)(2)	
	388	STEEL GASKETS	C1010/20	13) CODE STAMP REQ'D: YES (PROVINCE OF ALBERTA)	
	32/64	15.88Ø STUDS x 83 LONG / 15.88Ø NUTS	SA-193-B7M/SA-194-2HM		
	8	2-CL150 ANSI STYLE C.G. SPIRAL WOUND STAINLESS STEEL GASKET			
WELDING NOTES: (PREHEAT 15°C)				DESIGN CONDITIONS	
LONG SEAMS C6				ITEM NUMBER E-5888	
END PLATES C6				PROCESS DESIGN PRESSURE 690 KPAG & FV @ 149 °C	
NOZZLE FLG TO PIPE C6				MAWP N/C=1965 KPog; H/C=917 KPog	
STAY PLATE TO END PLATE & TUBE/PLUG SHEET C3				HYDRO TEST PRESSURE 2555 KPog (SHOP); 1192 KPog (FIELD)	
NOZZLE NECK TO WRAPPER/PIPE C6				DESIGN TEMPERATURE 149 °C	
NOTE: FCAW ALLOWED ON STAY PLATES ONLY.				MDMT -45 °C	
MATERIAL NOTES				CORROSION ALLOWANCE 6.401 mm	
THIS UNIT IS IN SOUR SERVICE, CLASS 2, ALL MATERIAS IN CONTACT WITH PROCESS FLUID SHALL BE FULLY KILLED AND MEET NACE MR 0175 LOW CARBON STEEL. WHEN THESE COMPONENTS ARE INTENDED FOR WELDING, THEY SHALL ALSO MEET THE FOLLOWING PROPERTIES:				NUMBER OF PASSES SIX	
WHEN TRACE ELEMENTS ARE SHOWN ON THE MATERIAL TEST REPORT(MTR), THE CARBON EQUIVALENT (CE) SHALL BE LESS THAN OR EQUAL TO 0.45%. THE CE IS DEFINED AS FOLLOWS:				BARE SURFACE /SECTION 176.2 SQ M	
CE = %C + %Mn/6 + (%Cr + %Mo + %V)/5 + (%Ni + %Cu)/15				SECTION WEIGHT / SECTION 7316 KGS	
REVISIONS				CU m CAPACITY/SECTION HEADERS = 0.12 TUBES = 0.79	
PER CUST/EI APRIL 13/2009 (RL)				MATERIALS & DESIGN CONDITIONS	
				EXCHANGER INDUSTRIES	
				CALGARY, ALBERTA	
				DWG NO. 08-5062	
				SHEET 3 OF 39	

CERTIFIED BY
EXCHANGER INDUSTRIES
A DIVISION OF PREMOTALCO INC.
CALGARY, ALBERTA, CANADA

	MAWP: —	PSI	AT	—	°F
	MAWP:  917	KPA	AT	149	°C
W	MAEWP: —	PSI	AT	—	°F
RT1	MAEWP: 103	KPA	AT	149	°C
HT	MDMT: —	°F	AT	—	PSI
	MDMT: —45	°C	AT	 917	KPA

SERIAL NO. 08-5062 YEAR MFD. 2009

LEAN AGE COOLER

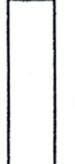
P.O.: FCSR-DPH-4001C

ITEM NO.: E-5888; MODEL NO.: 194BL4 38 6

SECTION CAPACITY/WEIGHT: 0.91 CU. M. / 7316 KGS

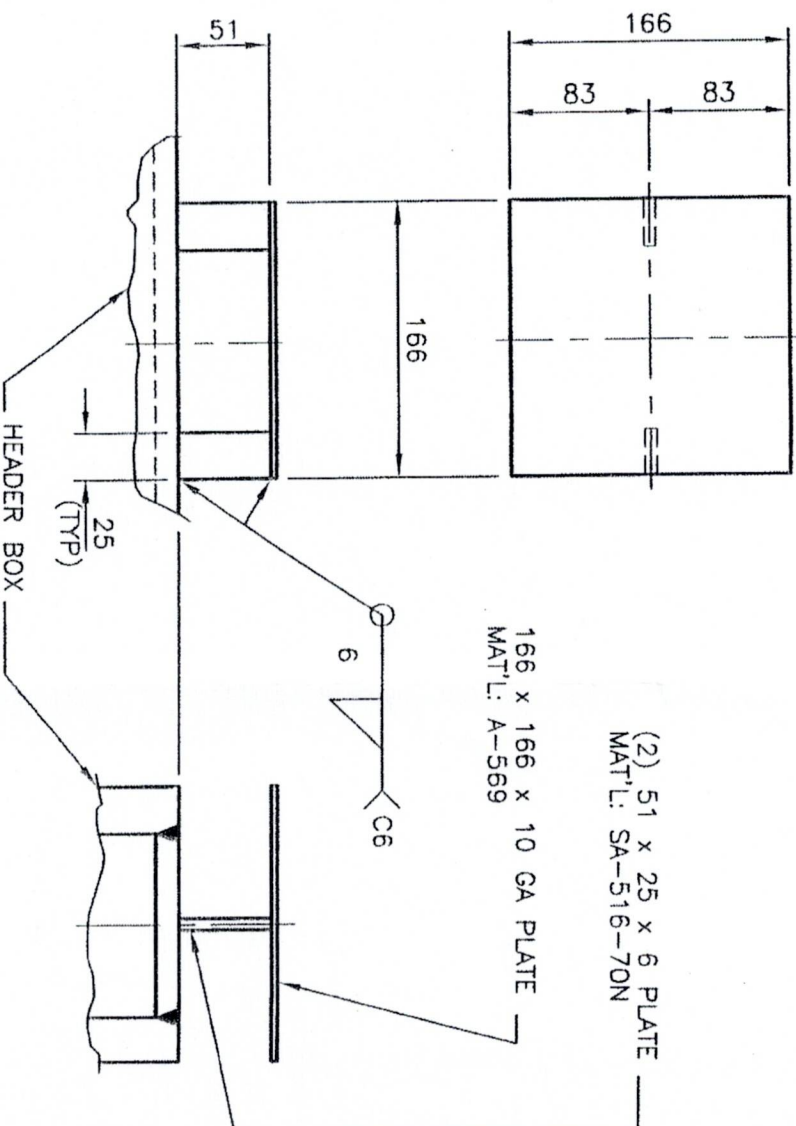
BARE TUBE/FINNED SURFACE AREA: 176.2/3728.4 SQ. M

FIELD HYDROTEST PRESSURE: 1192 KPA; C.A.=6.401mm

PROV. REG.  CRN 

NAME PLATE DETAIL

0.8 x 152 x 152
MAT'L: STAINLESS STEEL



NAME PLATE BRACKET DETAIL

09115.2

JUN 22 2009

REVISIONS

 PER CUST JUN 2/2009 DCR NI-014829(RL)

NAME PLATE DETAIL

ONE REQ'D EACH SECTION
NO. OF SECTIONS REQ'D ONE



EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWN RL CKD BG

DWG NO. 08-5062
SHEET 4 OF 39

GENERAL CONSTRUCTION NOTES

- (1) ALL COLUMNS TO HAVE 25 Ø ANCHOR BOLTS WITH 76 THREAD PROJECTION ABOVE BASE OF STRUCTURE
- (2) MAIN STRUCTURE TO BE OF WELDED CONSTRUCTION
- 3) STRUCTURE TO BE FITTED WITH BUG & HAIL SCREENS
- (4) (2) ACTUATORS- FISHER TYPE 656 SIZE 30 C/W DVC6010 C/W HART

Δ

(3-15 PSIG INPUT AND 6-30 PSIG OUTPUT)

Δ
- (5) (2) ONLY VIBRATION TRANSMITTERS - METRIX ST5484E-123-020-00 & CSA APPROVED,

Δ

INSTALLED FOR SHIPPING
- (6) PAINT: STRUCTURE, INCLUDE WALKWAY, HANDRAILS, LADDER, CAGES
- (a) COMMERCIAL SANDBLAST TO SSPC-SP6
- (b) ONE COAT CLOVADALE RUSTEX 71024 ALKYD 1.5-2 MIL DFT
- (c) TWO COATS CLOVADALE INDUSTRIAL ENAMEL 7400, 1.5-3 MIL DFT PER COAT; COLOR AS FOLLOWS:
FOR STRUCTURE (EXCEPT FOR HANDRAILS,KICKPLATES & LADDERS): ICSS #423 WARM GREY;
FOR HANDRAILS,KICKPLATES & LADDERS: SAFETY YELLOW 13591

Δ
- Δ

 HEADER BOXES & HEATING COIL HEADERS
- (a) NEAR WHITE BLAST TO SSPC-SP10
- (b) ONE COAT CLOVADALE CLOVA ZINC 3, 2-3 MILS DFT
- (c) TWO COATS CLOVADALE 83206, 1.5-2 MIL DFT PER COAT, ICSS #423 WARM GREY
- NOTE: 1) ALL EXTERIOR JOINTS TO BE CAULKED AFTER SANDBLASTING & BEFORE PAINTING.
2) WALKWAY GRATING TO BE GALVANIZED.
- (7) N.D.E. EXAMINATION o) MPI ALL BEVELED EDGES OF TUBESHEETS, PLUG SHEETS, ACROSS WRAPPERENDS, AND NOZZLE CUT OUTS.
- b) FULL UT FOR HEADER BOX WELDS
- c) FULL UT AT LEAST TWO CAT. "D" NOZZLE WELDS FOR NPS >= 4" &

Δ
- Δ

 FULL MT AT LEAST TWO CAT. "D" NOZZLE WELDS FOR NPS < 4"
- d) FULL VISUAL TEST ON ALL CAT. "D" NOZZLE WELDS

Δ
- e) VISUAL TEST ALL NON-PRESSURE ATTACHMENTS
- f) MPI LIFTING LUGS
- g) MPI EXPOSED CUT EDGES ON TUBESHEETS AND PLUG SHEETS AFTER WELDING.

Δ
- Δ

 h) FULL VT & UT HEADER BOX BUTT WELDS
- (8) FABRICATION TOLERANCES TO API 661.

Δ
- (9) BAY TO BE SHIPPED: FULLY ASSEMBLED WITH THE FOLLOWING SHIPPING LOOSE: LADDER, ACTUATORS,, SIDE &

Δ
- Δ

 REAR LOUVRES. SHIP LOOSED ITEMS TO BE PROPERLY LABELED WITH P.O. # & TAG #

Δ
- (10) (2) THERMO KINETICS AVERAGING RTD. MODEL# RA91-D100A3-250-YG1.5-KI-EX. 3 WIRE 100 OHM PLATINUM RTD.

Δ

6 OD 316SS PROBE 6350 LG, 12.7 NPT PROCESS CONNECTION, C/W HONEYWELL ST25H TRANSMITTER WITH DIGITAL DISPLAY HART PROTOCOL & ALUMINUM EXPLOSION PROOF TERMINATION HEAD RATED FOR CLASS 1, DIV 1, GROUP C&D

Δ
- Δ

 AFTER FABRICATION, STENCIL "NO WELDING ALLOWED" IN LARGE WHITE LETTER ON HEADERS.

Δ
- (12) SHIP ONE COPY OF QC'S WRAP-UP BOOK WITH THE UNIT

Δ
- (13) ALL EXPOSED FLANGE GASKET SURFACES SHALL BE COATED WITH RUST PREVENTIVE RUST VETO 344 & PROTECTED WITH 12.7 mm THK PLYWOOD.

Δ

CERTIFIED
AS BUILT

MATERIAL NOTES

THIS UNIT IS IN SOUR SERVICE, CLASS 2, ALL MATERIAS IN CONTACT WITH PROCESS FLUID SHALL BE FULLY KILLED AND MEET NACE MR 0175 LOW CARBON STEEL. WHEN THESE COMPONENTS ARE INTENDED FOR WELDING, THEY SHALL ALSO MEET THE FOLLOWING PROPERTIES: WHEN TRACE ELEMENTS ARE SHOWN ON THE MATERIAL TEST REPORT(MTR), THE CARBON EQUIVALENT (CE) SHALL BE LESS THAN OR EQUAL TO 0.45%. THE CE IS DEFINED AS FOLLOWS:
$$CE = \%C + \%Mn/6 + (\%Cr + \%Mo + \%V)/5 + (\%Ni + \%Cu)/15$$

COLUMN BASE LOADS (kN)

COLUMN		X		Y	
DIRECTION		VERT	HORIZ	VERT	HORIZ
MINIMUM LOAD		24.1	—	48.2	—
MAXIMUM LOAD		49.2	2.8	76.2	5.7
WIND LOAD BASED ON	0.40 kPa				
SNOW LOAD BASED ON	1.70 kPa				

REVISIONS

- Δ

 PER CUST REQUEST (REDESIGN)
OCT 7/2008 (BG)
- Δ

 PER CUST REQUEST DEC 4/2008 (RL)
- Δ

 PER CUST/EI APRIL 13/2009 (RL)
- Δ

 PER CUST JUN 2/2009 DCR NI-014829(RL)
- Δ

 PER EI JUN 11/2009(RL) DCR A-014860
- Δ

 PER E.I. AUG 25/09 (RL) DCR-C-014941

MATERIAL LIST

LINE	PART	MATERIAL
1	TUBES/FINS	SA-179/ALUMINUM
2	HEADER PLATE	SA-516-70N & I.T.
3	FLANGE/HEATING COIL FLANGE	SA-350-LF2 CL 1 Δ
4	PIPE/HEATING COIL PIPE	SA-333-6 Δ
5	FORGED TRANSITION	SA-420-WPL-6 Δ
6	TEE Δ	SA-350-LF2 CL1 Δ
7	SHOULDER PLUGS	SA-350-LF2 CL1
8	SHOULDER GASKETS	C1010/20
9	ANGLE/CHANNEL	CSA G40.21 GR 300W
10	SHEET	ASTM A1011
11	WIDE FLANGES	CSA G40.21 GR 350W or A572 GR 50
12	TUBE SUPPORTS	CSA G40.21 GR 350W
13	STRUCTURE BOLTS	ASTM325M
14	STANDARD BOLTS	ASTM307
15		

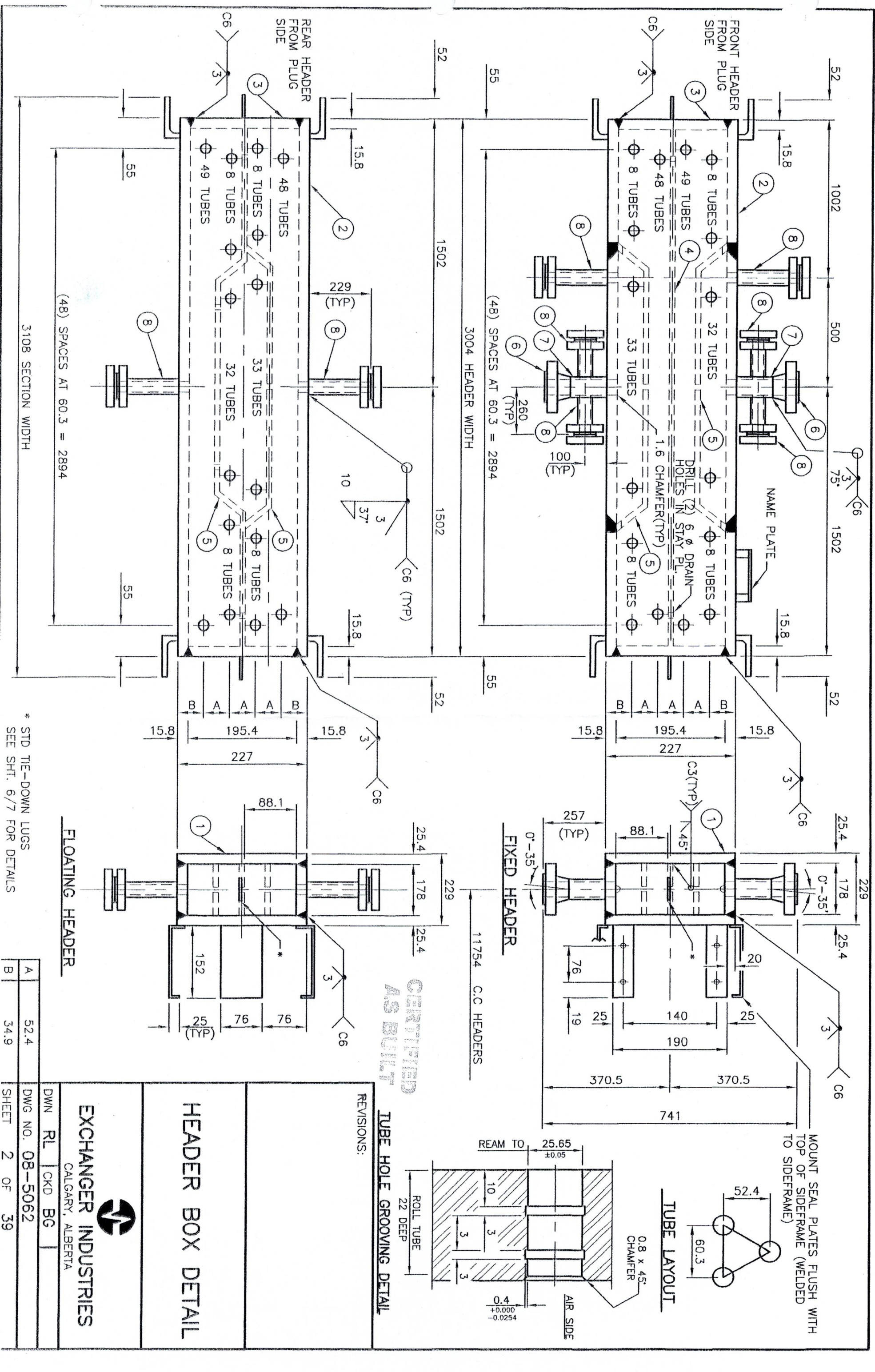
DESIGN CONDITIONS

SERVICE	LEAN AGE COOLER
ITEM NUMBER	E-5888
Δ PROCESS DESIGN PRESSURE	690 kPa _g & F.V. @ 149°C
Δ MAWP	N/C=1965 kPa _g ; H/C=917 kPa _g Δ
HYDRO TEST PRESSURE	2555 kPa _g (SHOP); 1192 kPa _g (FIELD) Δ
DESIGN TEMPERATURE	149 °C
MDMT	-45 °C
CORROSION ALLOWANCE	6.401 mm
NUMBER OF PASSES	SIX
BARE SURFACE (TOTAL)	176.2 SQ. M
STRESS RELIEVE	YES
N.D.E. EXAMINATION	SEE NOTE #7
SECTION WEIGHT/SECTION	7316 Kgs
CU. FT. CAPACITY/SECTION	0.91 CU. M
NUMBER OF SECTIONS/BAY	ONE
TOTAL EMPTY WEIGHT/BAY	22000 Kgs
WEIGHT FULL OF WATER/BAY	22900 Kgs

MATERIALS & DESIGN
CONDITIONS

**EXCHANGER INDUSTRIES**
CALGARY, ALBERTA

DWG NO. 08-5062
SHEET 1A OF 39



* STD TIE-DOWN LUGS
SEE SHT. 6/7 FOR DETAILS

A	52.4
B	34.9

EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWN RL CKD BG

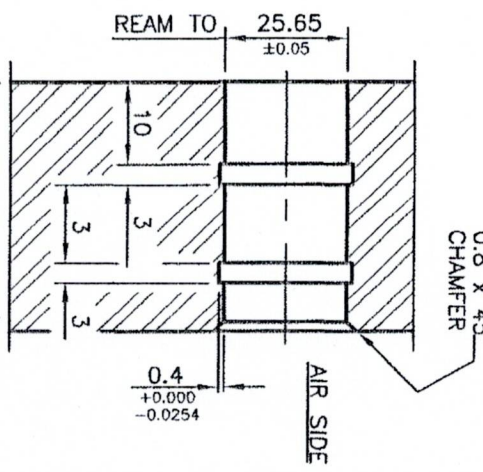
DWG NO. 08-5062

SHEET 2 OF 39

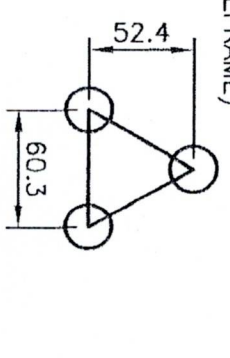
REVISIONS:

HEADER BOX DETAIL

CERTIFIED
AS BUILT
TUBE HOLE GROOVING DETAIL



TUBE LAYOUT



MOUNT SEAL PLATES FLUSH WITH
TOP OF SIDEFRADE (WELDED
TO SIDEFRADE)

GENERAL NOTES

MARK	QUAN'T	DESCRIPTION	MATERIAL
1	4	TUBE AND PLUG SHEETS 25.4 x 227 x 3004	SA-516-70N & I.T.
2	4	WRAPPER PLATES 15.8 x 172 x 3004	SA-516-70N & I.T.
3	4	END PLATES 15.8 x 172 x 189	SA-516-70N & I.T.
4	1	STAY PLATE 19 x 175 x 2969	SA-516-70N & I.T.
5	4	STAY PLATE 19 x 175 x AS SHOWN	SA-516-70N & I.T.
6	2	4-CL.150 RFWN FLG SCH 160	SA-350-LF2 CL1
7	2	4 SCH 160 (13.49 THK) x 181 LG	SA-333-6
8	8	2-CL.150 RFLWN FLG (13.35 THK) x 229 L.G. C/W BLINDS	SA-350-LF2 CL1
	194	25.4 OD x 14 BWG M/W x 11582 LG	SA-179
		STEEL TUBES WITH 15.8 HIGH "L" TYPE	
		ALUMINUM FINS 60.3Ø ZINC BLOCKS STAPLE ENDS	
	388	STEEL SHOULDER PLUGS 29 Ø x 25 LONG U.H.	SA-350-LF2 CL1
	388	STEEL GASKETS	C1010/20
	32/64	15.88Ø STUDS x 83 LONG / 15.88Ø NUTS	SA-193-B7M/SA-194-2HM
	8	2-CL.150 ANSI STYLE C.G. SPIRAL WOUND STAINLESS STEEL GASKET	

1) LEVEL FLANGES FROM TUBE SIDE.
 2) DRILL AND REAM TUBE SHEET HOLES TO **25.64 ±0.05** DIA WITH 200 FINISH
 3) DRILL AND TAP PLUG SHEETS FOR 29 x 12 NF. SHOULDER TYPE PLUG
 4) ROLL TUBES **22 DEEP IN TUBE SHEET**
 5) SPOT FACE PLUG HOLES 36 DIA FOR GASKET SEATING
 6) FULL PENETRATION WELDS ON ALL WRAPPER, END & STAY PLATES
 7) STRESS RELIEVE **1 HOUR AT 621°C - 635°C**
 8) N.D.E. EXAMINATION:
 a) MPI ALL BEYELED EDGES OF TUBESHEETS, PLUG SHEETS, ACROSS WRAPPER ENDS & NOZZLE CUTOUTS
 b) FULL UT FOR HEADER BOX WELDS
 c) FULL UT AT LEAST TWO CAT. "D" NOZZLE WE FULL MT AT LEAST TWO CAT. "D" NOZZLE WE
 d) FULL VISUAL TEST ~~A-E~~ CAT. "D" NI
 e) VISUAL TEST ALL NON-PRESSURE ATTACHMENT
 f) MPI LIFTING LUGS
 g) MPI EXPOSED CUT EDGES ON TUBESHEETS AN SHEETS AFTER WELDING.
 h) FULL VT & UT HEADER BOX BUTT WELDS

9) BOTH INLET & OUTLET NOZZLE EACH TO HAVE (2) 2-#150 FLANGED
 10) ALL PLUG SHEETS TO BE TAPPED 25 DEEP.
 11) ALL BOLT HOLES TO STRADDLE NORMAL CENTER LINES

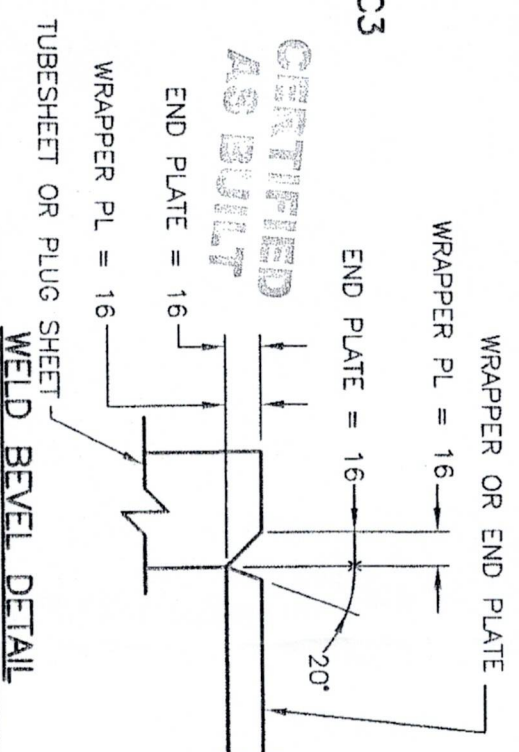
12) CODES: ASME SECTION VIII DIV. 1, 2007 EDITION, APPENDIX 13,
 API 661, INSPECTION PER UG-93, TUBES IMPACT EXEMPT BY UCS-6I
 IMPACT TEST PER UG-84 (NO PRODUCTION TEST PLATE REQ'D) PLATE
 BE IMPACT TESTED @ -45 °C 27/20 JOULES, LOW TEMP PIPE/FLANGES EXEMPT
 BY UCS-66(g); WELD METAL EXEMPT PER UCS 67(o)(2)

13) CODE STAMP REQ'D: YES (PROVINCE OF ALBERTA)

DESIGN CONDITIONS

ITEM NUMBER	E-5888
Δ PROCESS DESIGN PRESSURE	690 kPAG & FV @ 149 °C
Δ MAMP	N/C=1965 kPog; H/C=917 kPog Δ
HYDRO TEST PRESSURE	2555 kPog (SHOP); 1192 kPog (FIELD) Δ
DESIGN TEMPERATURE	149 °C
MDMT	-45 °C
CORROSION ALLOWANCE	6.401 mm
NUMBER OF PASSES	SIX
BARE SURFACE /SECTION	176.2 SQ M
SECTION WEIGHT / SECTION	7316 KGS
CU m CAPACITY/SECTION	HEADERS = 0.12 TUBES = 0.79

794745



THIS UNIT IS IN SOUR SERVICE, CLASS 2. ALL MATERIAS IN CONTACT WITH PROCESS FLUID SHALL BE FULLY KILLED AND MEET NACE MR 0175 LOW CARBON STEEL. WHEN THESE COMPONENTS ARE INTENDED FOR WELDING, THEY SHALL ALSO MEET THE FOLLOWING PROPERTIES:

WHEN TRACE ELEMENTS ARE SHOWN ON THE MATERIAL TEST REPORT(MTR), THE CARBON EQUIVALENT (CE) SHALL BE LESS THAN OR EQUAL TO 0.45%. THE CE IS DEFINED AS FOLLOWS:

$$CE = \%C + \%Mn/6 + (\%Cr + \%Mo + \%V)/5 + (\%Ni + \%Cu)/15$$

52

✓ PER CUST/EI APRIL 13/2009 (RL)
 ✓ PER EI JUN 11/2009(RL) DCR A-014860
 73

MATERIALS & DESIGN CONDITIONS

EXCHANGER INDUSTRIES
CALGARY, ALBERTA

CALGARY, ALBERTA

DWG NO. 08-5062

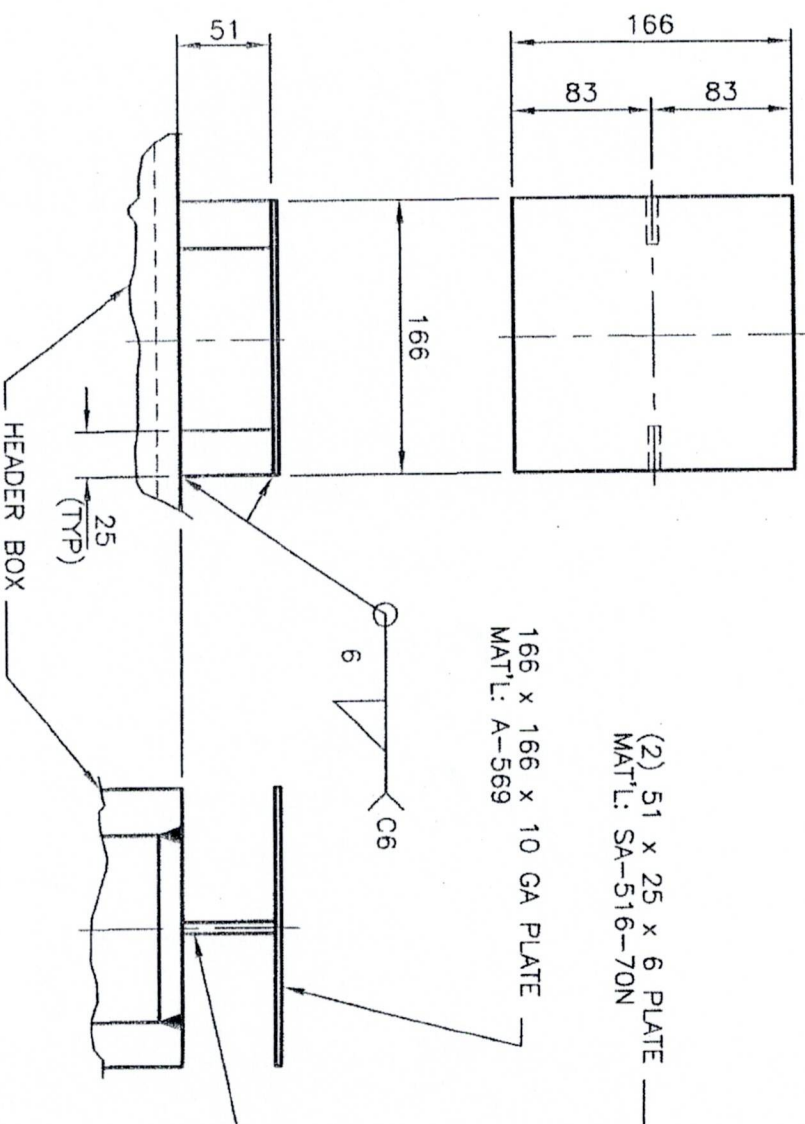
DWN	RL	CKD	BG
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SHEET 3 OF 39

CERTIFIED BY
EXCHANGER INDUSTRIES
A DIVISION OF PREMETALCO INC.
CALGARY, ALBERTA, CANADA

U	MAWP:	-	PSI	AT	-	°F
	MAWP:	917	KPA	AT	149	°C
W	MAEWP:	-	PSI	AT	-	°F
RT1	MAEWP:	103	KPA	AT	149	°C
HT	MDMT:	-	°F	AT	-	PSI
	MDMT:	-45	°C	AT	917	KPA
SERIAL NO. 08-5062 YEAR MFD. 2009						
LEAN AGE COOLER						
P.O.: FCSR-DPH-4001C						
ITEM NO.: E-5888; MODEL NO.: 194BL4 38 6						
SECTION CAPACITY/WEIGHT: 0.91 CU. M. / 7316 KGS						
BARE TUBE/FINNED SURFACE AREA: 176.2/3728.4 SQ. M						
FIELD HYDROTEST PRESSURE: 1192 KPA; C.A.=6.401mm						
PROV. REG. CRN						

0.8 x 152 x 152
MAT'L: STAINLESS STEEL



NAME PLATE BRACKET DETAIL

CERTIFIED
AS BUILT

NAME PLATE DETAIL

REVISIONS

✓ PER CUST JUN 2/2009 DCR NI-014829(RL)

NAME PLATE DETAIL

ONE REQ'D EACH SECTION
NO. OF SECTIONS REQ'D ONE

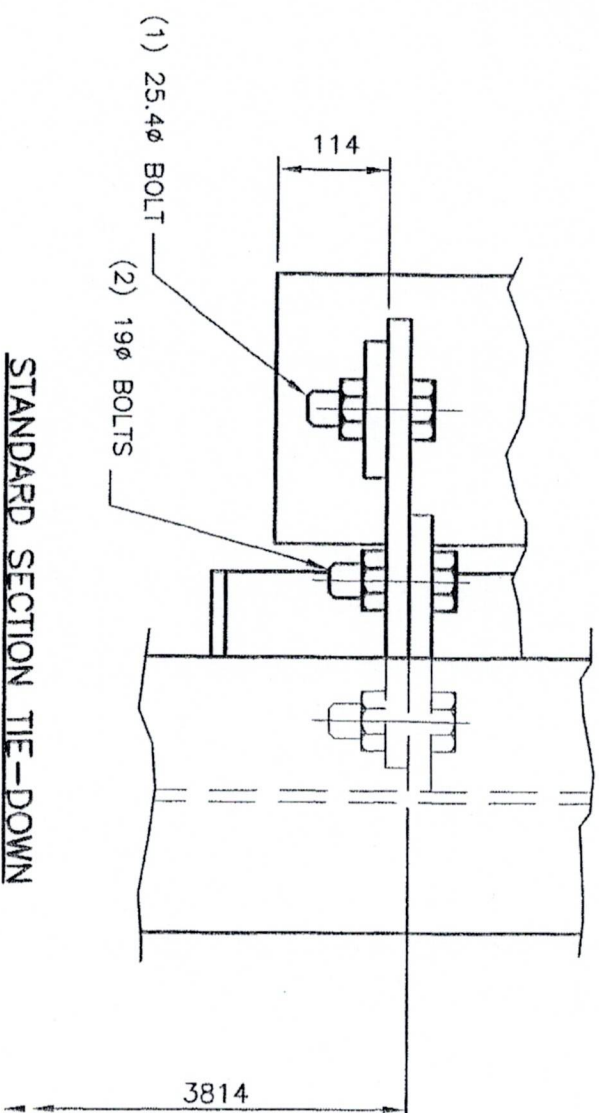
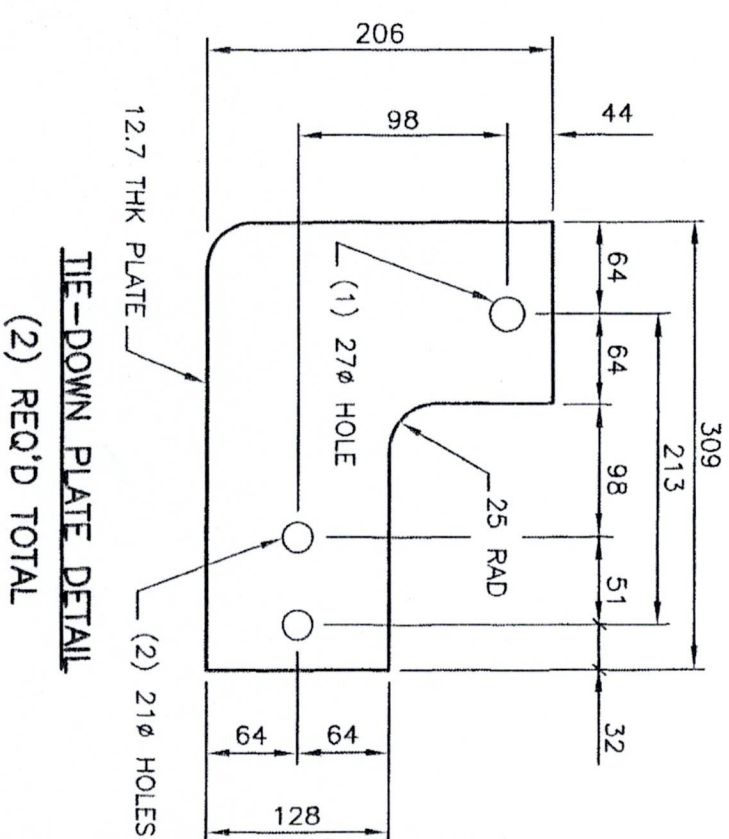
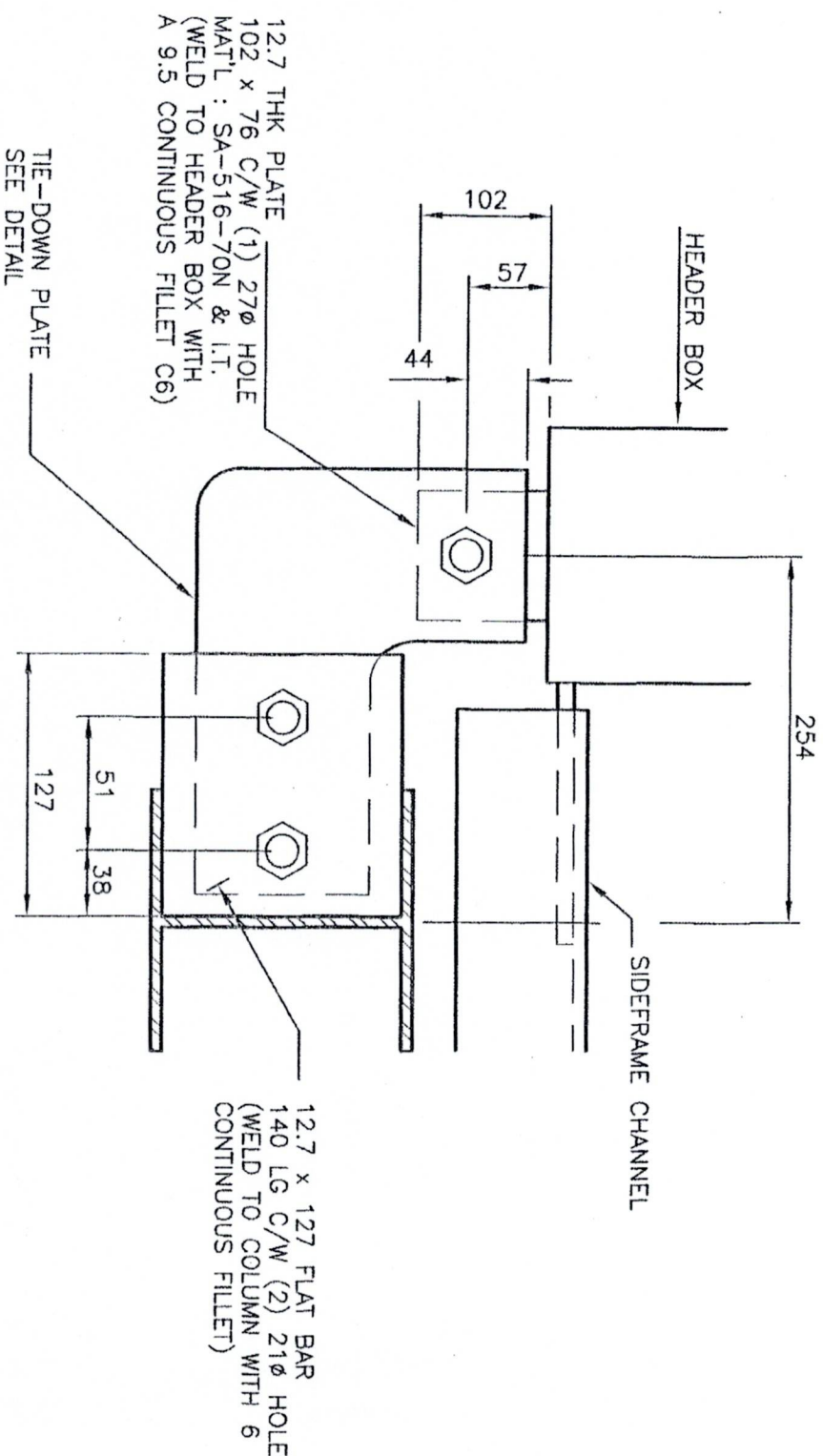


EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062

DWN RL CKD BG

SHEET 4 OF 39



CERTIFIED
 AS BUILT

NOTES: ALL TIE-DOWNS AND BOLTS TO BE PAINTED RED.

REVISIONS

STD. FRONT TIE-DOWN

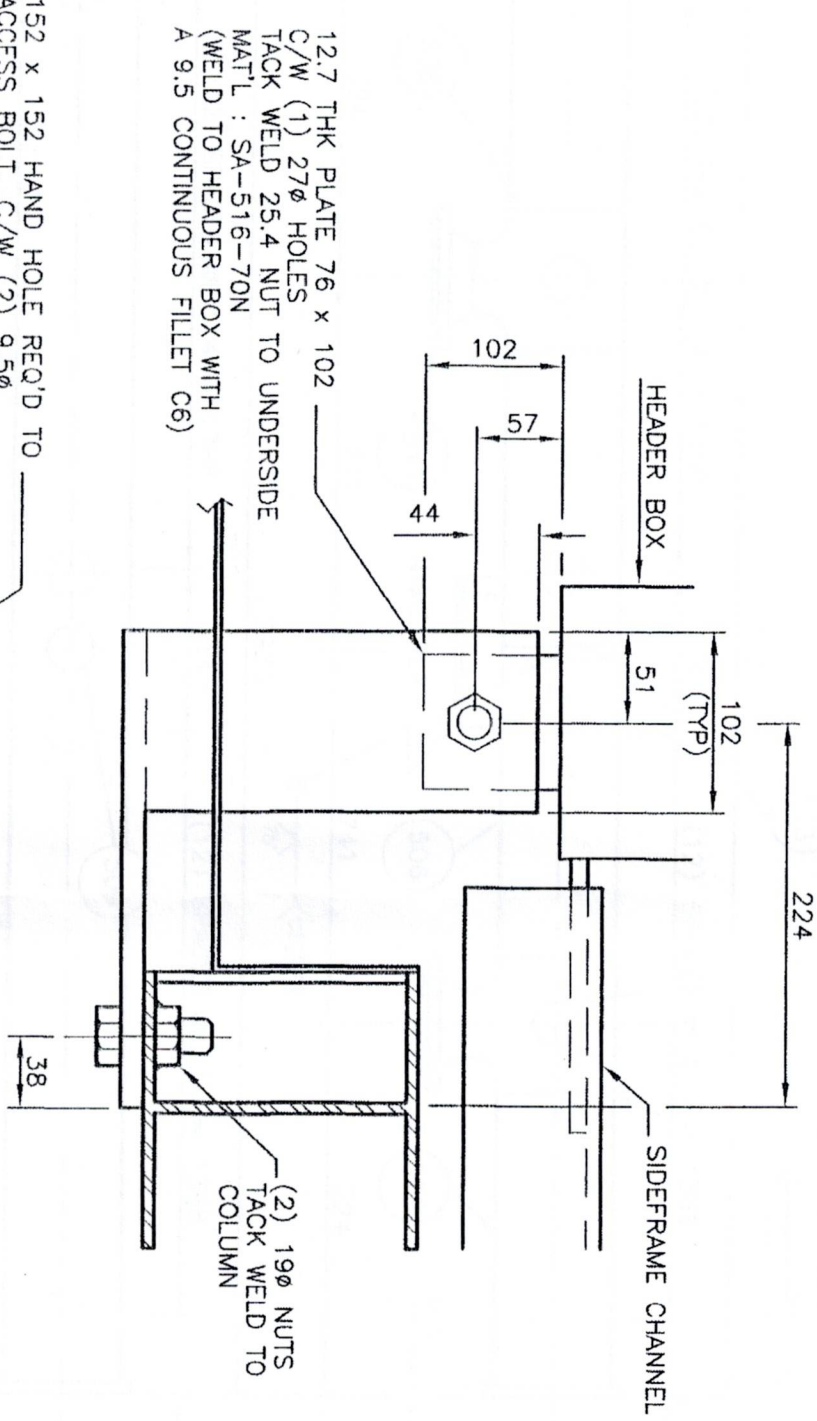
EXCHANGER INDUSTRIES
 CALGARY, ALBERTA



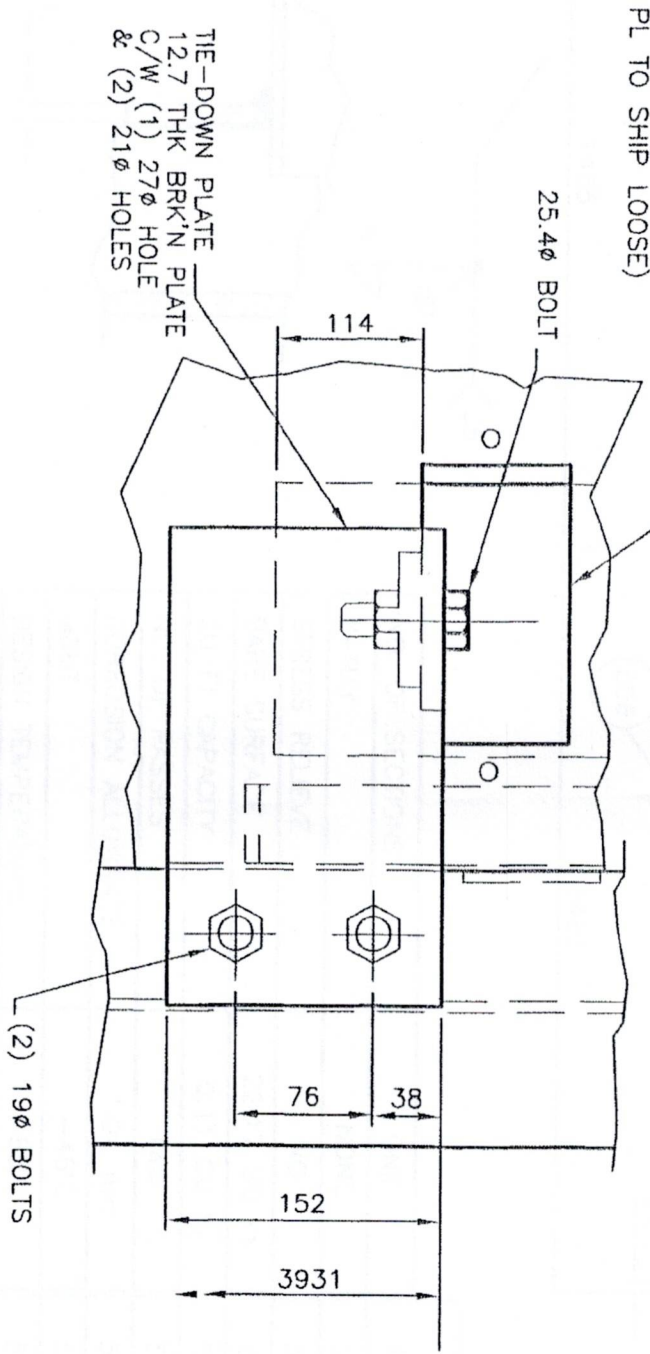
DWG NO. 08-5062

DWN RL CKD BG

SHEET 6 OF 39

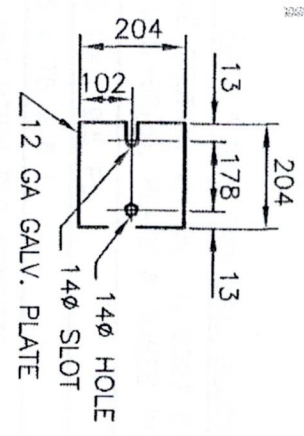


152 x 152 HAND HOLE REQ'D TO
 ACCESS BOLT. C/W (2) 9.5Ø
 STUDS & COVER PLATE.
 (COVER PL TO SHIP LOOSE)



(2) SETS REQ'D TOTAL

CERTIFIED
 AS BUILT



COVER PLATE DETAIL

NOTES: ALL TIE-DOWNS AND BOLTS TO BE PAINTED RED.

REVISIONS

STANDARD SECTION TIE-DOWN
 FOR END RECIRC. UNITS

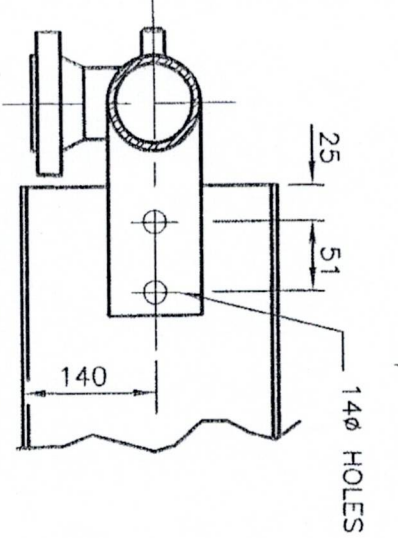
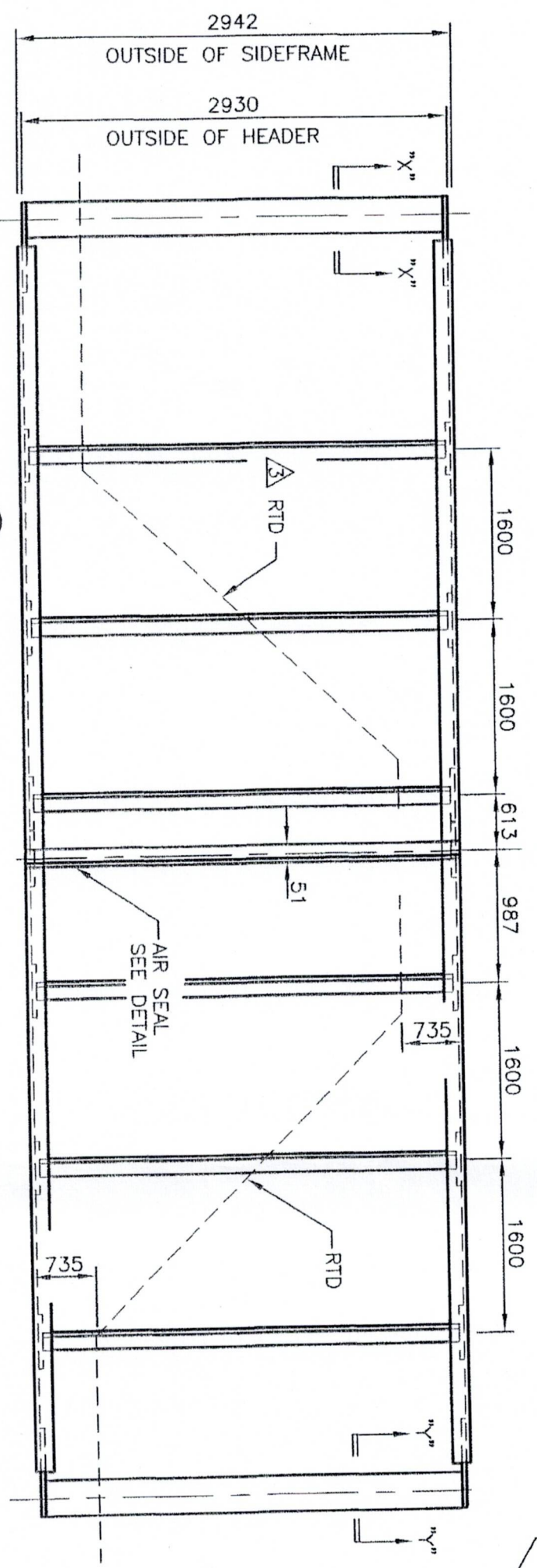
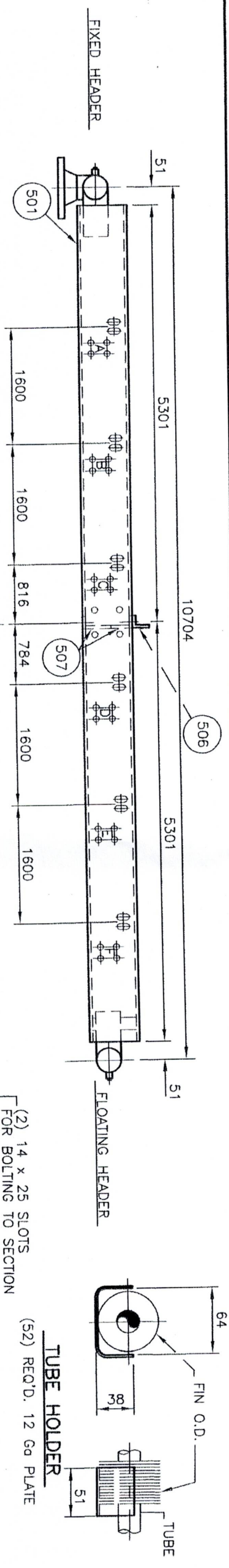


EXCHANGER INDUSTRIES
 CALGARY, ALBERTA

DWG. NO. 08-5062

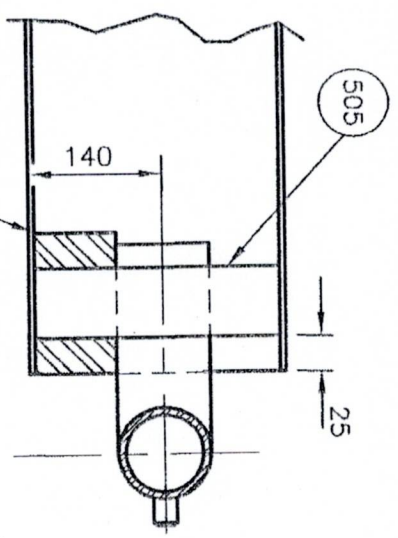
DWN RL CKD BG

SHEET 7 OF 20



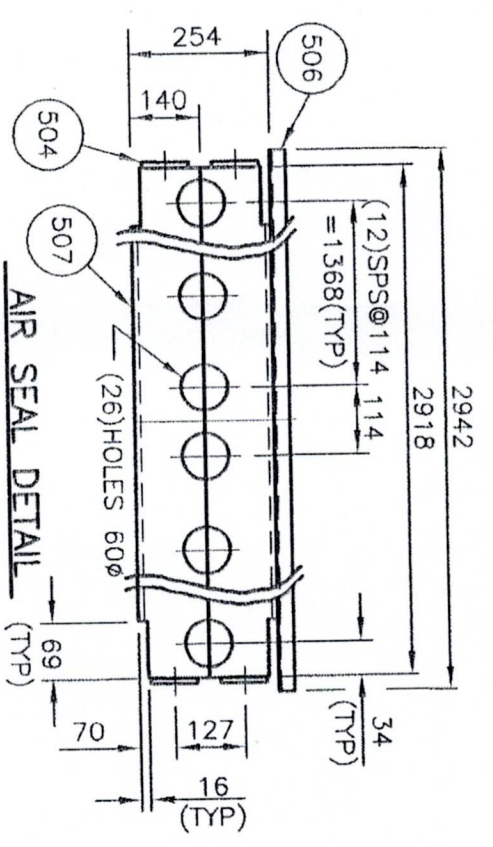
SECTION "X-X"

FIXED HEADER CONNECTION

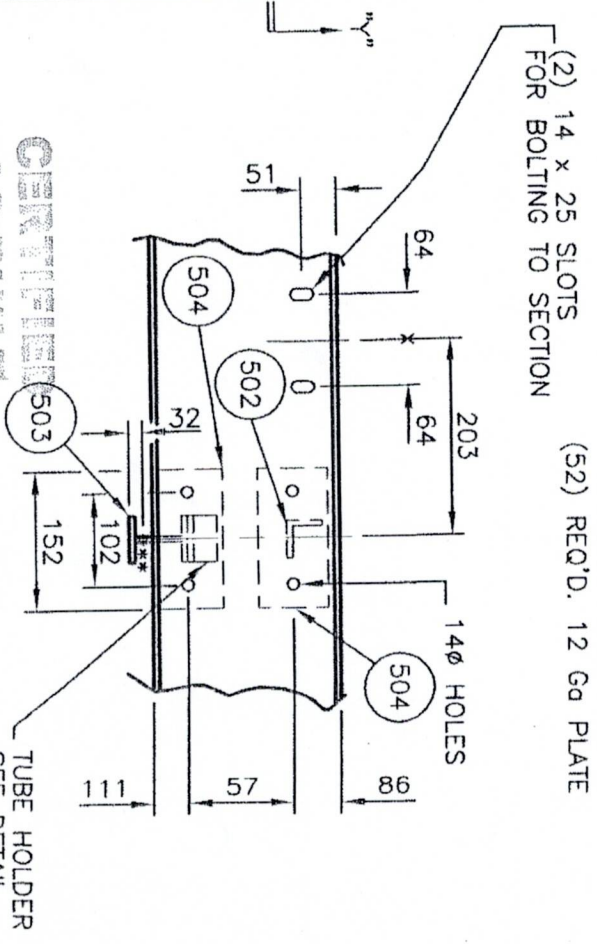


SECTION "Y-Y"

FLOATING HEADER CONNECTION



AIR SEAL DETAIL (TYP)



CERTIFIED
AS BUILT

TUBE SUPPORTS

* USE SELF TAPPING SCREWS TO ATTACH TO ITEM 507 (500 SPACING)
** DRILL 9.5 Ø HOLES FOR RTD AS SHOWN

ITEM	NO.	DESCRIPTION	LENGTH
507	1	12 GA x 114 x 51 L	2918
506	1	12 GA x 140 x 51 L	2942
505	2	76 x 229 x 9.5 PL	
504	28	51 x 152 x 6 PL	
503	6	76 I BEAM @ 8.5 kg/m	2918
502	6	51 x 51 x 6 L	2918
501	2	254 CHAN. @ 23 kg/m	10602

CUT LIST FOR (1) ONE ASSEMBLY

GENERAL NOTES
1) ALL STRUCTURAL STEEL IS G40.21-44W

2) TACK WELD (1) TUBE HOLDER AT EACH TUBE ALONG (2) BOTTOM TUBE SUPPORTS.
3) ALL HOLES ARE 14 DIA.

REVISIONS
1 PER CUST REQUEST APRIL 13/2009 (RL)

FRAME - HEATING COIL

ITEM NO. 50



EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062

CERTIFIED BY
EXCHANGER INDUSTRIES
A DIVISION OF PREMETALCO INC.
CALGARY, ALBERTA, CANADA

	MAWP:	-	PSI	AT	-	.F
	MAWP:	1378	KPA	AT	185	.C
W	MAEWP:	-	PSI	AT	-	.F
	MAEWP:		KPA	AT		.C
	MDMT:	-	.F	AT	-	PSI
	MDMT:	-45	.C	AT	1378	KPA

SERIAL NO. 08-5062 YEAR MFD. 2009

GLYCOL HEATING COIL

P.O.: FCSR-DPH-4001C

ITEM#: E-5888 (GLYCOL COIL)

SECTION CAPACITY: 0.11 CU. M.

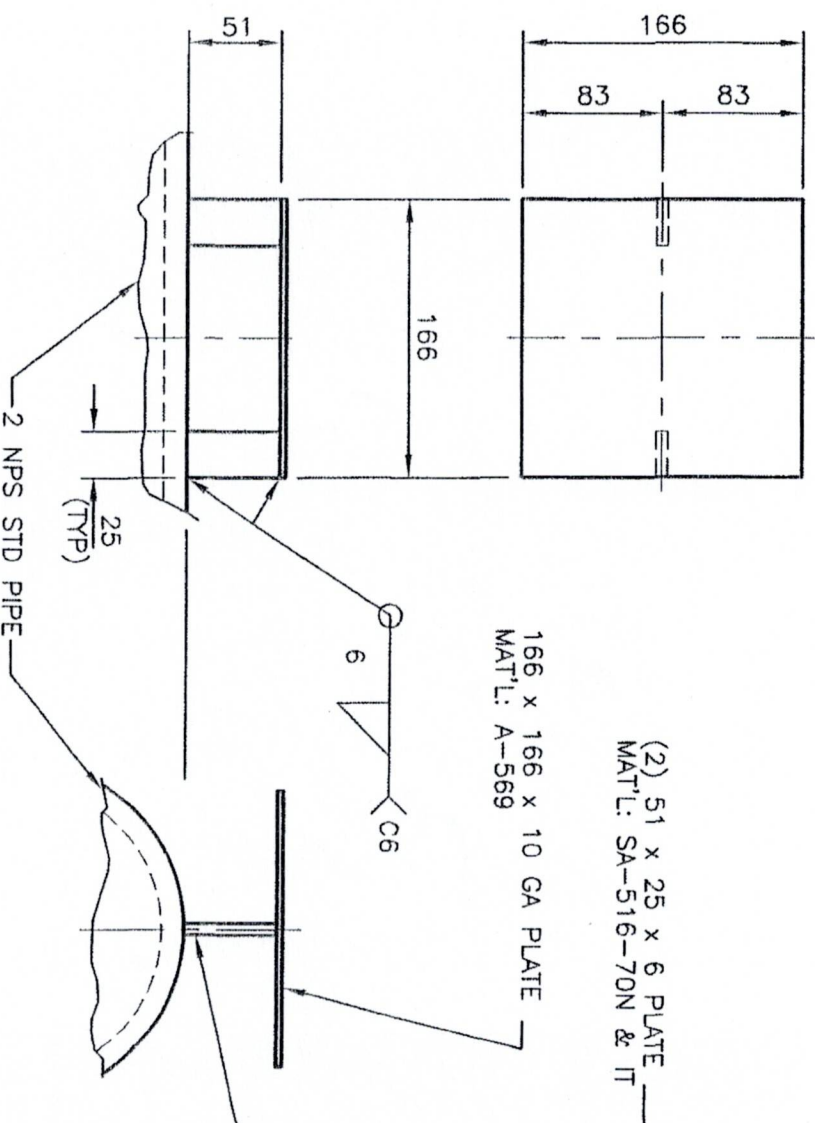
HYDROTEST PRESSURE: 1791 KPAG

PROV. REG.

CRN OH08720.2

NAME PLATE DETAIL

0.8 x 152 x 152
MAT'L: STAINLESS STEEL



NAME PLATE BRACKET DETAIL

CERTIFIED
AS BUILT

REVISIONS

NAME PLATE DETAIL

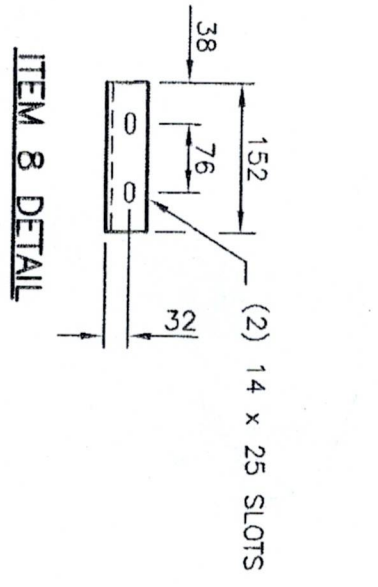
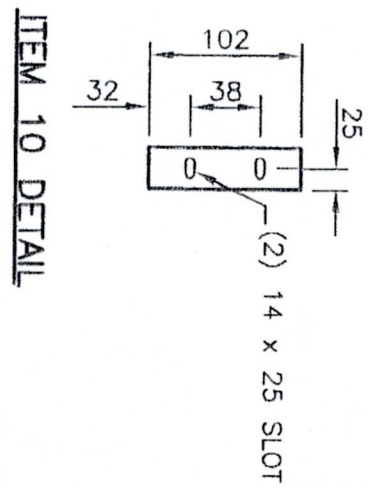
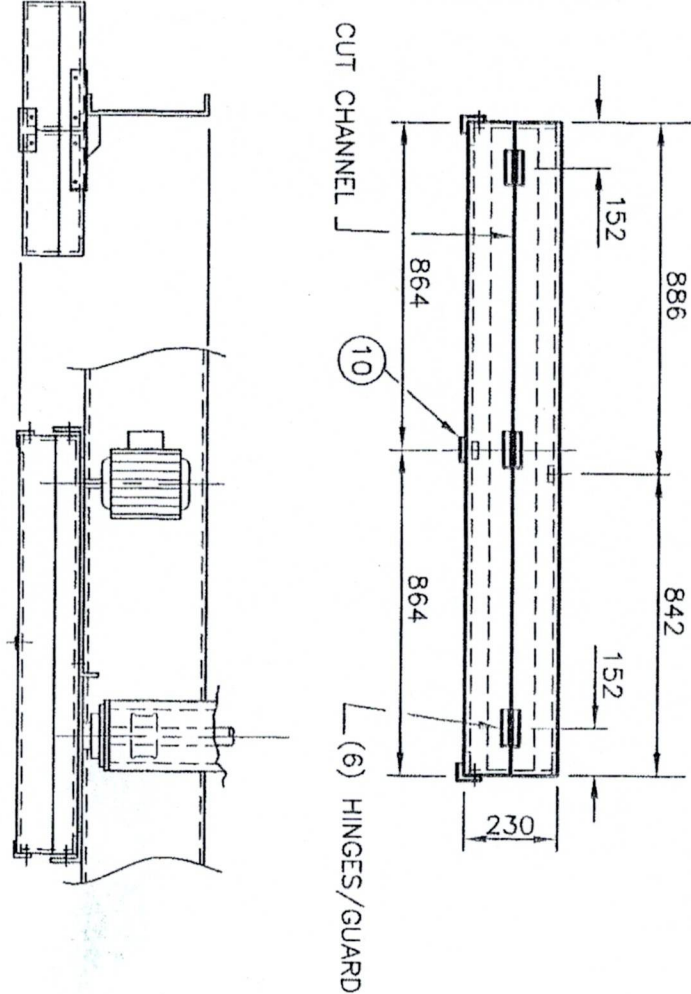
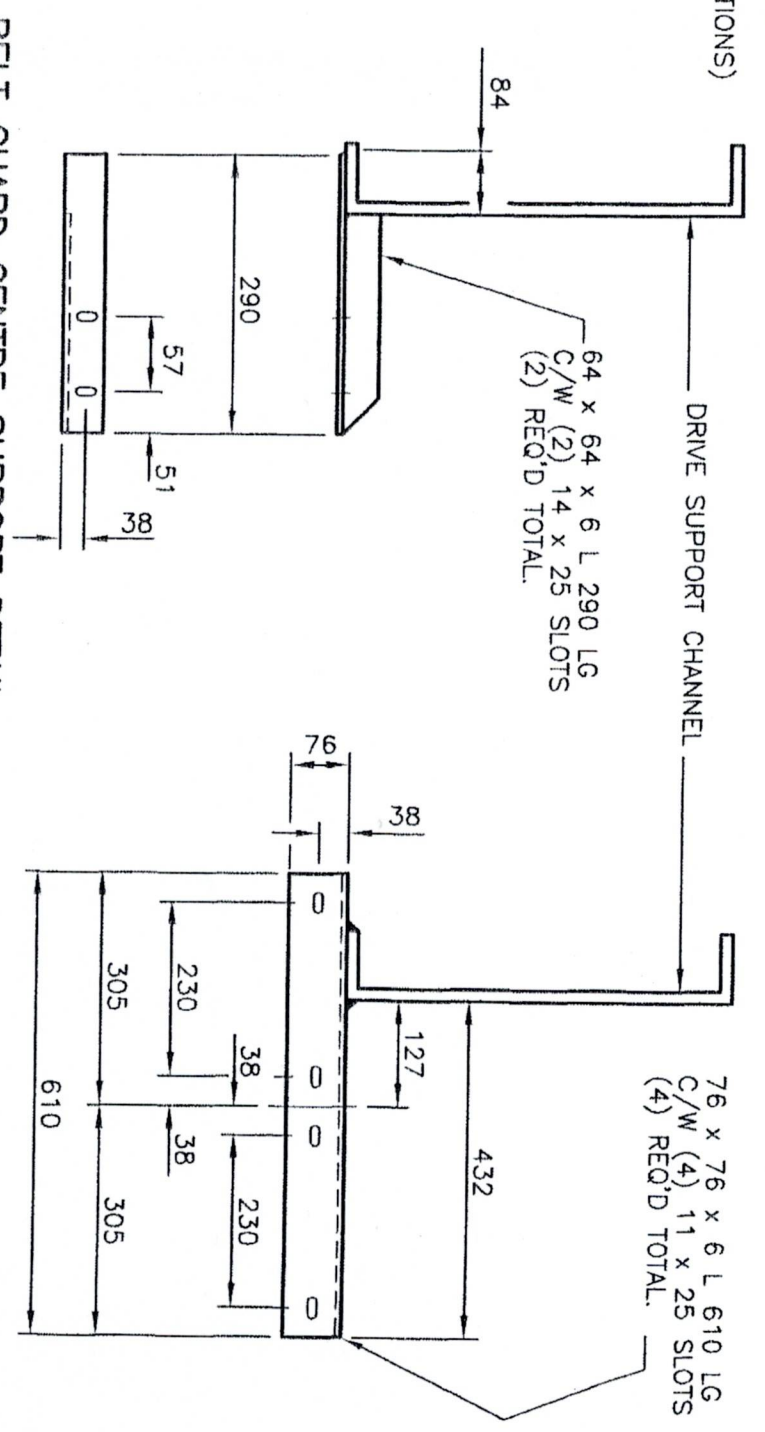
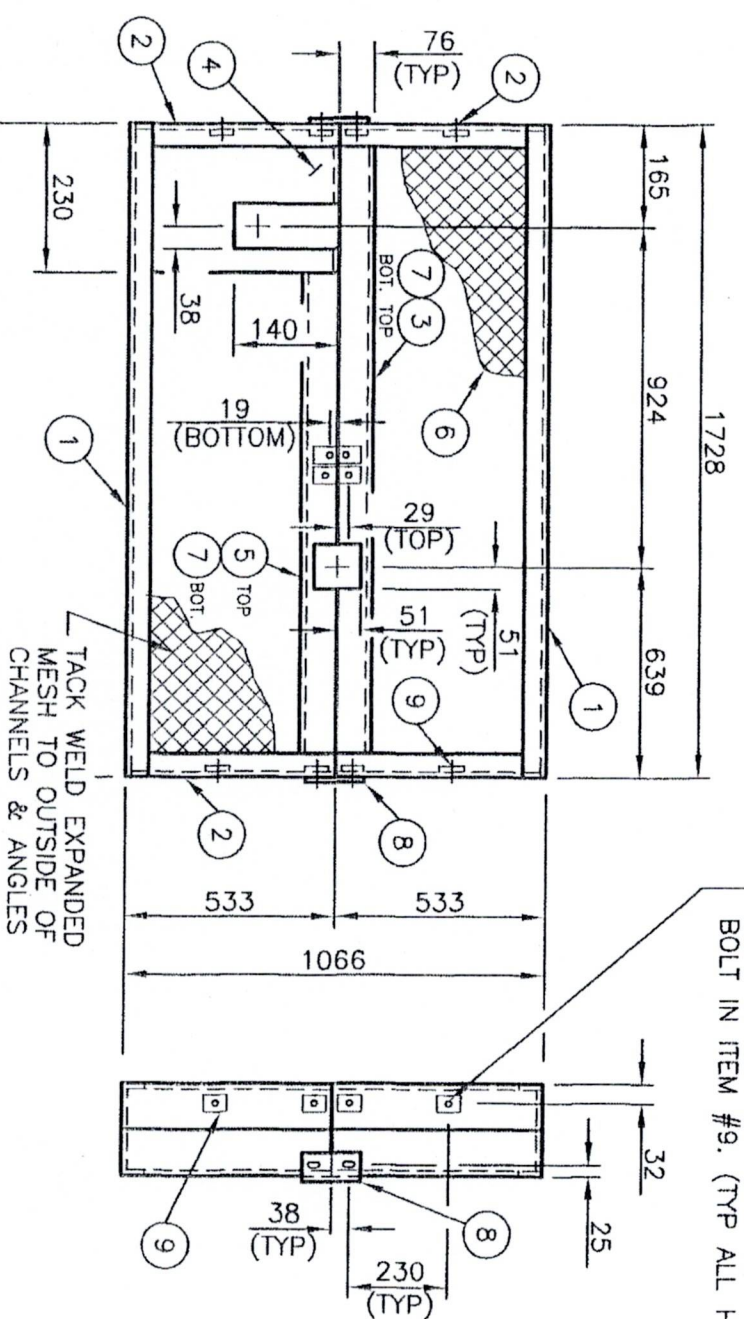
ONE REQ'D EACH SECTION
NO. OF SECTIONS REQ'D ONE



EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWN RL CKD BG I

DWG NO. 08-5062
SHEET 10 OF 39



CERTIFIED
AS BUILT

BELT GUARD MOUNTING

GENERAL NOTE:
ALL MATERIAL TO BE ALUMINUM

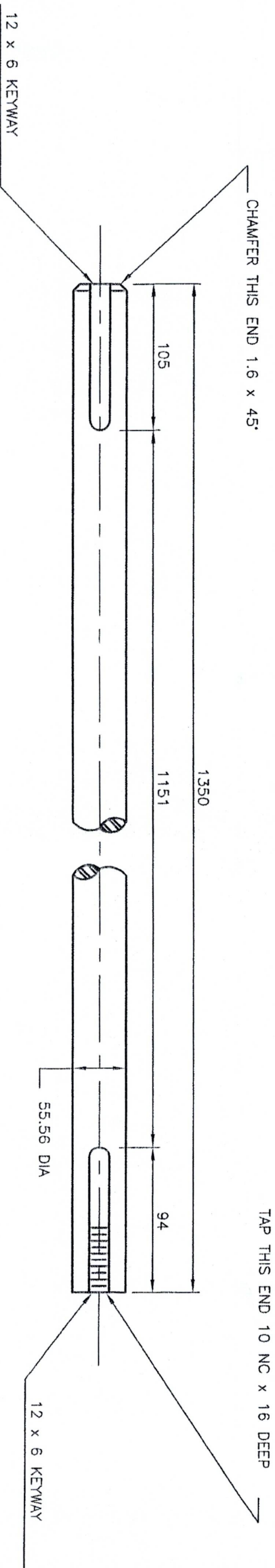
REVISIONS

ITEM NO.	DESCRIPTION	LENGTH
CUT LIST FOR (2) TWO ASSEMBLIES		
10	2 51 x 6 FLAT	102
9	32 25 x 6 FLAT BAR	38
8	4 51 x 51 x 6 L	152
7	4** 25 x 25 x 3 L	1676
6	8 38 x #10 GA. FLAT EXPANDED ALUMINUM MESH CUT AS REQ'D	508 x 1702
5	2* 76 x 25 x 3 L	1473
4	2* 12 GA x 25 x 508 L	203
3	2* 76 x 25 x 3 L	1676
2	8 #12 GA. PL. x 9" HIGH BRK'N CHAN. C/W 25 FLG	530
1	4 #12 GA. PL. x 230 HIGH BRK'N CHAN. C/W 25 FLG	1728

BELT GUARD DETAIL TYPE "B"

EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062



STYLE 1

NO. REQ'D: TWO

CERTIFIED
AS BUILT

GENERAL NOTES

- 1) ALL TOLERANCES +0.00, -0.10 ON DIA
- 2) WIPE ALL SHAFTS WITH OIL AND TAPE KEYWAYS.
- 3) CHECK SHAFTS TO MAINTAIN MAX. 0.381 DEFL.
- 4) SHAFT MATERIAL C-1045 C.S.

REVISIONS

SHAFT DETAIL

ITEM NO. 52



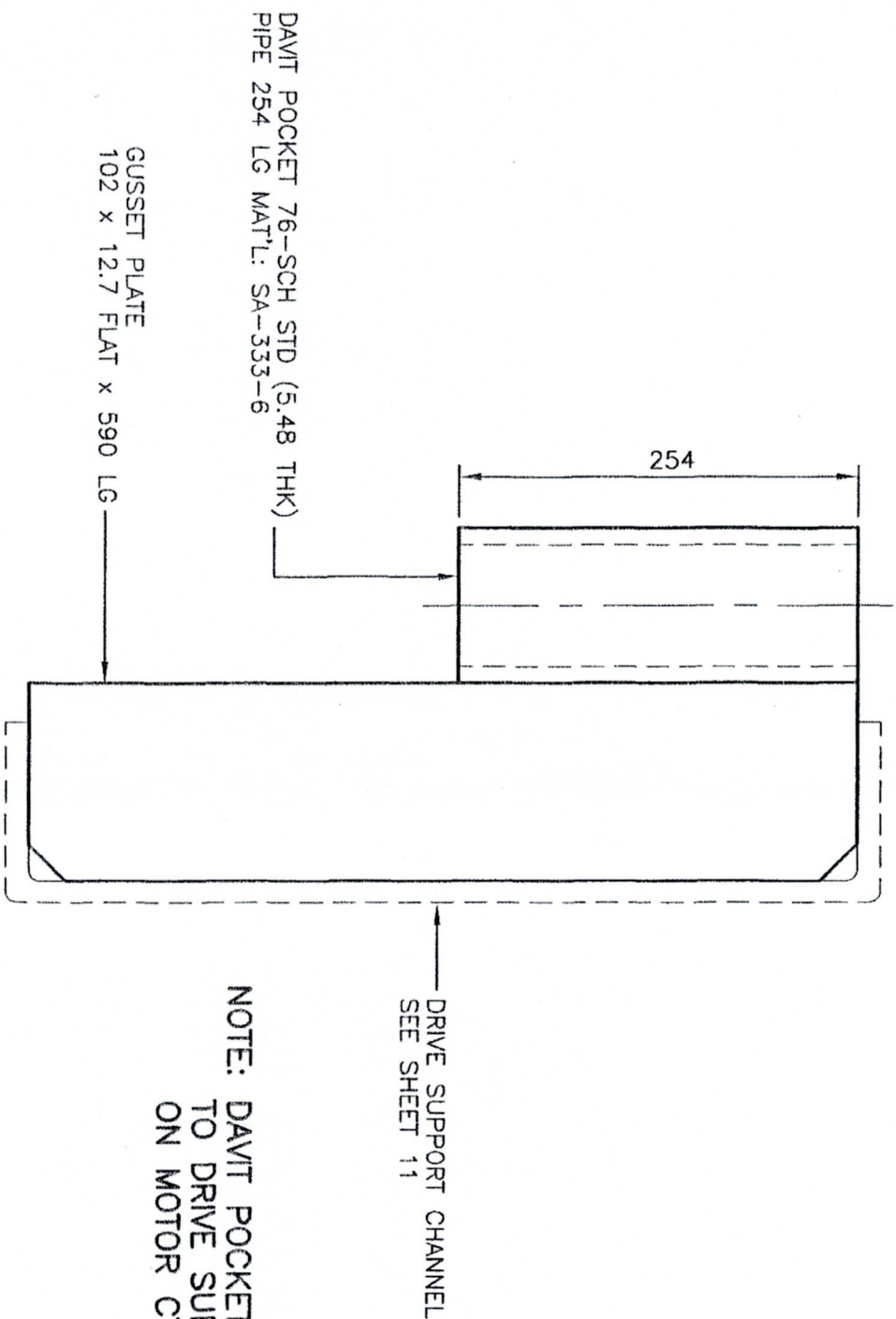
EXCHANGER INDUSTRIES

CALGARY, ALBERTA

DWG NO. 08-5062

DWN RL CKD BG

SHEET 13 OF 39



DAVIT POCKET DETAIL
(2) REQ'D

CERTIFIED
AS BUILT

GENERAL NOTES

ALL STRUCTURAL STEEL IS G40.21-44W

REVISIONS

MOTOR DAVIT ARM DETAIL

(MAX LOAD 548 kg)



EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062

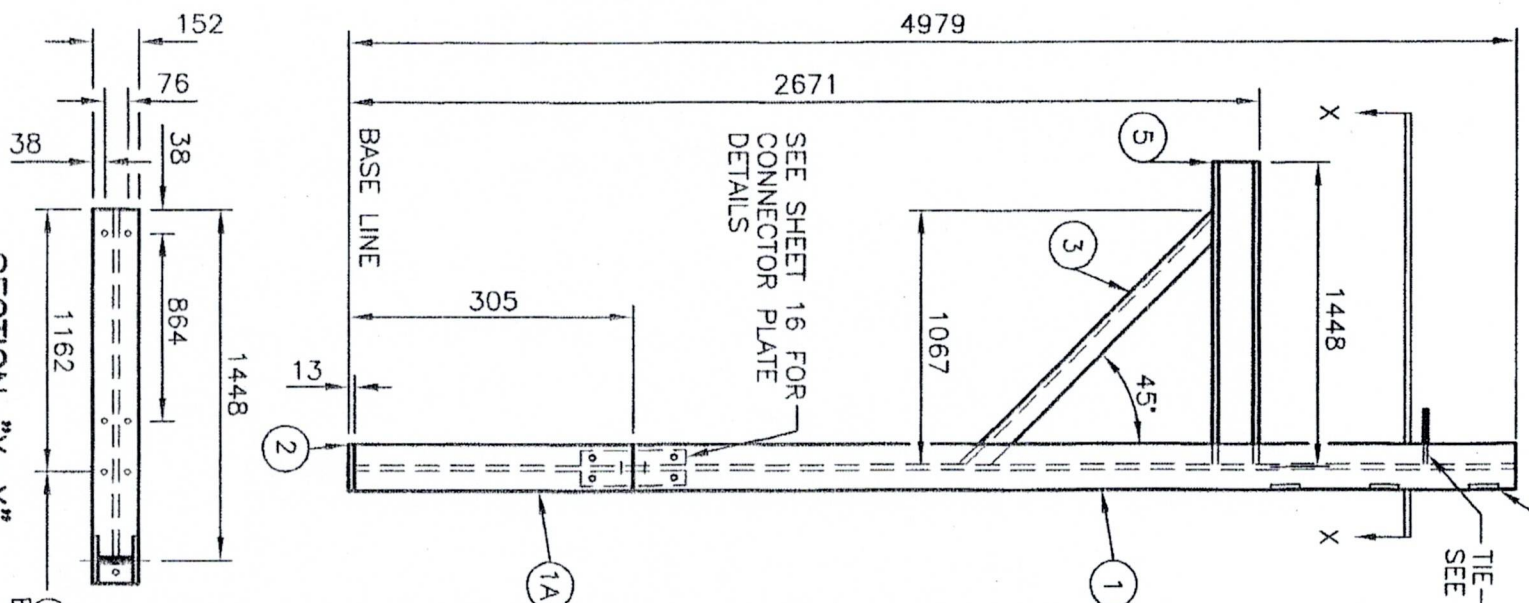
DWN RI LKN RC I

SHEET 44 OF 70

76x6 FLAT BAR 140 L.G.
FOR BOLT LINE "G" & "H"
(21) REQ'D TOTAL

HT OF COLUMN 4979

FRONT ORIENTATION

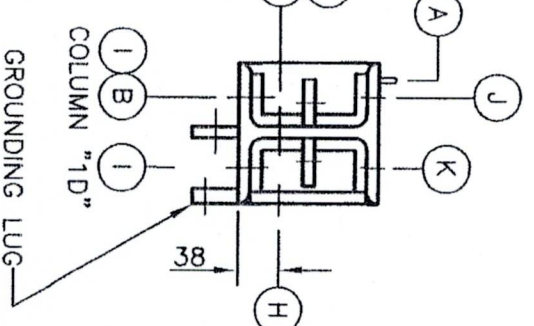
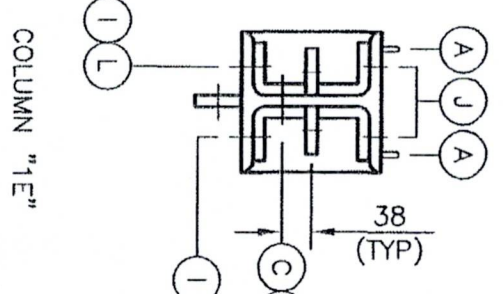
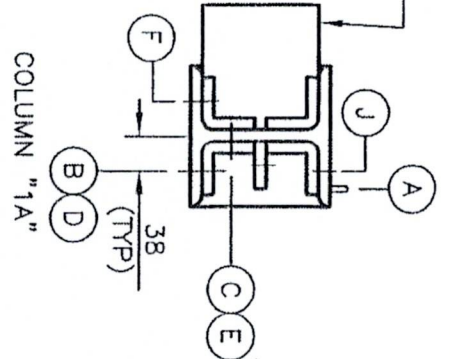
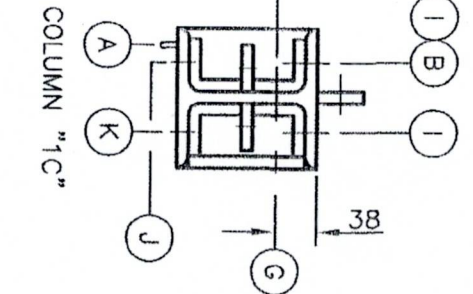
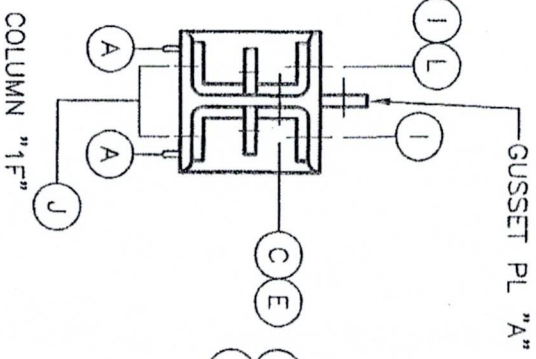
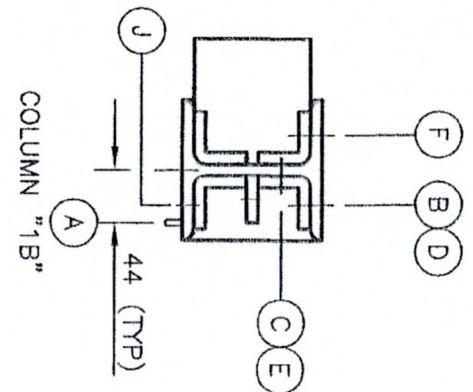
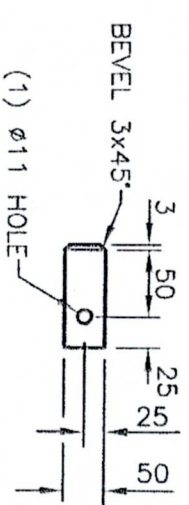


SECTION "X-X"

(2) 17Ø HOLES
BOTTOM FLG. FOR LADDER

GROUNDING LUG DETAIL (10 THK)

(1) REQ'D



LOUVRES MK 2,4 MK 5 MK 7 MK 10 MK 14 MK 18A/F MK 18D/E MK 37 MK 39 TIE DOWN MK 3		2834		(4)SPS@450=1800		40		305		A	
1481		2293		(2)SPS@450=900		305		B		B	
1506		2268		(2)SPS@450=900		305		C		C	
152		3912		(2)SPS@305=610		305		D		D	
61		3413		(3)SPS@400=1200		305		E		E	
2635		239		(4)SPS@450=1800		94		F		F	
146		239		(4)SPS@450=1800		94		G		G	
146		2278		(5)SPS@450=2250		305		H		H	
76		4598		(5)SPS@450=2250		305		I		I	
4674		51		254		305		J		J	
1086		3512		76		305		K		K	
1365		2190		(2)SPS@400=800		305		L		L	

AS BUILT
21Ø HOLE

6	-	102 x 127 x 12.7 PL C/W 38Ø HOLE	
5	2	152 WF @ 23 kg/m	1445
4/4A	-/-	76 x 6 FLAT	-/-
3	2	64 x 64 x 6 L	1508
2	6	152 x 152 x 12.7 PL	
1/1A	6/6	152 WF AT 23 kg/m	4674/292
ITEM NO.		DESCRIPTION	LENGTH

CUT LIST FOR (1) ONE ASSEMBLY

COLUMN DETAIL

ITEM NO. 1



EXCHANGER INDUSTRIES
CALGARY, ALBERTA

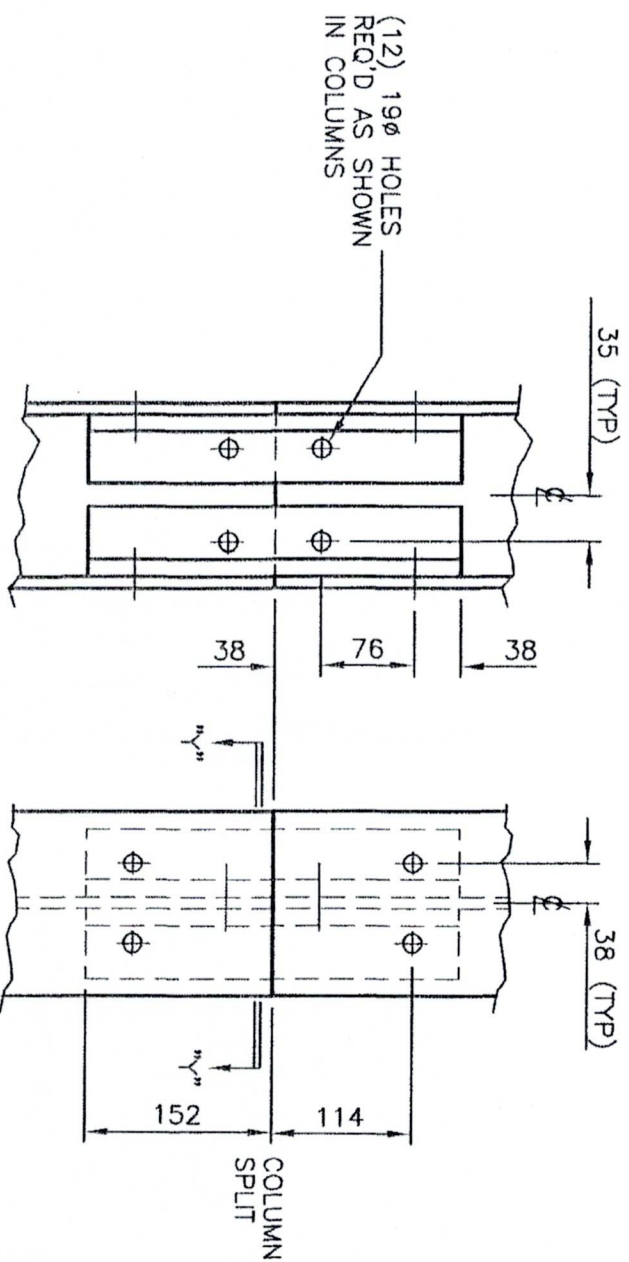
DWG NO. 08-5062

DWN RL CKD BG

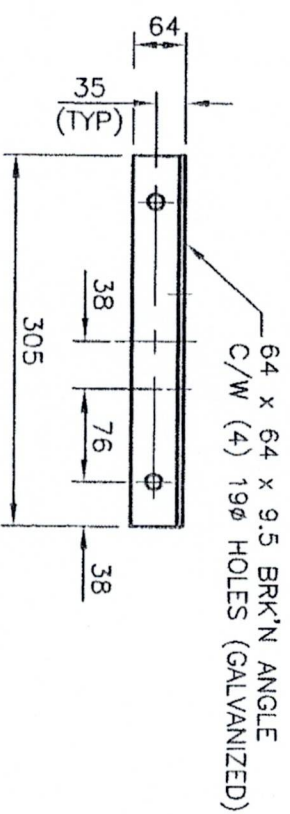
SHEET 15 OF 20

- GENERAL NOTES
- 1) ALL STRUCTURAL STEEL IS G40.21-50W & G40.21-44W
 - 2) ALL HOLES ARE 17 Ø
 - 3) ALL SLOTS ARE 11 x 25

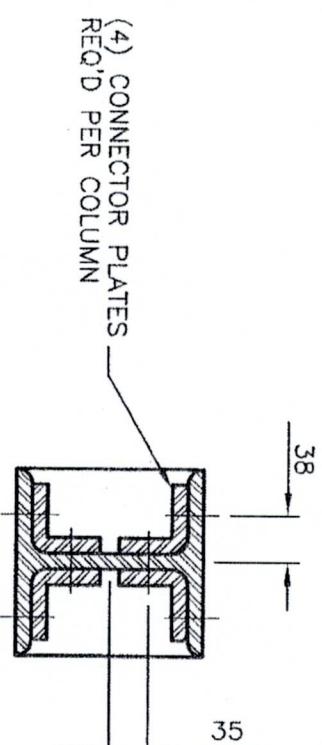
REVISIONS



BOLT PATTERN AT FISH PLATE



CONNECTOR PLATE DETAIL
(24) REQ'D



SECTION "Y-Y"

CERTIFIED
AS BUILT

GENERAL NOTES
ALL STRUCTURAL STEEL IS G40.21-44W

REVISIONS

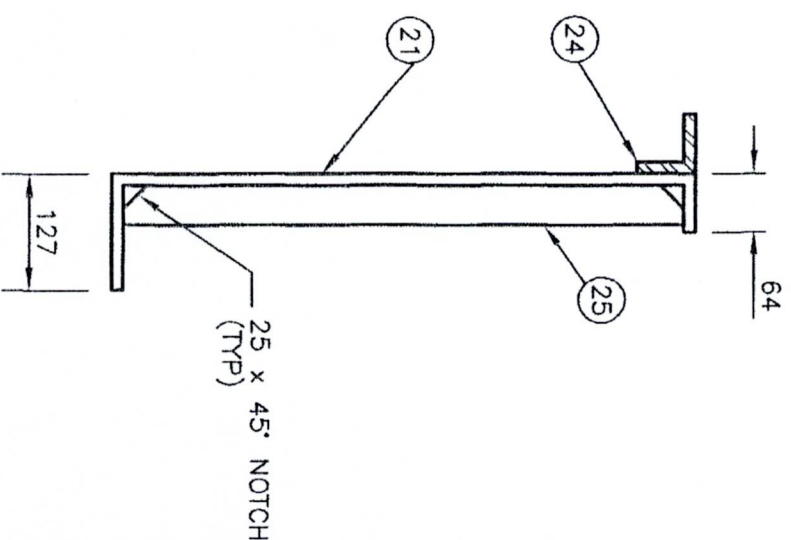
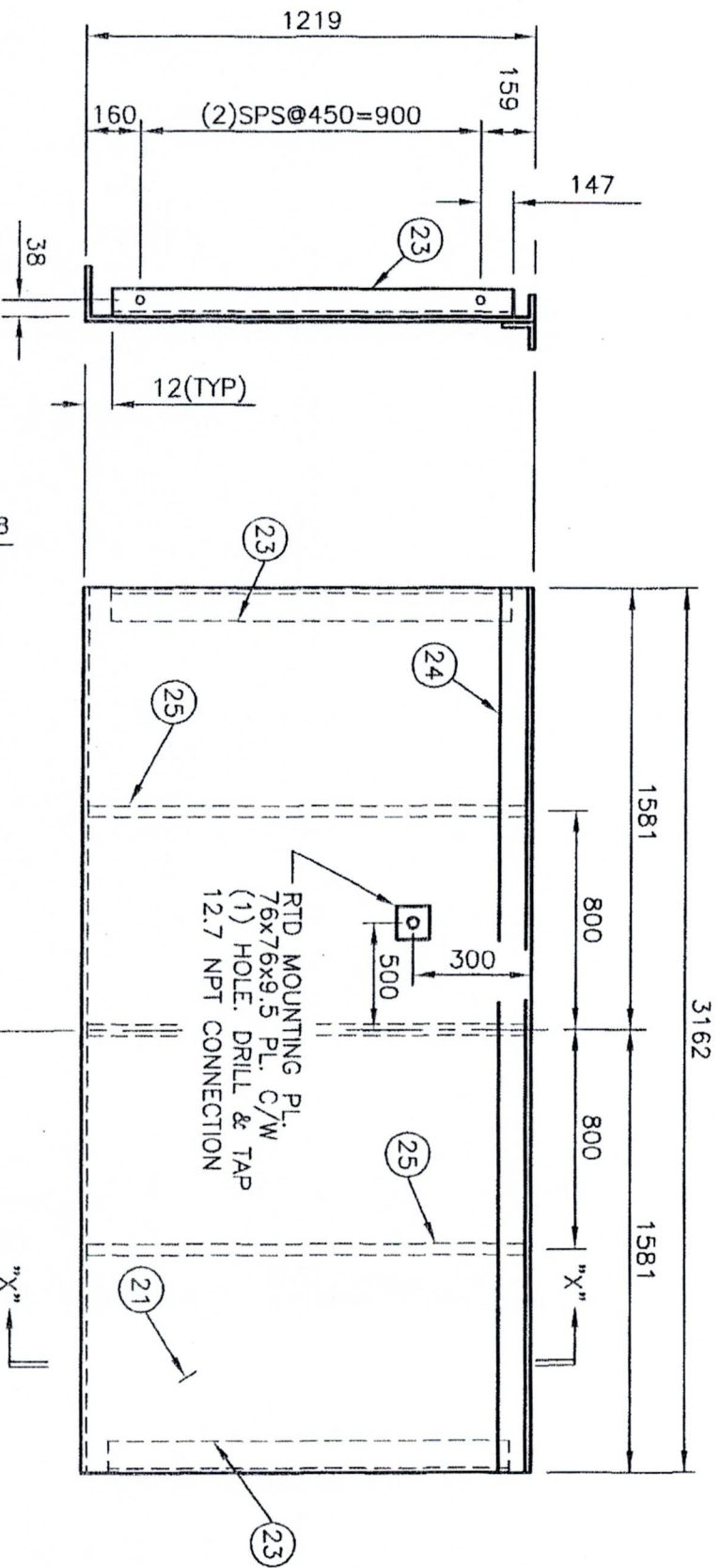
SPLIT COLUMN
CONNECTOR PLATE DETAIL

EXCHANGER INDUSTRIES
CALGARY, ALBERTA

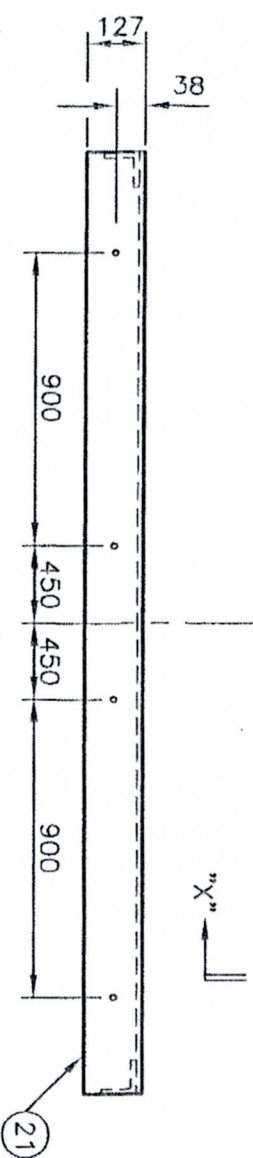
DWG NO. 08-5062

DWN RL CKD BG

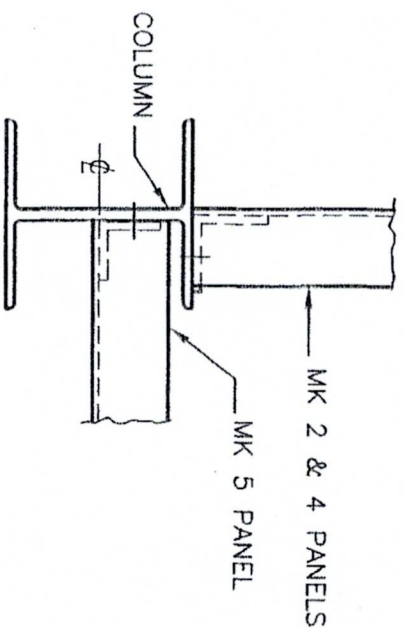
SHEET 16 OF 30



SECTION "X-X"



CERTIFIED
AS BUILT



PANEL LOCATION ON COLUMNS

GENERAL NOTES

- 1) ALL HOLES ARE 17Ø
- 2) ALL SLOTS ARE 11 x 25
- 3) ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011
- 4) WELD TOP AND BOTTOM FLANGES OF PANEL TO COLUMNS

REVISIONS

ITEM	NO.	DESCRIPTION	LENGTH
CUT LIST FOR (1) ONE ASSEMBLY			
27	-	76 x 76 x 6 L	-
26	-	152 CHANNEL @ 12.2kg/m	-
25	3	51 x 12.7 FLAT BAR	1210
24	1	64 x 64 x 6 L	3162
23	2	64 x 64 x 6 L	1195
22	-	BRK'N [GA THK 64 FLG	-
21	1	1219 BRK'N [10 GA THK 127/64 FLG	3162

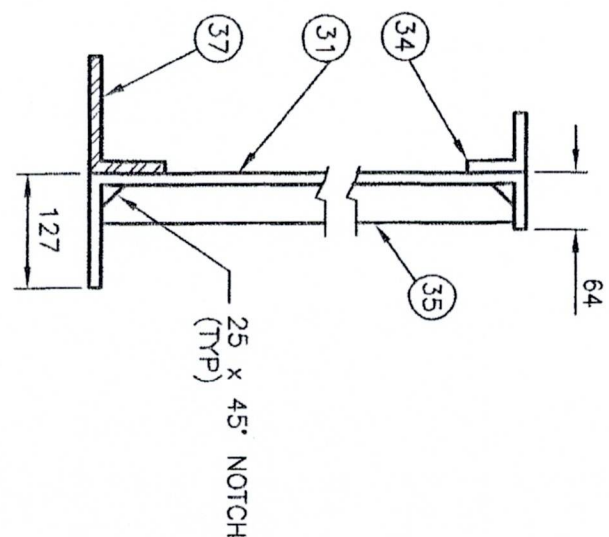
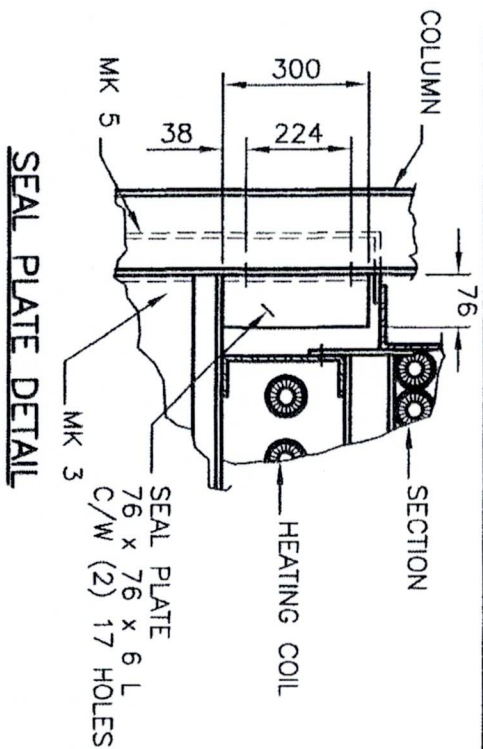
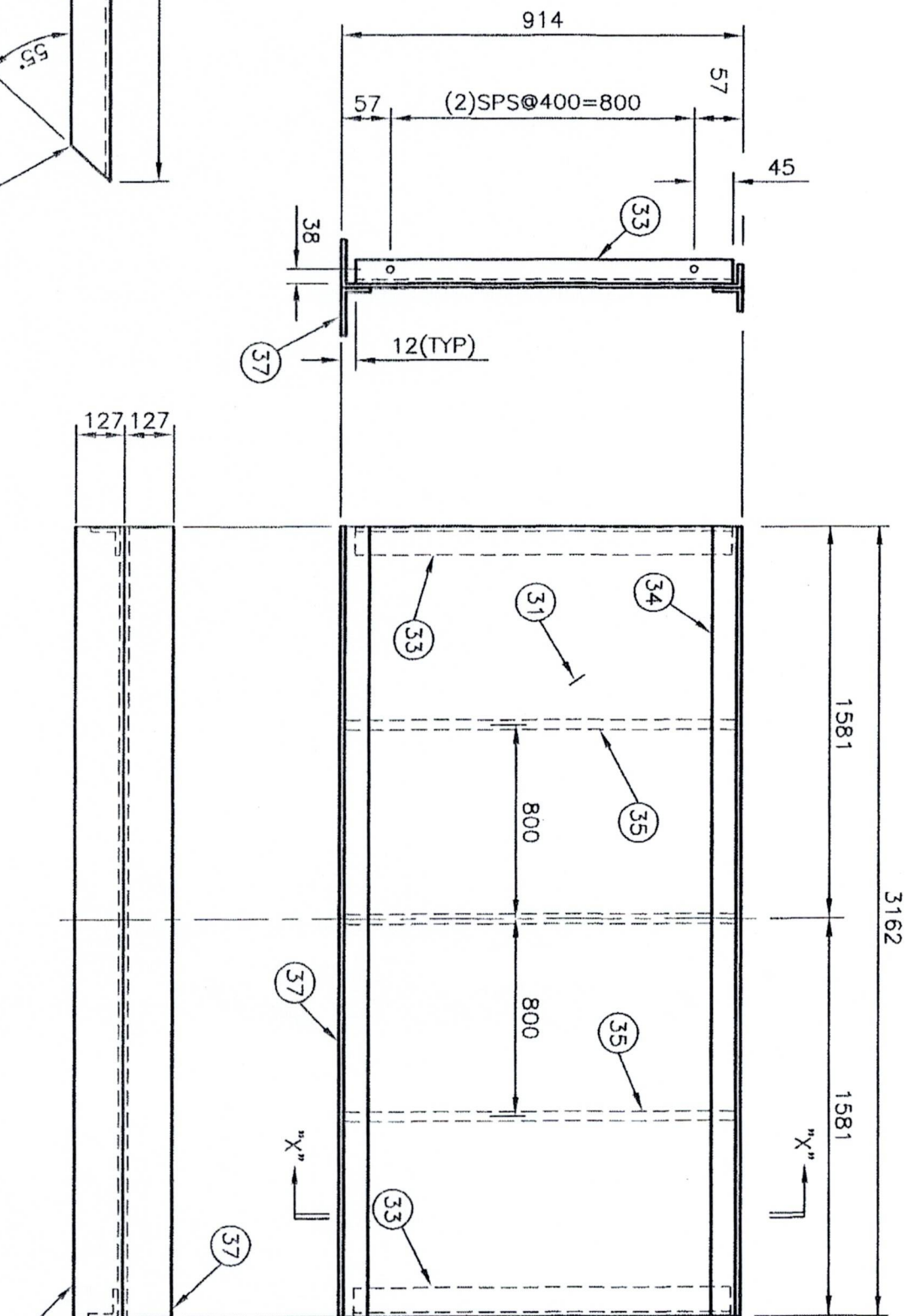
CENTRE FRONT PANEL

ITEM NO 2

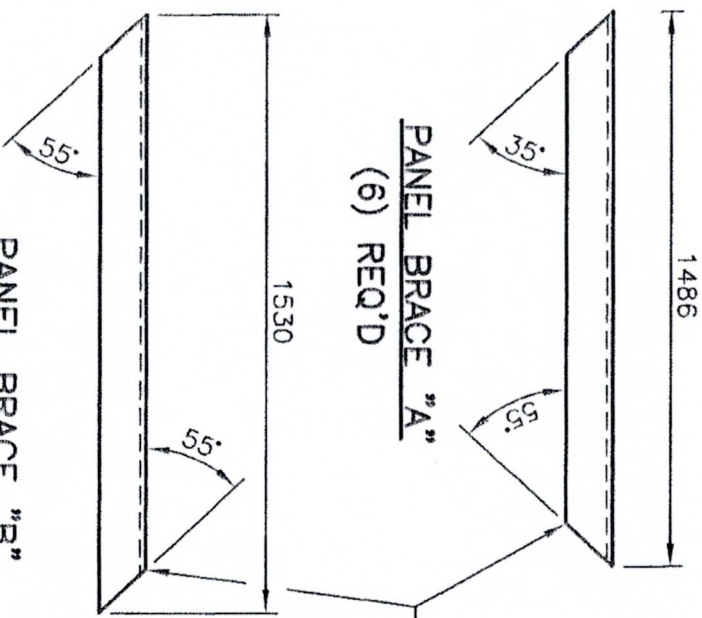
EXCHANGER INDUSTRIES

CALGARY, ALBERTA

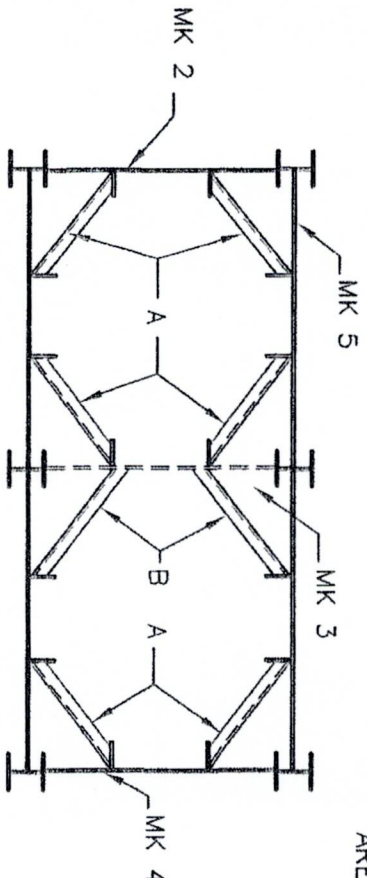
DWG NO. 08-5062



PANEL BRACE "A"
(6) REQ'D



PANEL BRACE "B"
(2) REQ'D (1) R.H. & (1) L.H.



NOTE: WELD BRACES IN PLACE
(25 DOWN FROM TOP OF MK3
PANELS) AFTER FAN DECKS
ARE INSTALLED.

GENERAL NOTES

- 1) ALL HOLES ARE 17Ø
- 2) ALL SLOTS ARE 11 x 25
- 3) ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011
- 4) WELD TOP AND BOTTOM FLANGES OF PANEL TO COLUMNS

REVISIONS

PLAN VIEW

CUT LIST FOR (1) ONE ASSEMBLY			
ITEM	NO.	DESCRIPTION	LENGTH
37	1	127 x 76 x 6 L	3162
36	-	152 CHANNEL @ 12.2 kg/m	-
35	3	51 x 12.7 FLAT BAR	905
34	1	64 x 64 x 6 L	3162
33	2	64 x 64 x 6 L	890
32	-	AIR SEAL -----	-
31	1	914 BRK'N [10 GA THK 127/64 FLG	3162

CERTIFIED
AS BUILT

SECTION "X-X"

CENTRE INTERNAL

PANEL

ITEM NO 3



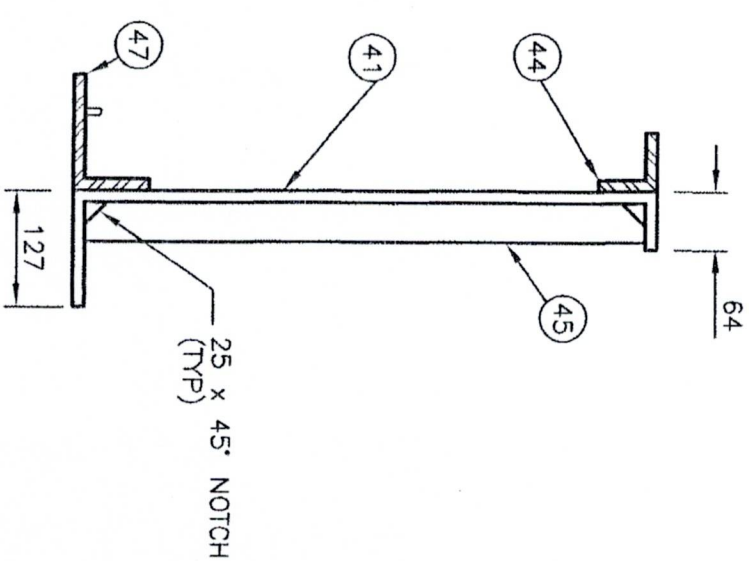
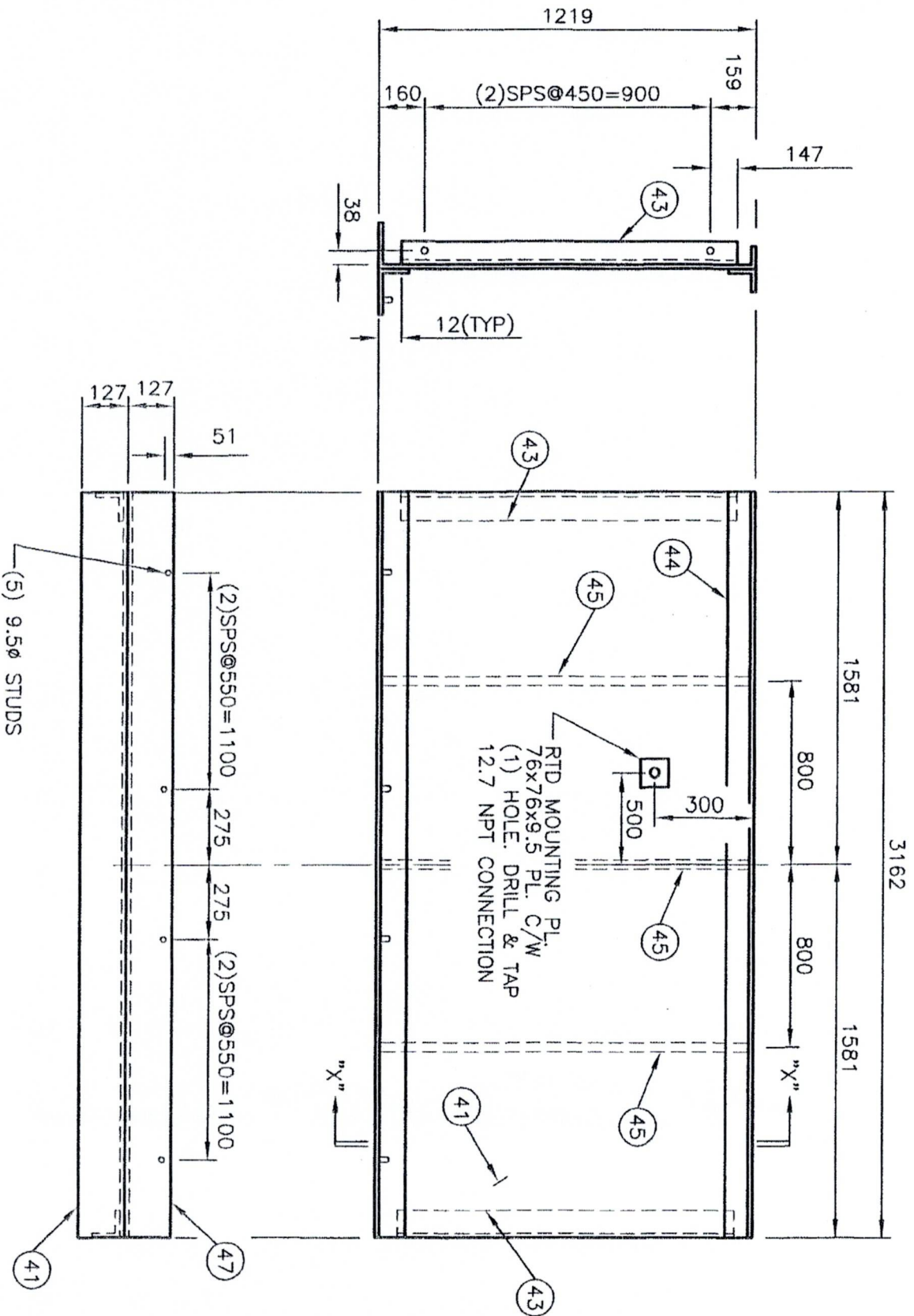
EXCHANGER INDUSTRIES

CALGARY, ALBERTA

DWG NO. 08-5062

DWN RI LCKN RC

SHEET 18 OF 20



SECTION "X-X"

CERTIFIED
AS BUILT

ITEM	NO.	DESCRIPTION	LENGTH
47	1	127 x 76 x 6 L	3162
46	-	152 CHANNEL @ 12.2kg/m	-
45	3	51 x 12.7 FLAT BAR	1210
44	1	64 x 64 x 6 L	3162
43	2	64 x 64 x 6 L	1195
42	-	BRK'N [GA THK 64 FLG	-
41	1	1219 BRK'N [10 GA THK 127/64 FLG	3162

CUT LIST FOR (1) ONE ASSEMBLY

REVISIONS

GENERAL NOTES

- ALL HOLES ARE 17Ø
- ALL SLOTS ARE 11 x 25
- ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011
- WELD TOP AND BOTTOM FLANGES OF PANEL TO COLUMNS

CENTRE REAR PANEL

ITEM NO 4

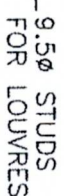
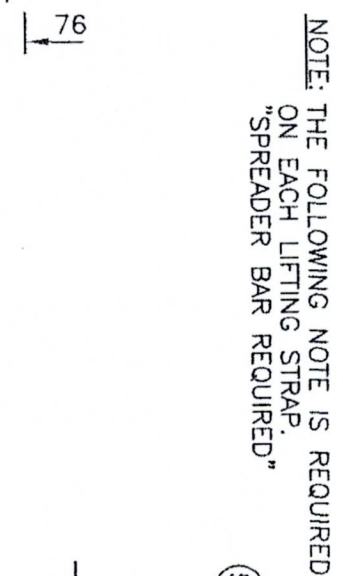
EXCHANGER INDUSTRIES
CALGARY, ALBERTA



DWG NO. 08-5062

DWN RI LKXN RG I

CHECK 10 07 20



CUT LIST FOR (4) FOUR ASSEMBLIES

CUT LIST FOR (4) FOUR ASSEMBLIES

LENGTH

VIEW "B-B"

REVISIONS

GENERAL NOTES

- 1) ALL HOLES ARE 17Ø
- 2) ALL SLOTS ARE 11 x 25
- 3) ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011
- 4) WELD TOP AND BOTTOM FLANGES OF PANEL TO COLUMNS

CENTRE SIDE PANEL

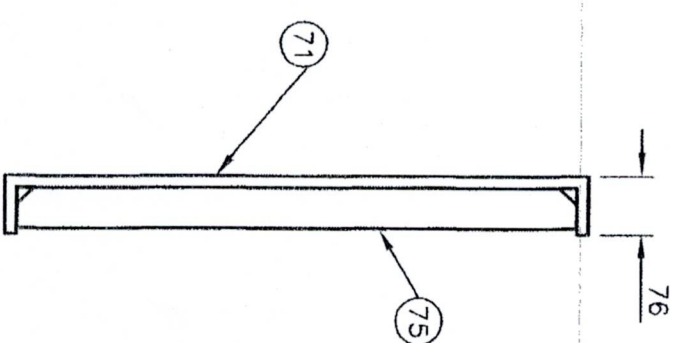
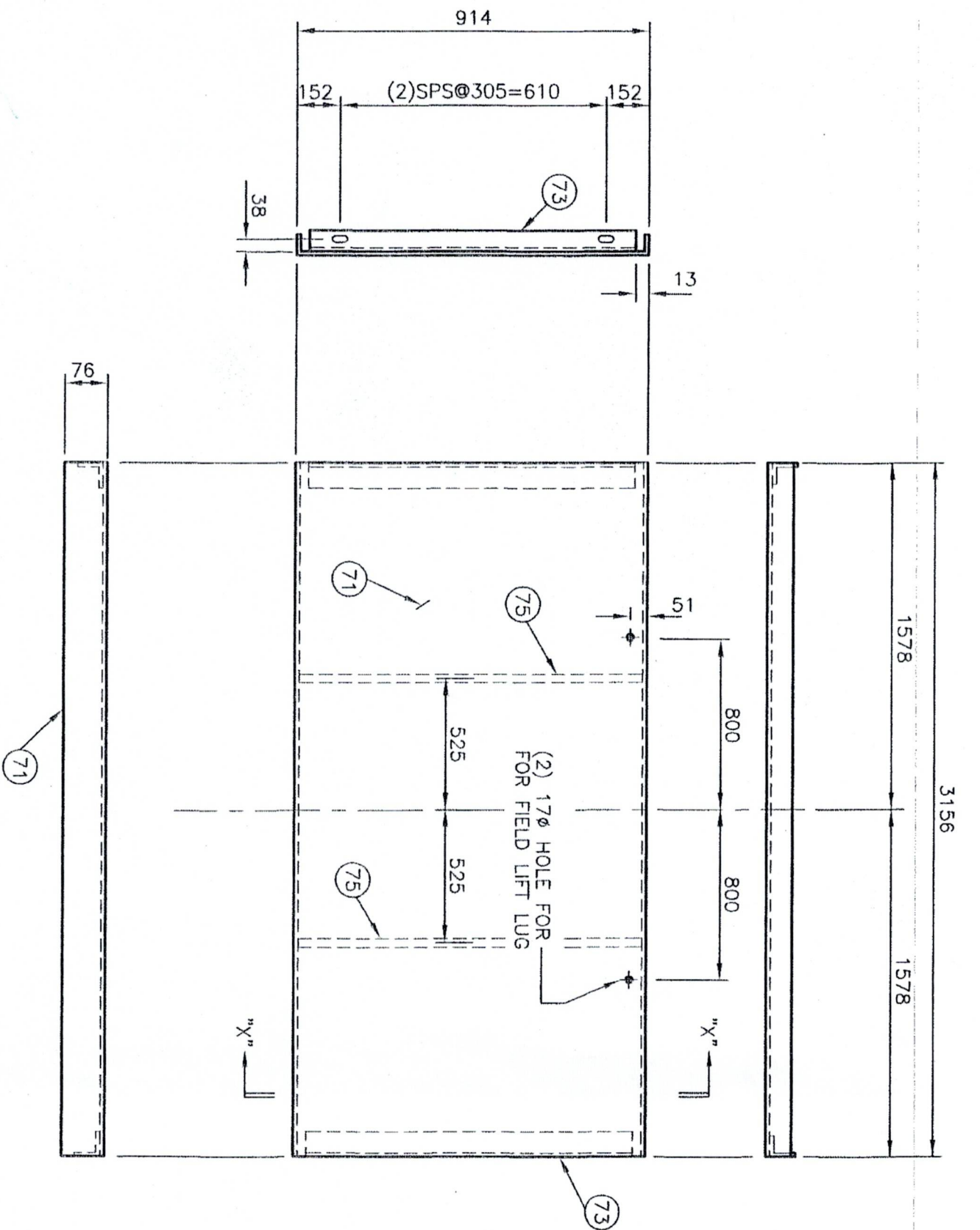
ITEM NO 5

EXCHANGER INDUSTRIES

CALGARY, ALBERTA

DWN	RL	CKD	BG
-----	----	-----	----

SHEET 20 OF 39



SECTION "X-X"

CERTIFIED
AS BUILT

ITEM	NO.	DESCRIPTION	LENGTH
CUT LIST FOR (1) ONE ASSEMBLY			
75	2	51 x 6 FLAT BAR	908
74	-	76 x 76 x 6 L	-
73	2	64 x 64 x 6 L	888
72	-	64 x 64 x 6 L	-
71	1	914 BRK'N PANEL 12 GA THK 76 FLG	3156

GENERAL NOTES

- 1) ALL HOLES ARE 17Ø
- 2) ALL SLOTS ARE 17 x 25
- 3) ALL STRUCTURAL STEEL IS C40.21-44W & ASTM A1011

REVISIONS

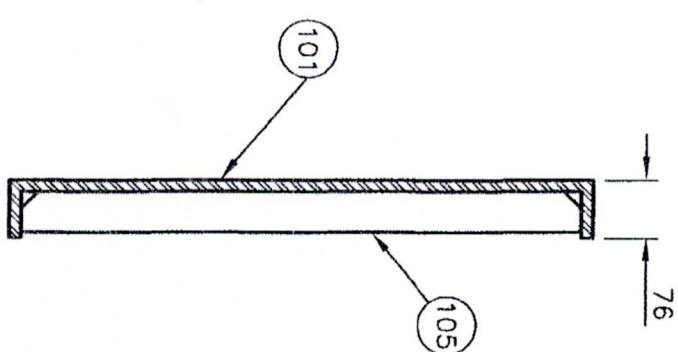
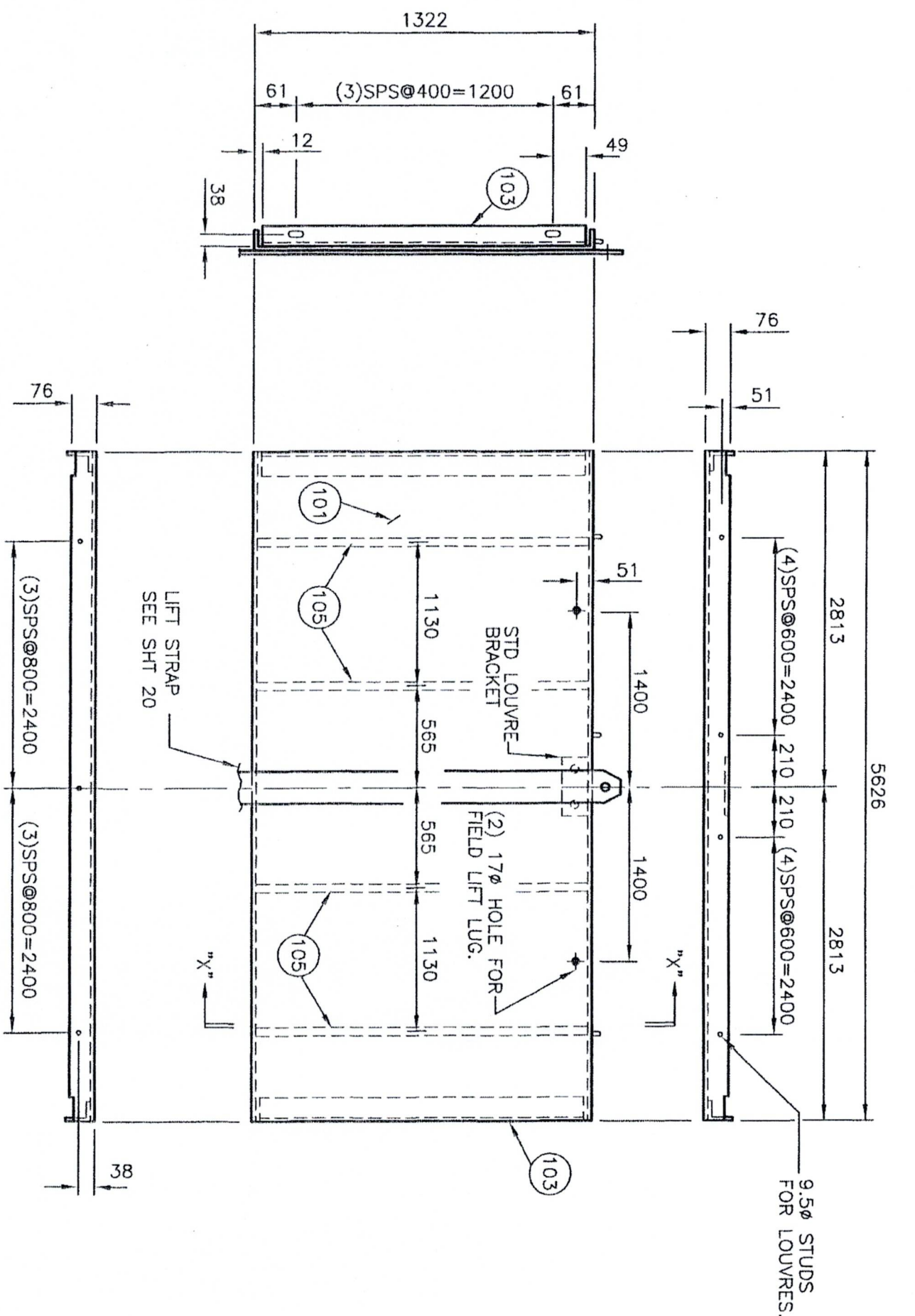
TOP FRONT PANEL

ITEM NO 7

EXCHANGER INDUSTRIES
CALGARY, ALBERTA



DWG NO. 08-5062



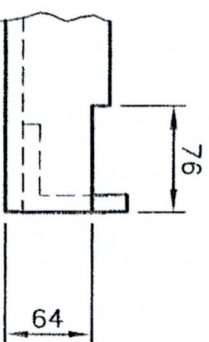
SECTION "X-X"

CERTIFIED
AS BUILT

ITEM	NO.	DESCRIPTION	LENGTH
CUT LIST FOR (4) FOUR ASSEMBLIES			
105	16	51 x 6 FLAT BAR	1315
104	-	76 x 76 x 6 L	-
103	8	64 x 64 x 6 L	1298
102	-	64 x 64 x 6 L	-
101	4	1322 BRK'N PANEL 12 GA THK 76 FLG	5626

COPING DETAIL

(TYP BOTH TOP & BOTTOM FLANGES)



GENERAL NOTES

- 1) ALL HOLES ARE 17Ø
- 2) ALL SLOTS ARE 17 x 25
- 3) ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011

REVISIONS

TOP SIDE PANEL

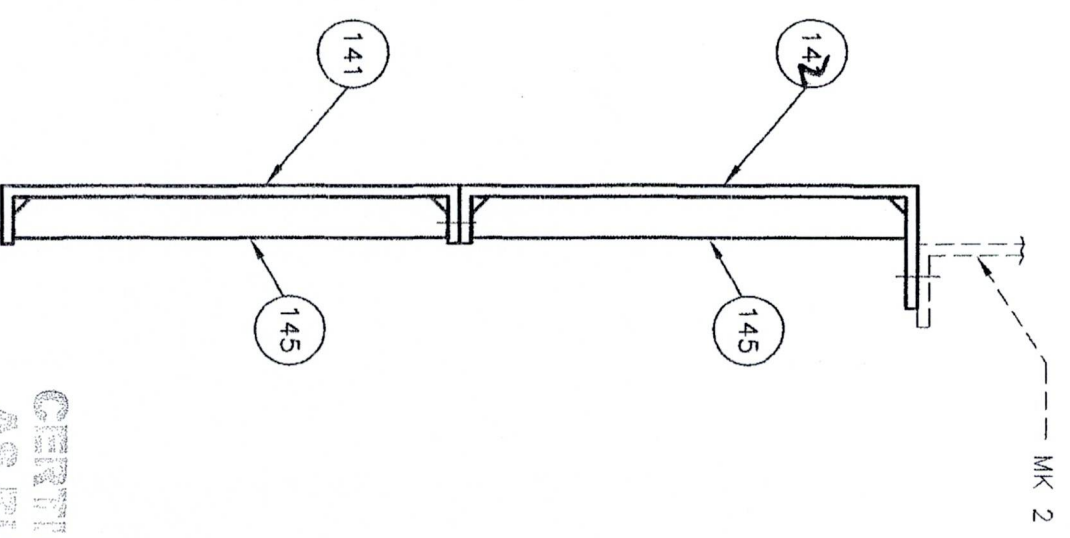
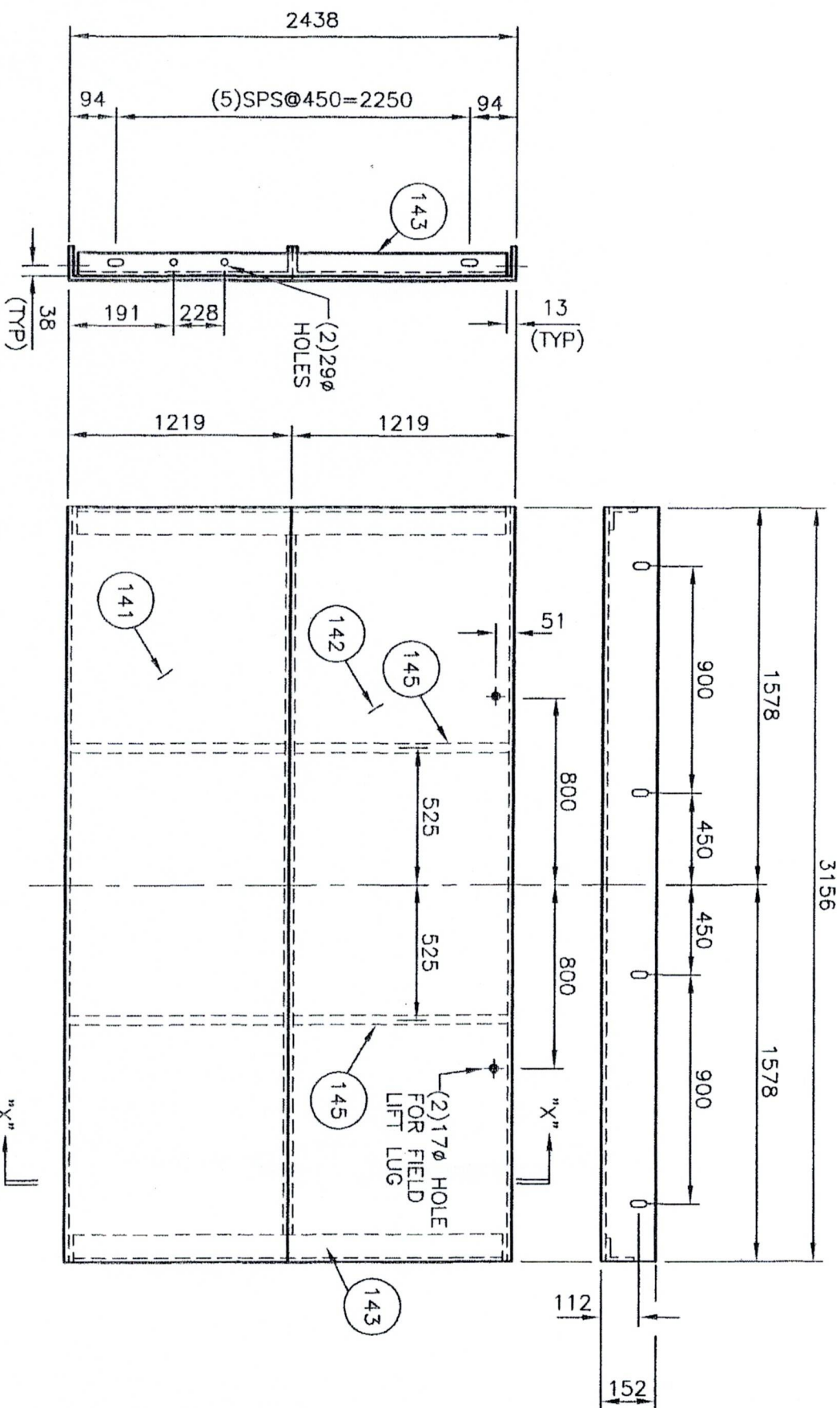
ITEM NO 10

EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062

DWN RL CKD BG I

SHEET 22 OF 30



CERTIFIED
AS BUILT

SECTION "X-X"

ITEM	NO.	DESCRIPTION	LENGTH
CUT LIST FOR (1) ONE ASSEMBLY			
145	4	51 x 6 FLAT BAR	1212
144	-	76 x 76 x 6 L	-
143	2	64 x 64 x 6 L	2412
142	1	1219 BRK'N PANEL	3156
141	1	12 GA THK 76 FLG	3156

GENERAL NOTES

ALL HOLES ARE 17Ø

2) ALL SLOTS ARE 17 x 25

3) ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011

REVISIONS

LOWER FRONT PANEL

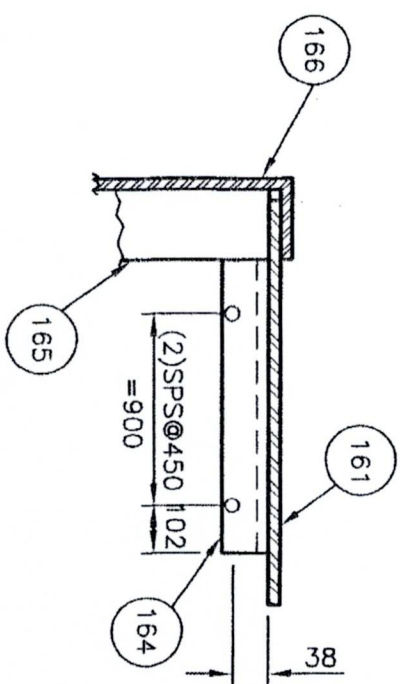
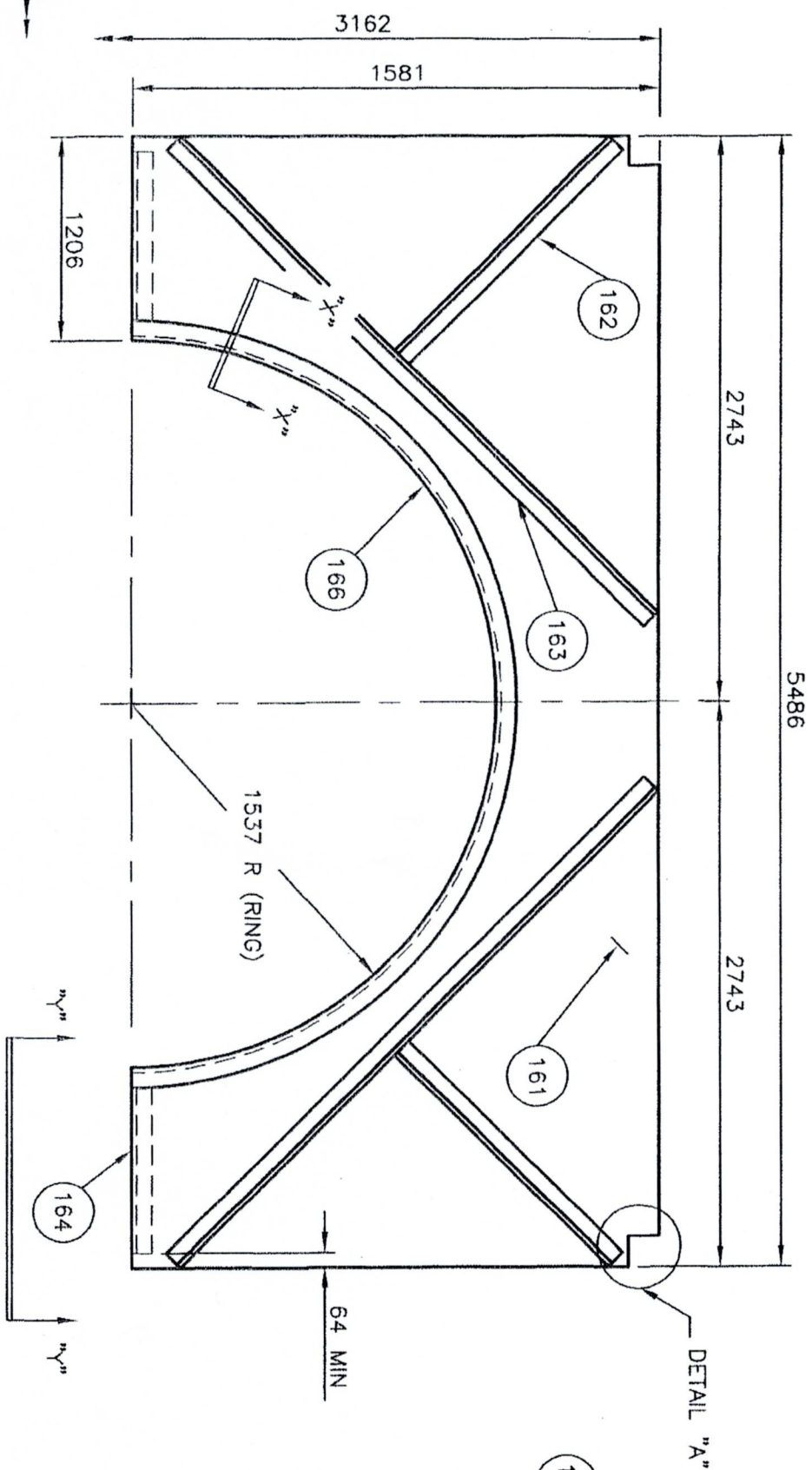
ITEM NO 14



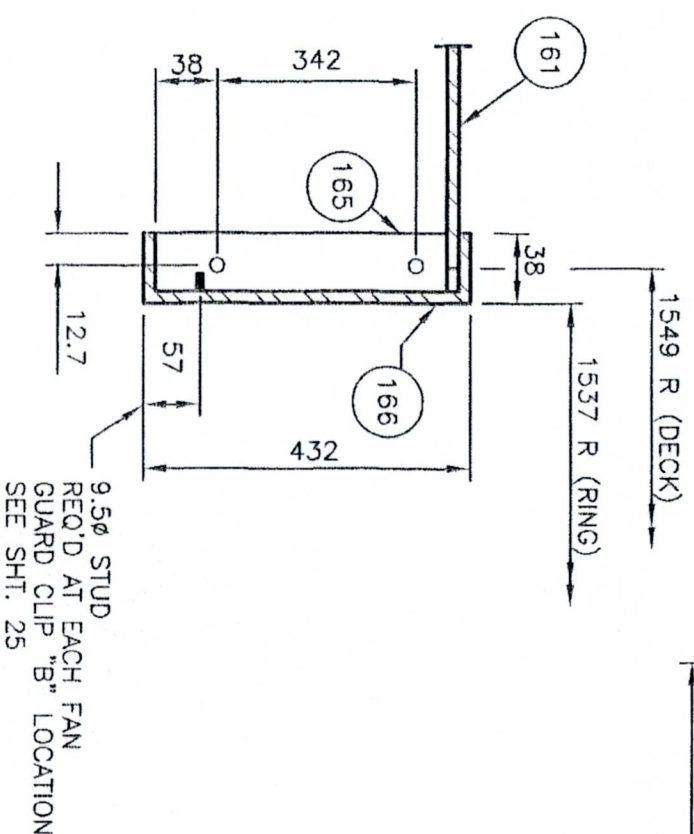
EXCHANGER INDUSTRIES

CALGARY, ALBERTA

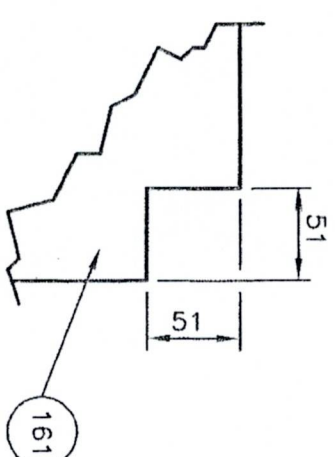
DWG NO. 08-5062



SECTION "Y-Y"



SECTION "X-X"



DETAIL "A"

ITEM	NO.	DESCRIPTION	LENGTH
CUT LIST FOR (4) FOUR HALF DECKS			
166	4	432 BRK'N CHANNEL	4888
165	8	5 THK / 38 FLANGE	
164	8	38 x 6 FLAT BAR	418
163	8	51 x 51 x 6 L	1104
163	8	51 x 51 x 6 L	2480
162	8	51 x 51 x 6 L	1000
161	8	12 GA. SHEET (1.2x2.4)	23.78 SQ M

GENERAL NOTES

- ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011
- STITCH WELD FAN DECK TO FAN RING
- ALL SEAMS WELDED BOTH SIDES
- ALL HOLES ARE 11 DIA.

REVISIONS

FAN DECK DETAIL

ITEM NO. 16



EXCHANGER INDUSTRIES

CALGARY, ALBERTA

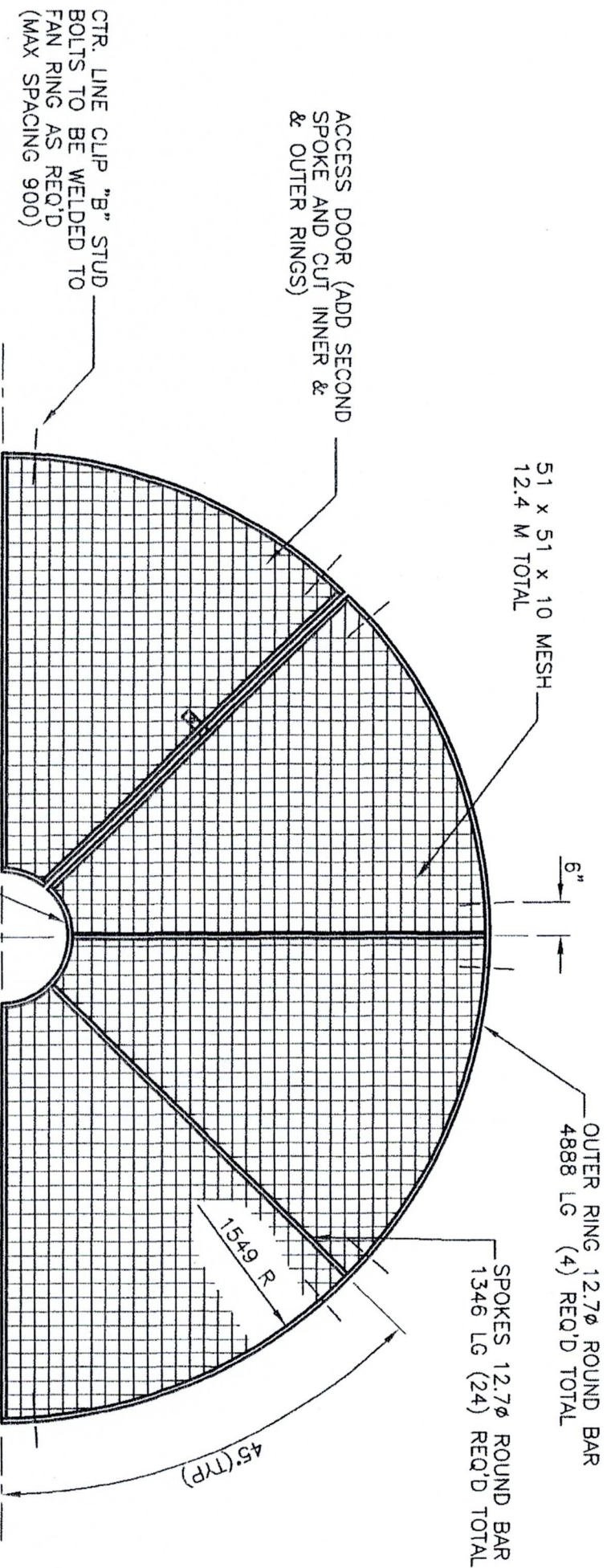
DWG NO. 08-5062

DWN RI LKRN RC

SHEET 01 OF 20

CELTIC
AS BUILT

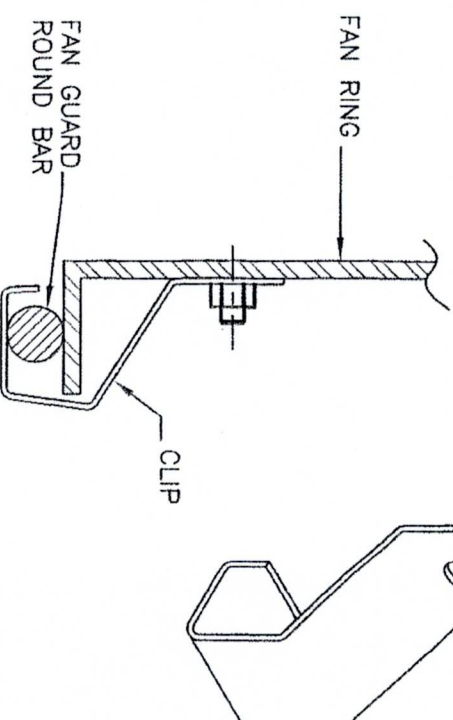
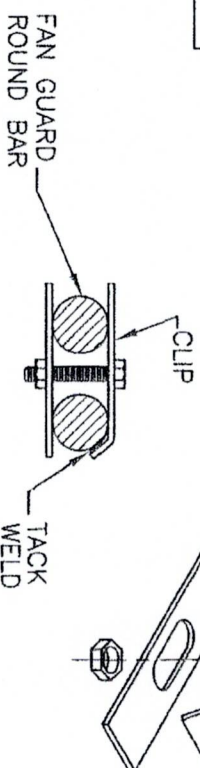
NOTE: ALL COMPONENTS TO BE GALVANIZED AFTER FABRICATION (CUT DOOR BEFORE GALVANIZING)



CLIP "A"
(2) GUARDS REQ'D WITH (1) CLIP
(2) GUARDS REQ'D WITH NO CLIP

FAN GUARD DETAIL
(4) REQ'D
(2) REQ'D AS SHOWN
(2) REQ'D OPP. HAND

NOTE: ACCESS DOORS SHOULD BE LOCATED ABOVE
DAVIT ARM POCKET AND MOTOR.



CLIP "A" CONCEPT DRAWING

CLIP "B" CONCEPT DRAWING

GENERAL NOTES

ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011

REVISIONS

FAN GUARD DETAIL

ITEM NO. 17



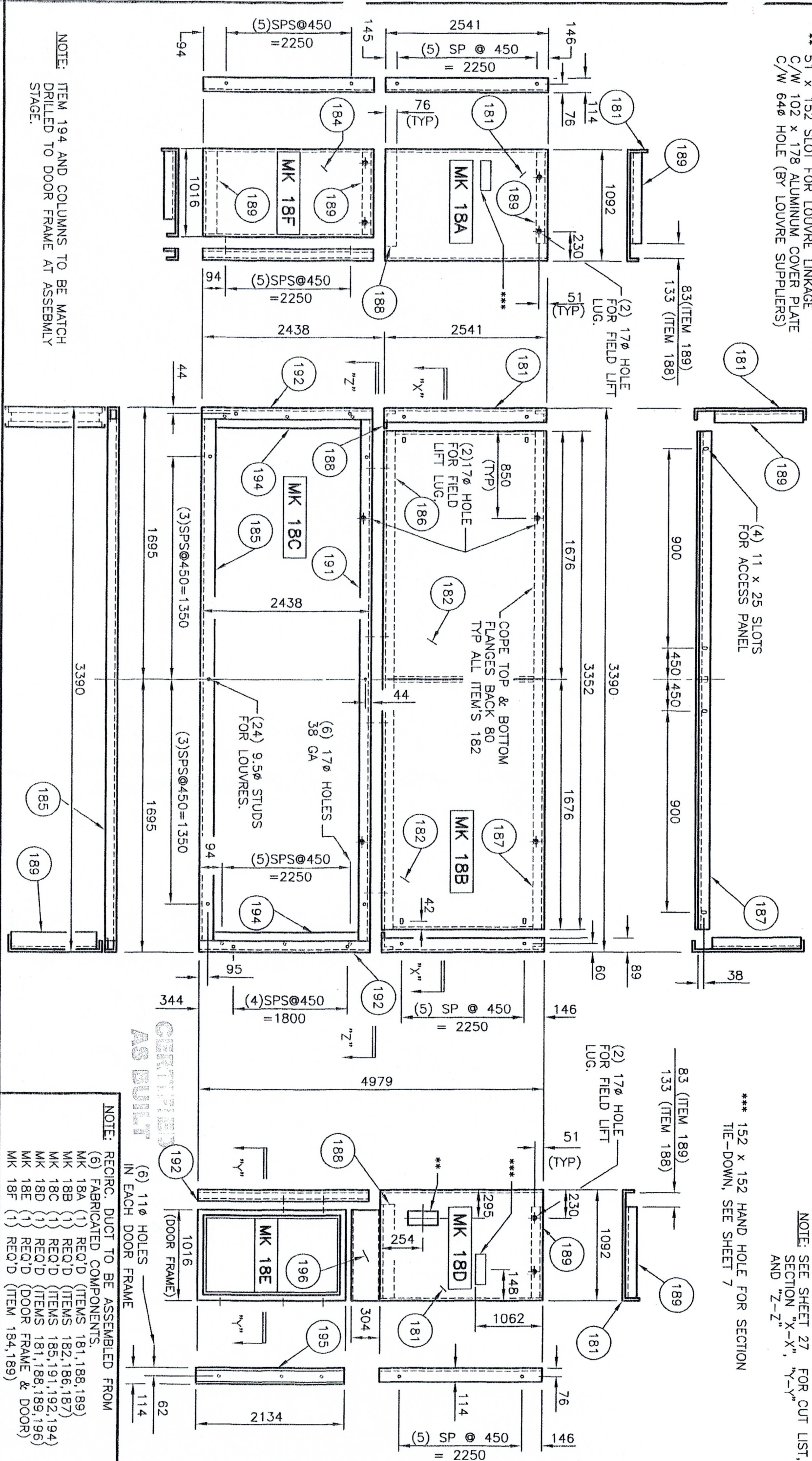
EXCHANGER INDUSTRIES

CALGARY, ALBERTA

DWG NO. 08-5062

** 51 x 152 SLOT FOR LOUVER LINKAGE
C/W 102 x 178 ALUMINUM COVER PLATE
C/W 64Ø HOLE (BY LOUVER SUPPLIERS)

NOTE: SEE SHEET 27 FOR CUT LIST,
SECTION "X-X", "Y-Y" AND "Z-Z"
*** 152 x 152 HAND HOLE FOR SECTION
TIE-DOWN, SEE SHEET 7



NOTE: ITEM 194 AND COLUMNS TO BE MATCH
DRILLED TO DOOR FRAME AT ASSEMBLY
STAGE.

GENERAL NOTES

- 1) ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011
- 2) ALL HOLES ARE 17Ø
- 3) ALL SLOTS ARE 17 x 51

REVISIONS

RECIRCULATION DUCT

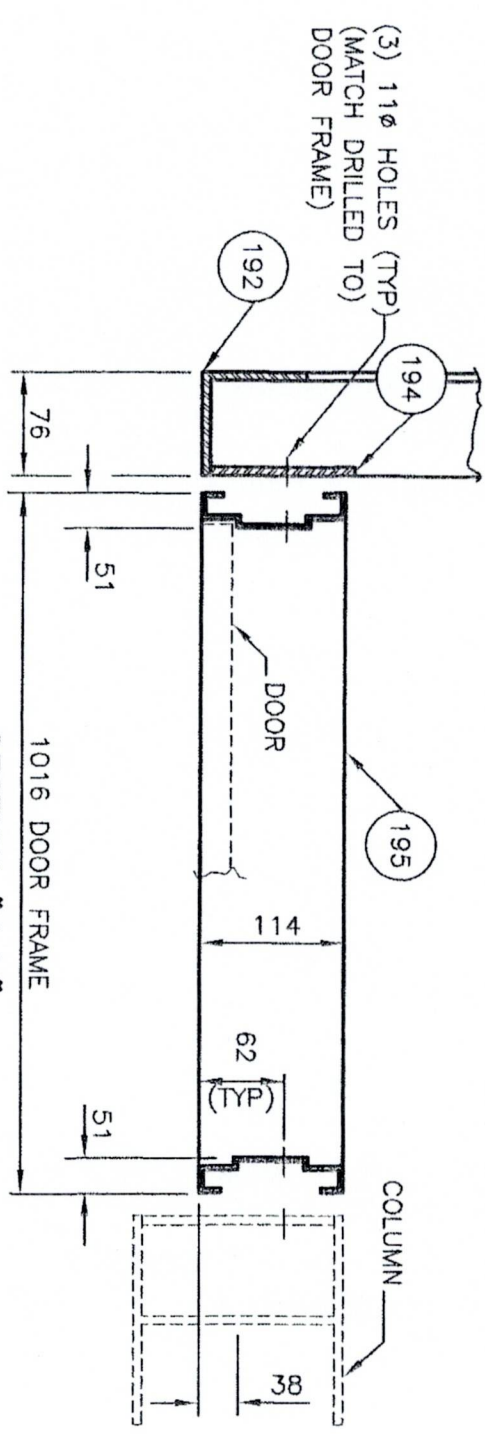
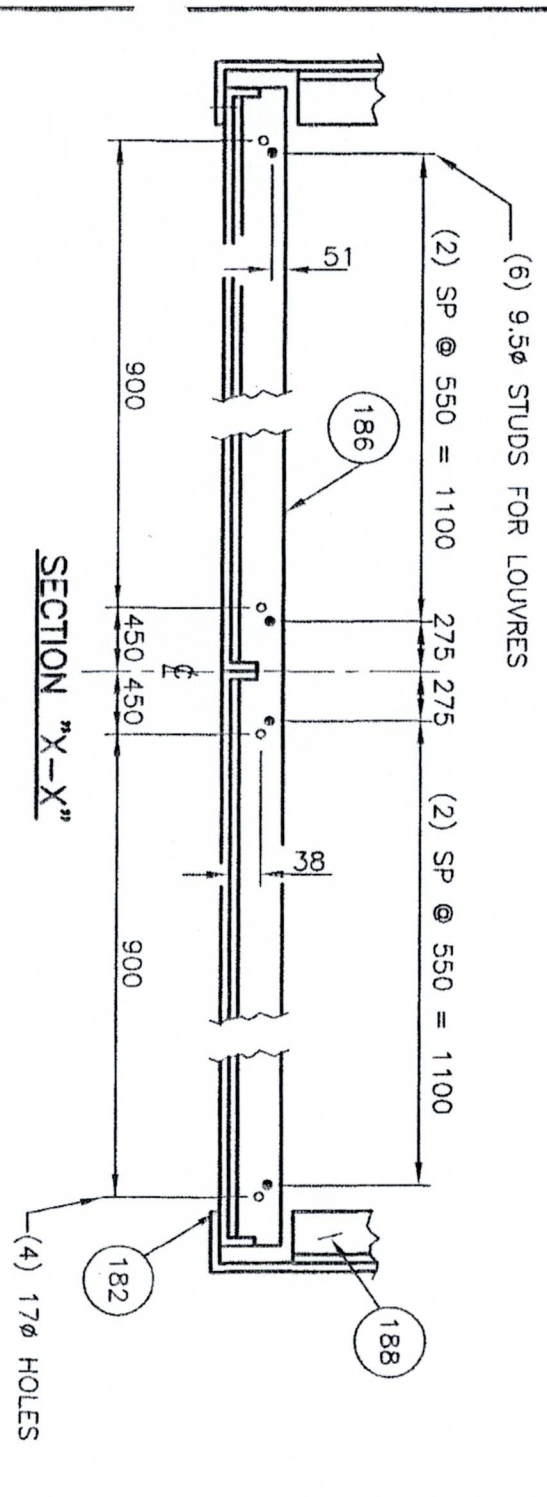
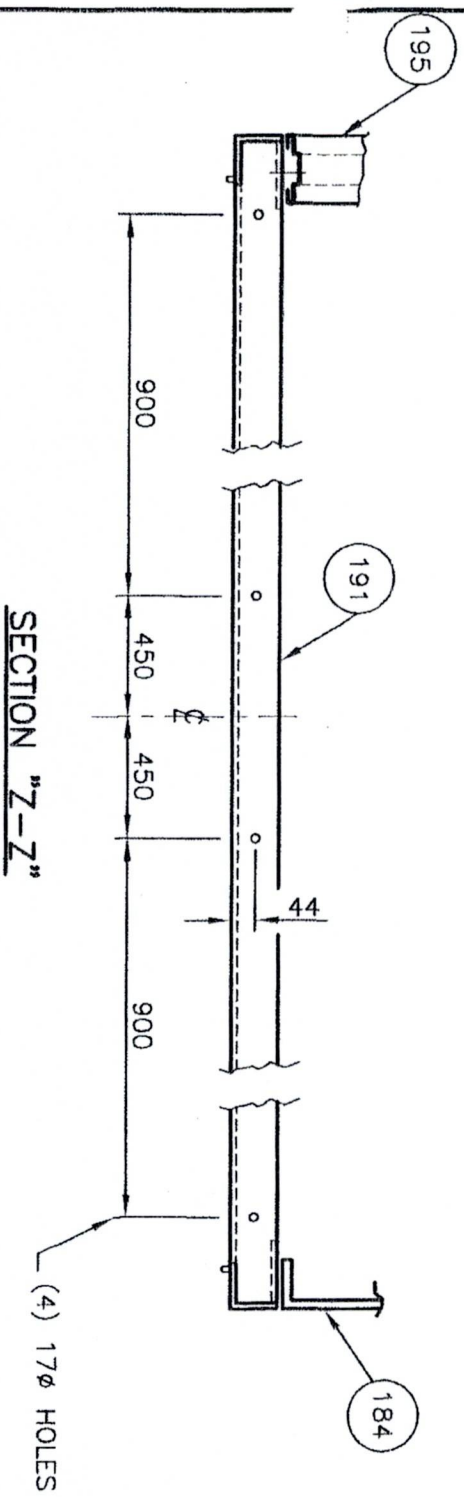
ITEM NO. 18

EXCHANGER INDUSTRIES

CALGARY, ALBERTA

DWG NO. 08-5062





197	-	64 x 64 x 6 L	-
196	1	304 BRKN' [12 GA THK C/W 64 FLANGES	1016
195	1	DOOR FRAME 2134x1016 C/W DOOR 2032x914	-
194	2	127 x 6 FLAT BAR	2438
193	-	152 CHAN @ 12.2kg/m	-
192	2	76 x 76 x 6 L	2438
191	1	76 x 76 x 6 L	3238
190	-	152 CHAN. @ 12.2kg/m	-
189	2/2	76 x 76 x 6 L	1003/1010
188	2	127 x 76 x 6 L	952
187	1	76 x 76 x 6 L	3352
186	1	127 x 76 x 6 L	3352
185	1	127 x 76 x 6 L	3238
184	1	1016 BRKN' [12 GA THK C/W 76/114 FLANGE	2438
183	-	- BRKN' [12 GA THK C/W 89/114 FLANGES	-
182	2	1676 BRKN' [12 GA THK C/W 64 FLANGES	2541
181	2	1092 BRKN' [12 GA THK C/W 89/114 FLANGES	2541
ITEM	NO.	DESCRIPTION	LENGTH

CUT LIST FOR (1) ONE ASSEMBLY

GENERAL NOTES

- 1) ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011
- 2) ALL HOLES ARE 17Ø
- 3) ALL SLOTS ARE 17 x 25

REVISIONS

SECTION 'Y-Y'

CERTIFIED
AS BUILT

RECIRCULATION DUCT

ITEM NO. 18

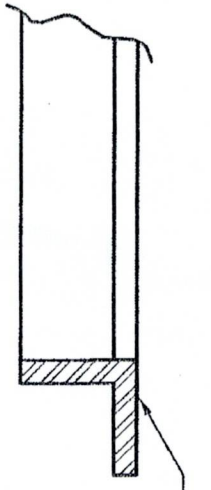
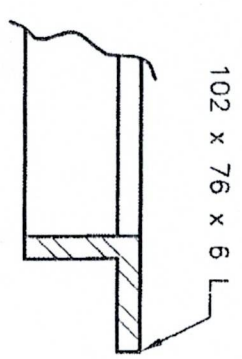
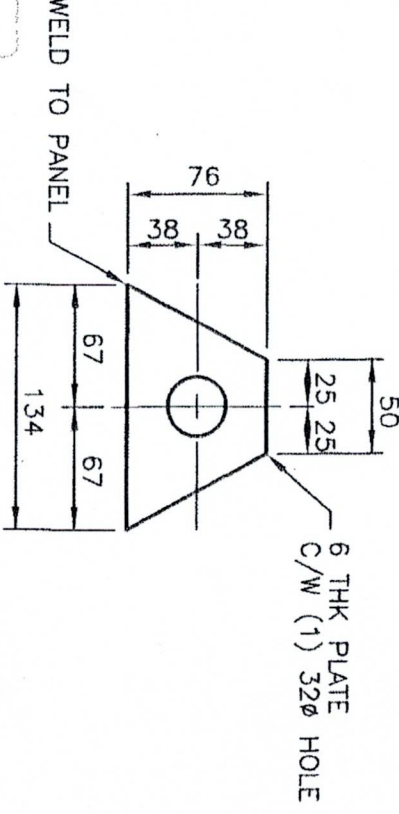
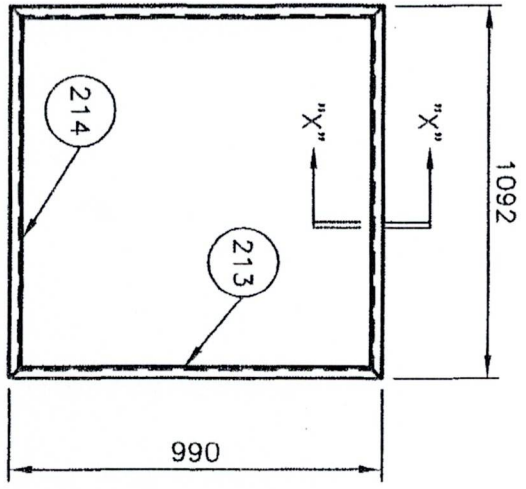
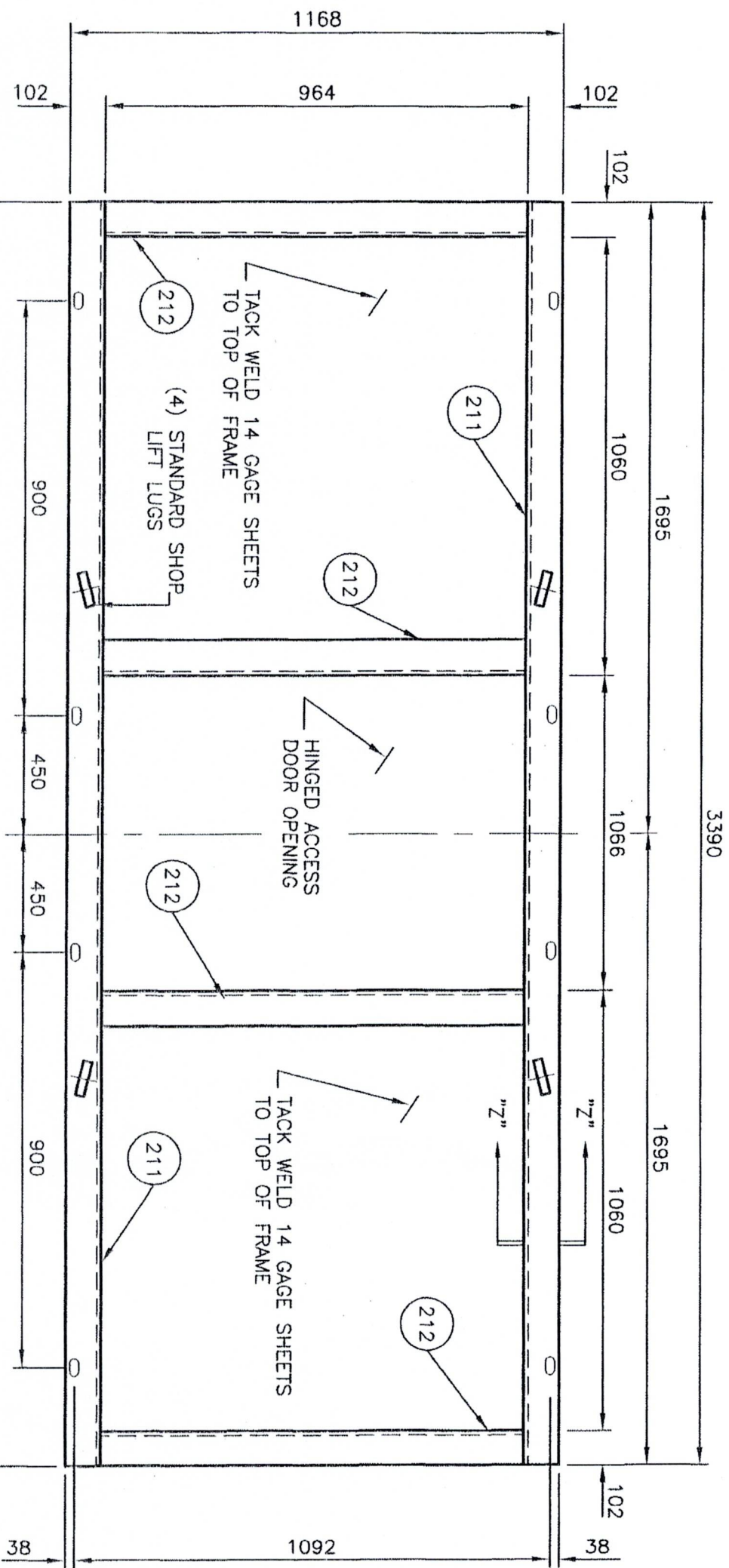


EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062

DWNI RI LOWN RG I

SHEET 07 OF 20



ITEM	NO.	DESCRIPTION	LENGTH
212	4	102 x 76 x 6 L	964
211	2	102 x 76 x 6 L	3390
214	2	38 x 38 x 5 L	990
213	2	38 x 38 x 5 L	990
214	2	38 x 38 x 5 L	1092
214	1	14 GA. SHEET	1040x940
2	2	14 GA. SHEET	990x984

CUT LIST FOR (1) ONE ASSEMBLY

BOLTED ACCESS PANEL

ITEM NO. 21



EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062

GENERAL NOTES

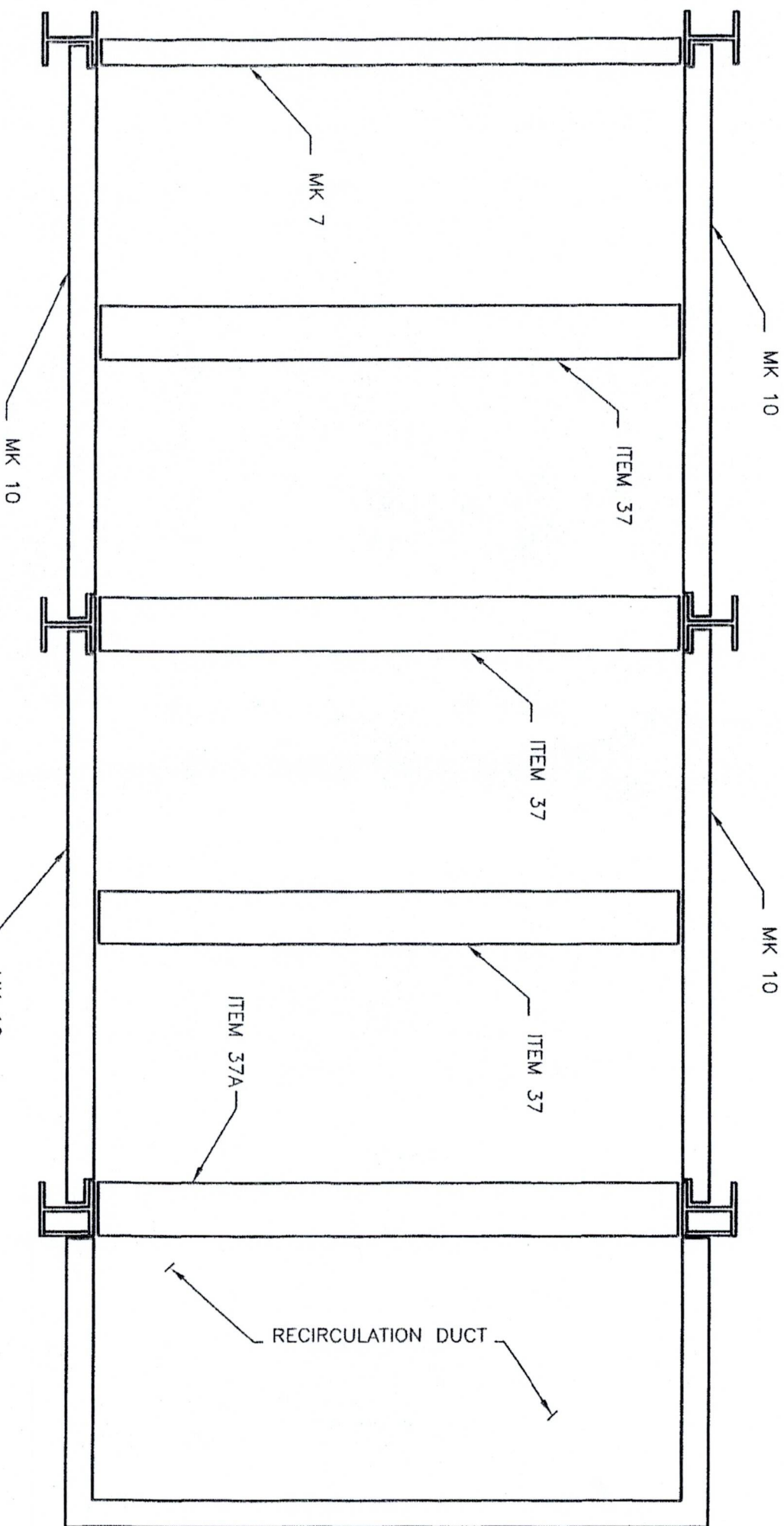
- 1) ALL HOLES ARE 17Ø
- 2) ALL SLOTS ARE 11 x 25
- 3) ALL STRUCTURAL STEEL IS G40.21-44W & ASTM A1011

REVISIONS

DWN RI LCKD RQ 1

SHEET 08 OF 20

FRONT



PLAN VIEW

CERTIFIED
AS BUILT

REVISIONS

GENERAL ARRANGEMENT
TOP LOUVRE SUPPORTS

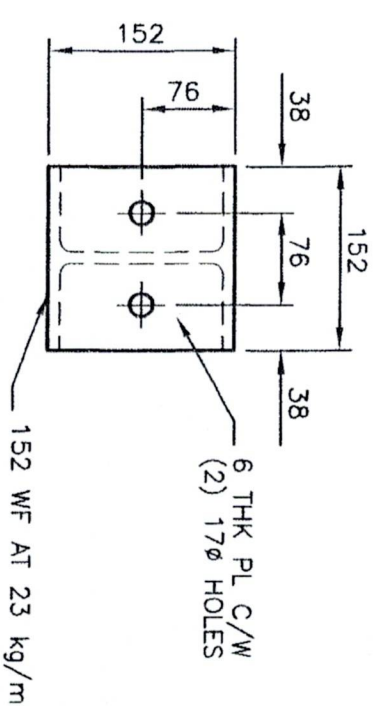


EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062

DWGN RI LOWN RC I

CUTTT 20 20 20



1950

	8	6 THK PLATE	152 x 152
	-	6 THK PLATE	152 x 137
37B	-	152 WF AT 23 kg/m	-
37/37A	4	152 WF AT 23 kg/m	3144
ITEM	NO.	DESCRIPTION	LENGTH

CUT LIST FOR (1) ONE ASSEMBLY

GENERAL NOTES

1) ALL STRUCTURAL STEEL IS G40.21-50W & G40.21-44W

2) ALL SLOTS ARE 11 X 25

REVISIONS

TOP LOUVRE SUPPORTS

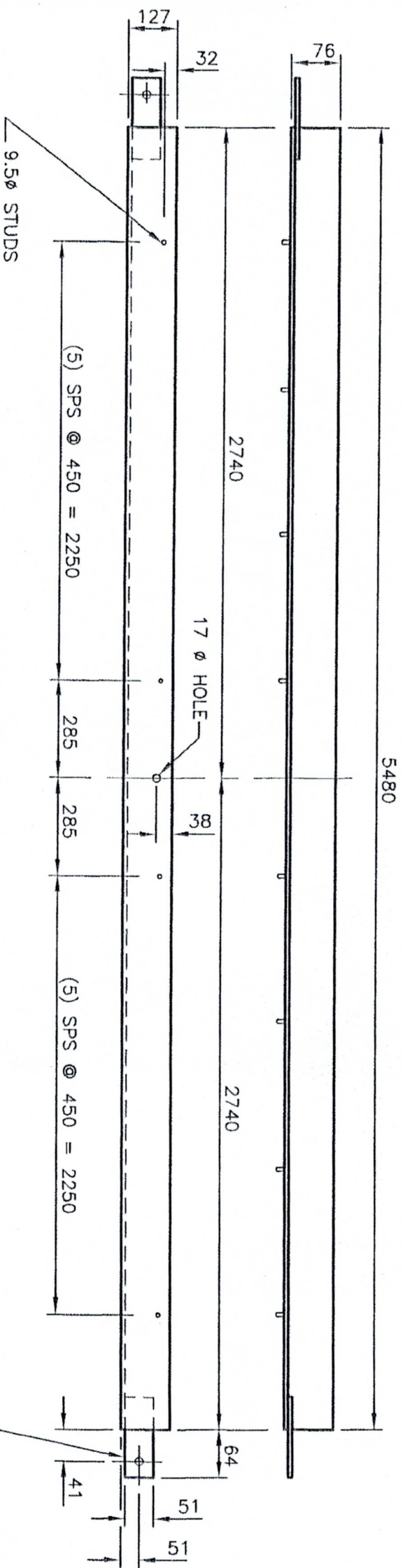
ITEM NO. 37

EXCHANGER INDUSTRIES
CALGARY, ALBERTA
DWG NO. 08-5062

DWG NO. 08-5062

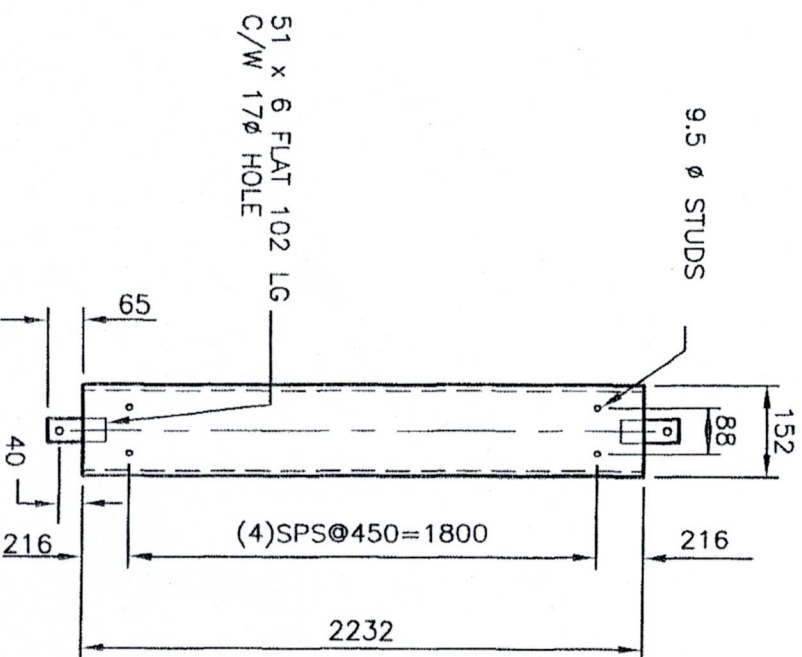
NAME	RI	CVS	RC
...	...	...	...

2 11 22 21 22



SIDE LOUVRE SUPPORT
MK 39A NO. REQ'D: (4)

51 x 102 x 6 FLAT C/W
 17 Ø HOLE (8) REQ'D



VERTICAL LOUVRE SUPPORT
MK 39B NO. REQ'D: (4)

ITEM	NO.	DESCRIPTION	LENGTH
39B	4	152 CHANNEL @12.2KG/M	2232
39A	4	127 x 76 x 6 L	5480
39	-	127 x 76 x 6 L	-

CUT LIST FOR (4) FOUR ASSEMBLIES

GENERAL NOTES
 1) ALL STRUCTURAL STEEL IS G40.21-44W
 2) ALL SLOTS ARE 11 x 25

REVISIONS

LOUVRE SUPPORTS

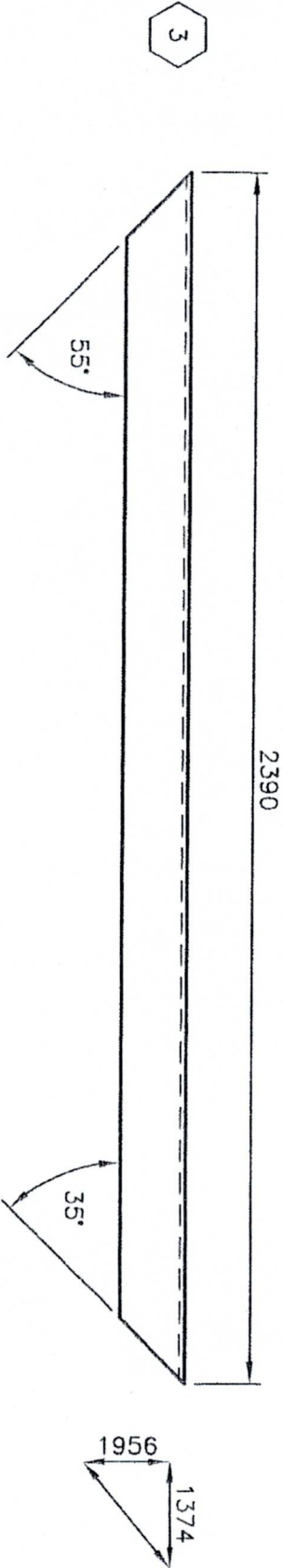
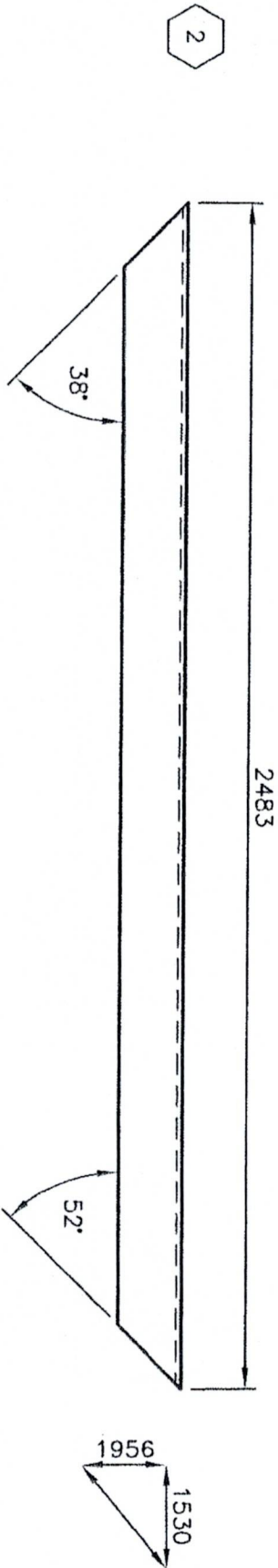
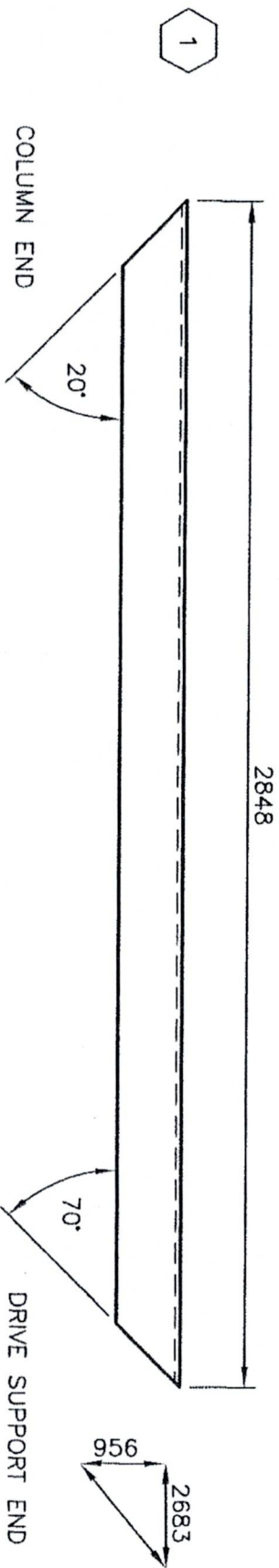
ITEM NO. 39



EXCHANGER INDUSTRIES
 CALGARY, ALBERTA

DWG NO. 08-5062

CERTIFIED
 AS BUILT



MATERIAL: 64 x 64 x 9.5 L

STD. NO.	NO. REQ'D	LOCATION
1	8	COLUMNS TO DRIVE SUPPORT
2	4	COLUMN TO PANELS (MK 3,4)
3	8	COLUMNS TO PANELS (MK 5)

GENERAL NOTES
ALL STRUCTURAL STEEL IS G40.21-44W

REVISIONS

SWAY BRACE DETAIL

ITEM NO. 33



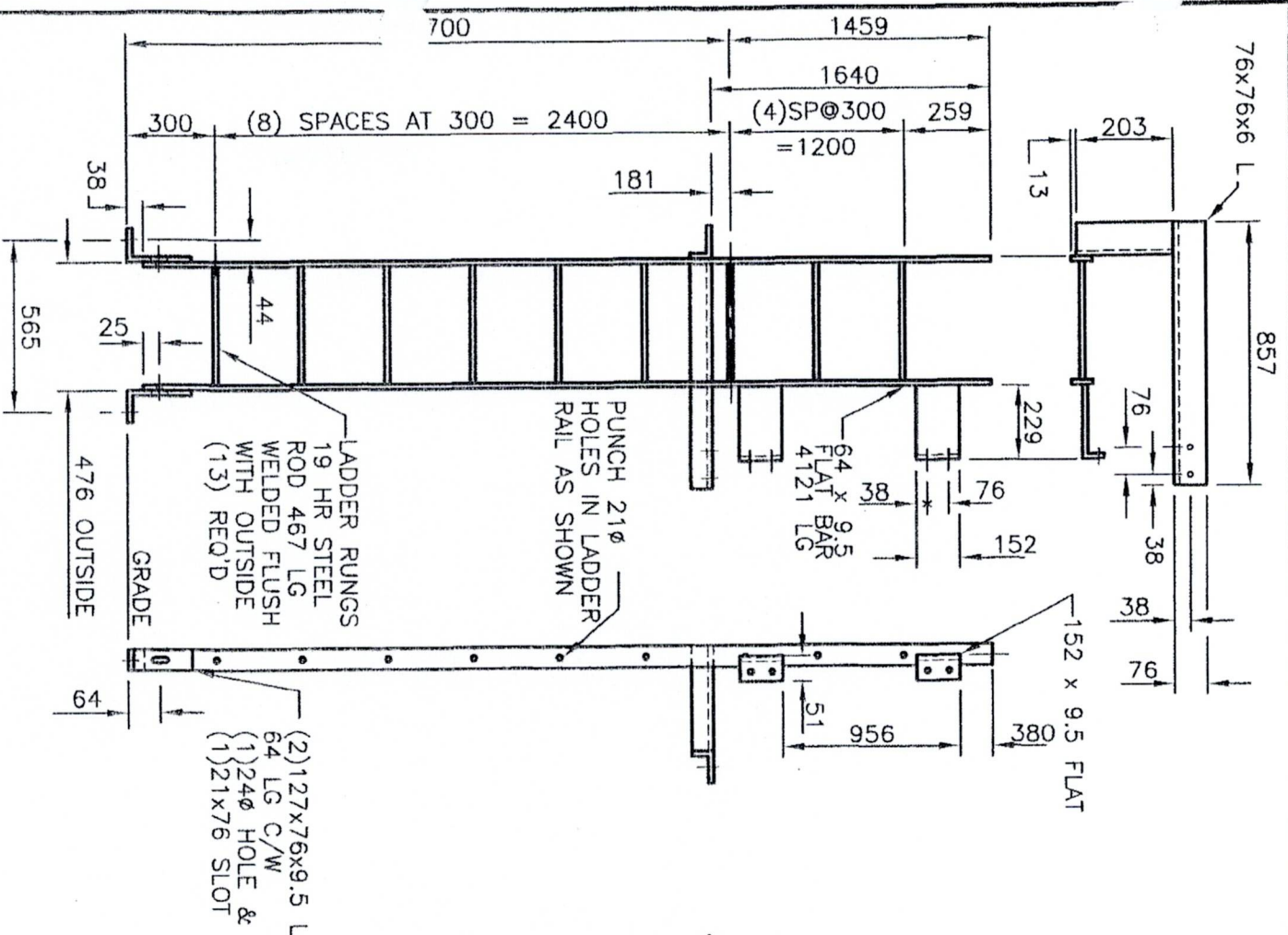
EXCHANGER INDUSTRIES
CALGARY, ALBERTA

DWG NO. 08-5062

DWN RL CKD RG I

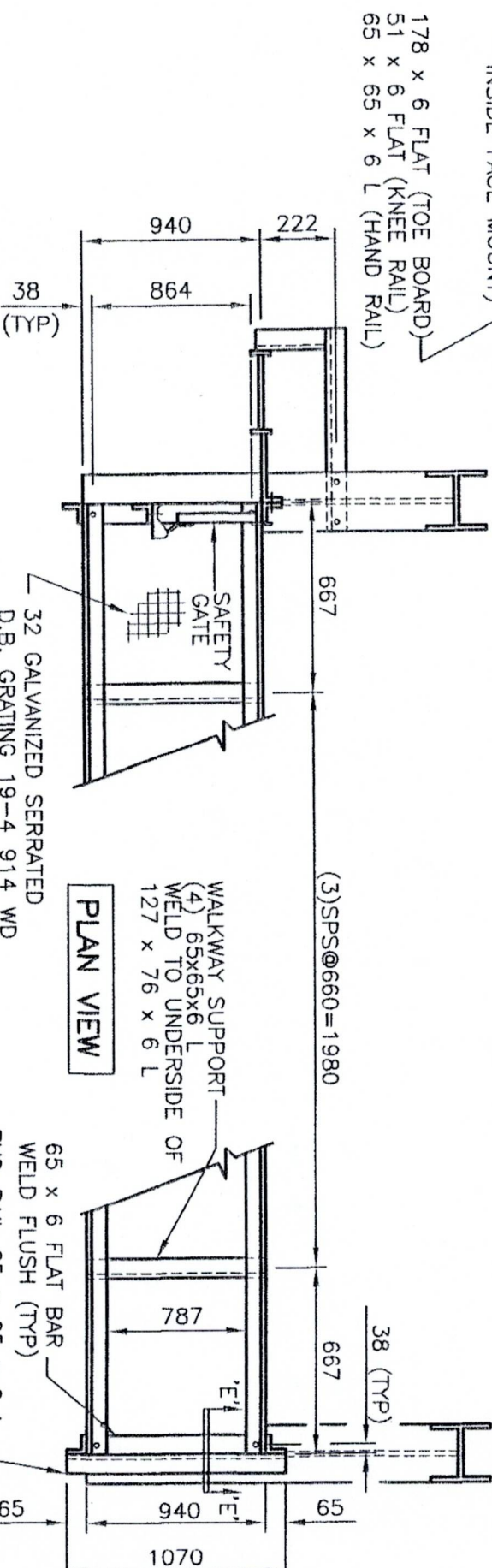
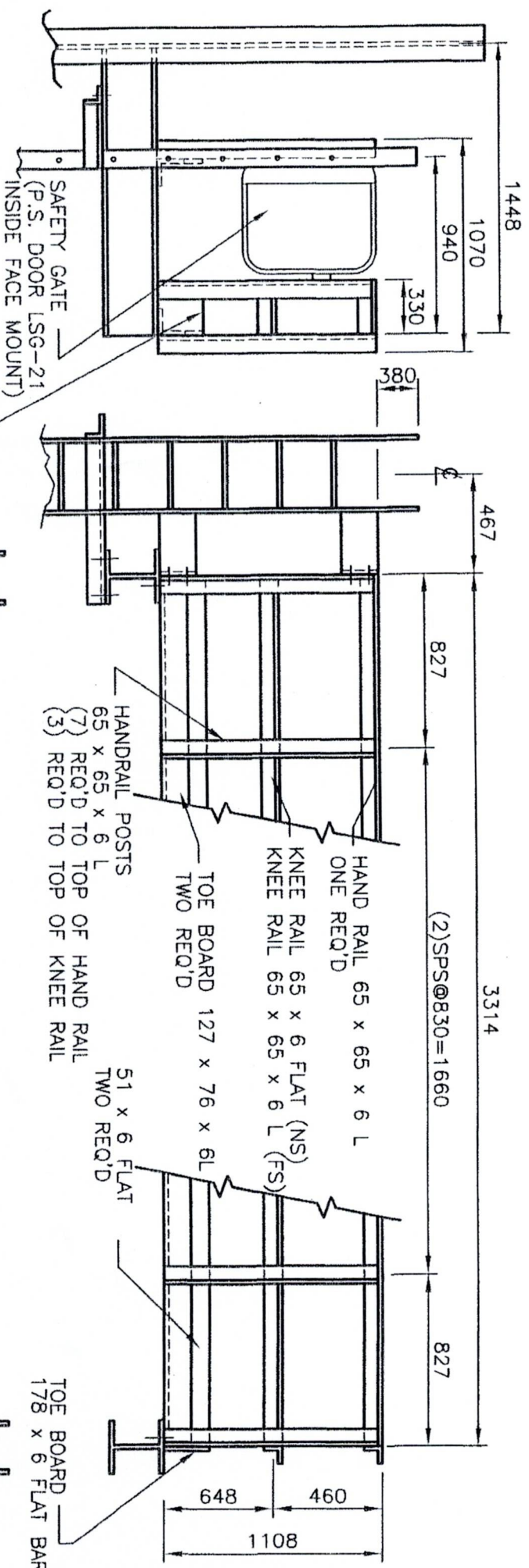
SHEET 22 OF 20

CERTIFIED
AS BUILT



NO. OF LADDERS REQ'D (1)

NOTE: IF WALKWAY GRATING HAS TWO OR MORE PIECES, BANDING BAR IS REQ'D AT EACH JOINT



NO. OF WALKWAYS REQ'D (1)

CERTIFIED AS BUILT

LADDER AND WALKWAY DETAIL

ITEM NO. 34 & 35

EXCHANGER INDUSTRIES

CALGARY, ALBERTA

GENERAL NOTES

- 1) ALL HOLES ARE 17Ø
- 2) ALL STRUCTURAL STEEL IS C40.21-44W
- 3) BEARING BARS TO RUN LENGTHWISE

REVISIONS

- 1) PER CUST JUN 2/2009 DCR NI-014829(RL)

DWN RL

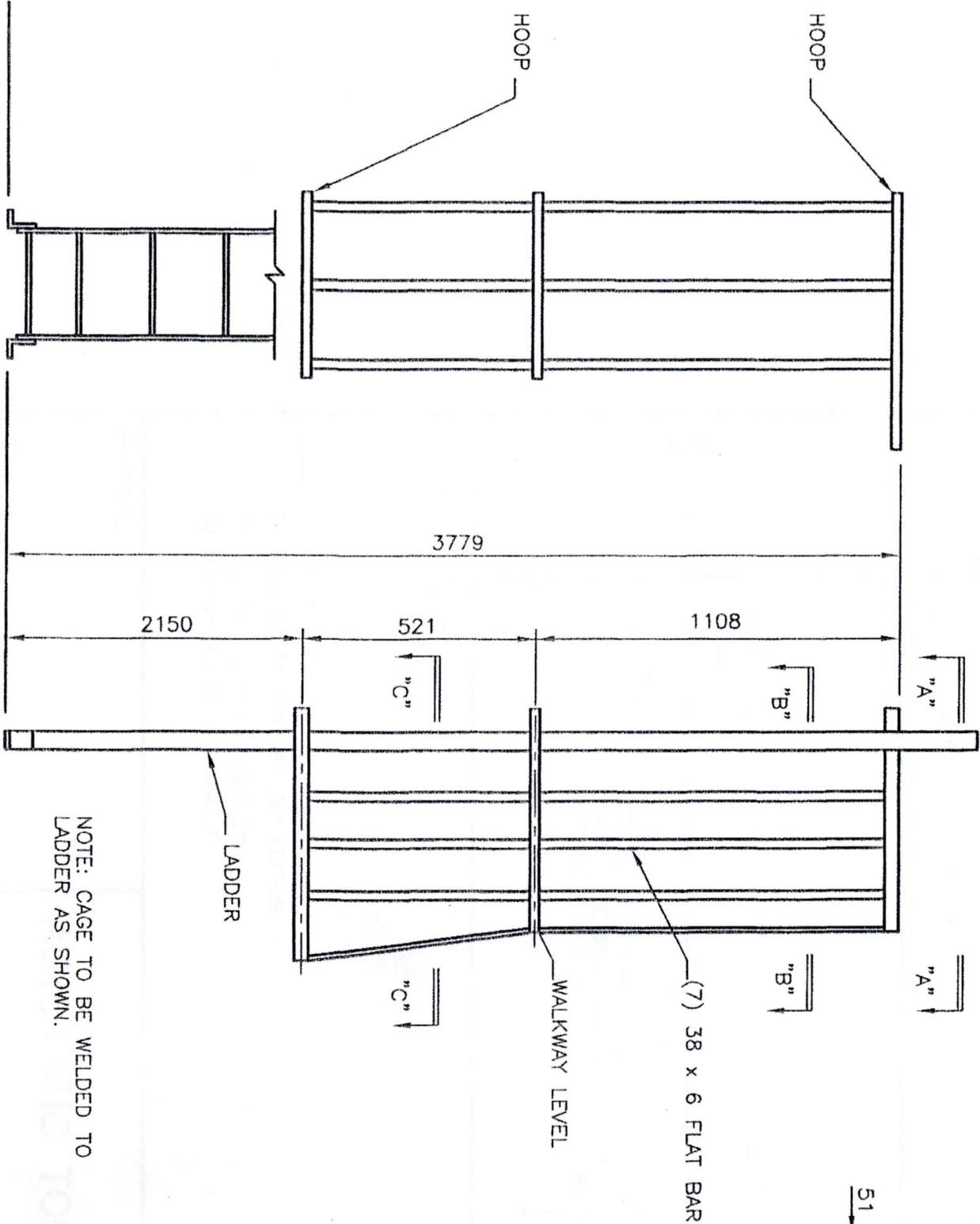
CKD BG

SHEET 33 OF 39

DWG NO. 08-5062

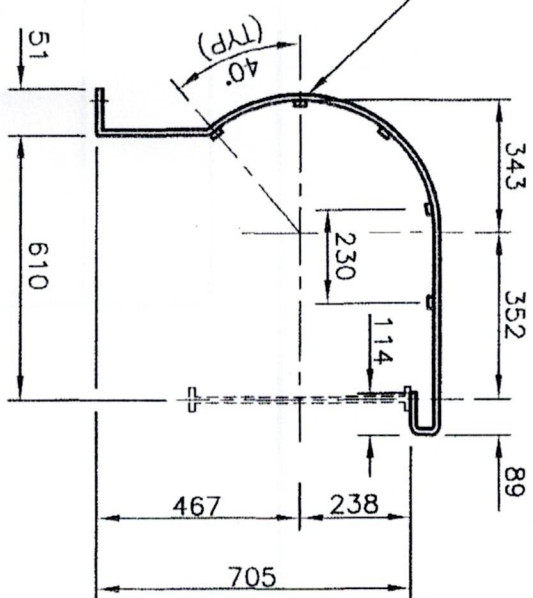
MATERIAL REQ'D FOR ONE LADDER CAGE

76 x 6 FLAT	(1) REQ'D	1755 LG
51 x 6 FLAT	(1) REQ'D	2430 LG
76 x 6 FLAT	(1) REQ'D	2634 LG
38 x 6 FLAT	(5/2) REQ'D	1667/584 LG
NO. OF CAGES REQ'D		(1)

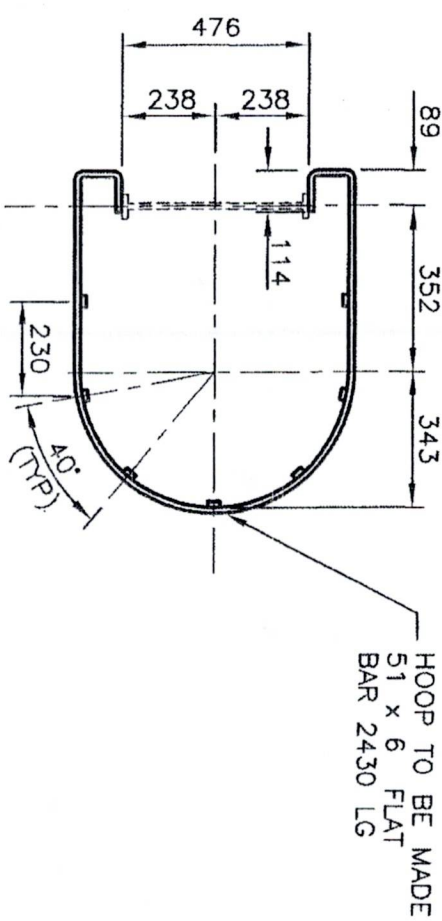


HOOP TO BE MADE
76 x 6 FLAT
1755 LG

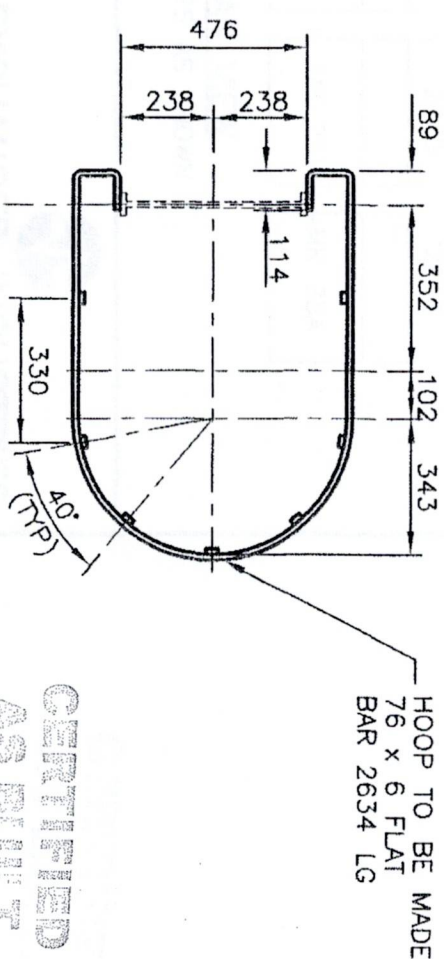
SECTION "A-A"



SECTION "B-B"



SECTION "C-C"



CERTIFIED
AS BUILT

GENERAL NOTES

- ALL STRUCTURAL STEEL IS G40.21-44W
- ALL HOLES ARE 17Ø

REVISIONS

CAGE DETAIL

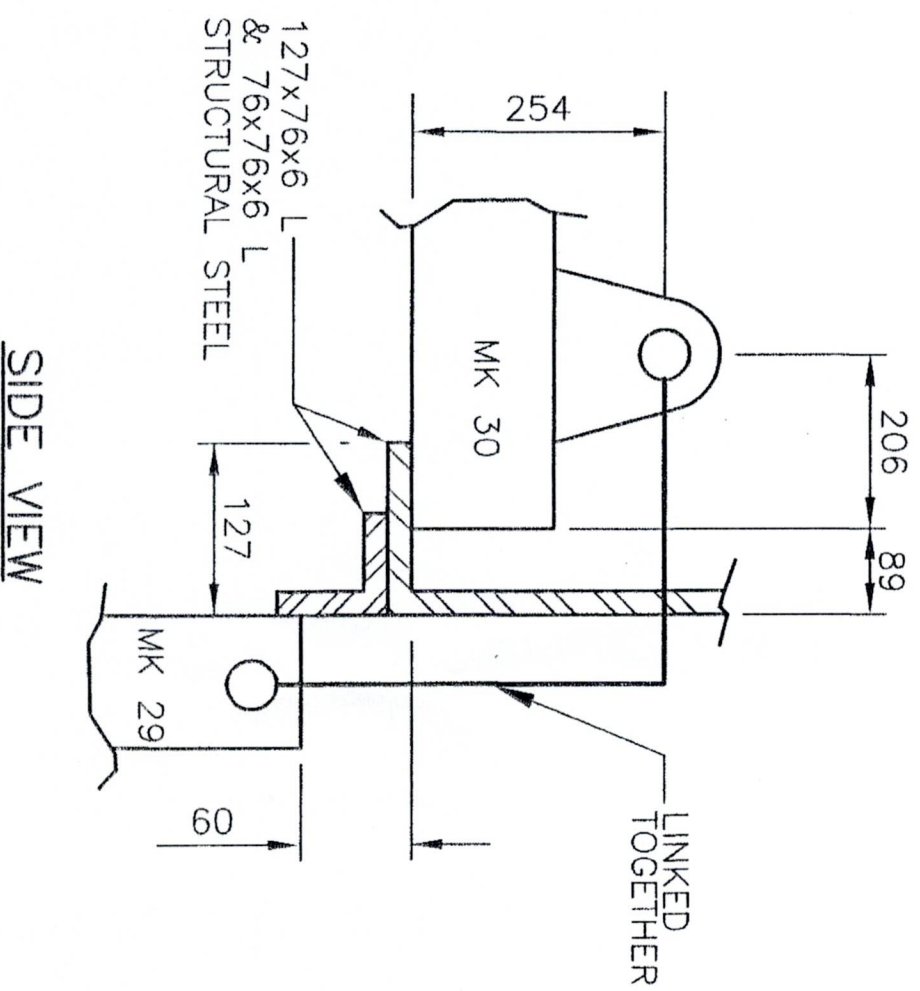


EXCHANGER INDUSTRIES
CALGARY, ALBERTA

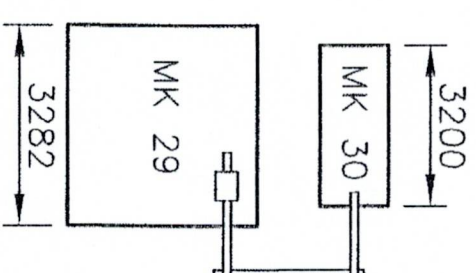
DWG NO. 08-5062

DWN RL CKD BG

SHEET 34 OF 39



SIDE VIEW



LOUVRE LAYOUT

(1) AS SHOWN

CERTIFIED
AS BUILT

REVISIONS

AUTOMATIC RECIRC LOUVRE

EXCHANGER INDUSTRIES

CALGARY, ALBERTA

DWG NO. 08-5062

DWN RI LKRN RC

CHFTT ZN OF ZN