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1

ITEM NO.

QTY.

PART NO.

DESCRIPTION

1

1

114510

3 ZONE CONVEYOR SECTION FOR BOX LIFTER

2

1

115244

ASSY, STANDALONE ELECTRICAL CABINET AND MOUNTING KIT - BOX FLAP LIFTER - 620MM BF CONVEYOR

3

1

122868

ASSY, STACK LIGHT, BOX LIFTER

4

1

115746

ASSY, PUSH BUTTON STATION, BOX LIFTER

5

1

114880

ASSY, RELAY ENCLOSURE, BOX LIFTER

6

1

117028-01

ASSY, ACTUATOR & MOTOR (ETHERNET CONTROLLER), 01

7

1

117028-02

ASSY, ACTUATOR & MOTOR (ETHERNET CONTROLLER), 02

8

1

111298

BOX FLAP AUTOMATED TRAY REMOVAL ACTUATOR MOUNTING BRACKET

9

2

111330

BOX FLAP AUTOMATED TRAY REMOVAL ACTUATOR TOP SUPPORT BRACKET

10

2

115747

ASSY, BOX GUIDE BRACKET, BOX LIFTER

11

2

117042

ASSY, SIDE RAIL, BOX LIFTER

12

1

114902

ASSY, REINFORCING ANGLE, BOX/ TOTE LIFTER

13

4

106302

SCREW, M8X1.25, 25 LONG, HEX DRIVE, HEX HEAD, STEEL, ZINC FINISH

14

8

103080

18-8 STAINLESS STEEL NYLON-INSERT LOCKNUT, M8 X 1.25 mm THREAD

15

16

107997

SCREW, FLANGED, M8 X 25mm, EXT HEX, BLK PHOS STEEL

16

8

105292

SCREW, 18-8 STAINLESS STEEL SOCKET HEAD, M6 X 1 mm THREAD, 20 mm LONG

17

8

103451

316 STAINLESS STEEL HEX HEAD SCREW, SUPER-CORROSION-RESISTANT, M6 X 1 MM THREAD, 16 MM LONG

18

1

117529

ASSY, CONTAINER SENSOR, PROX

19

5

117545

KIT, PHOTO EYE SENSOR (SENSOR + REFLECTOR)

20

1

117533

ASSY, BOX LIFTER GUARDING

21

1

117544

KIT, CABLES, BOX LIFTER (FLAP)

22

1

117705

BOX LIFTER INTERCONNECT DRAWING

23

4

108578

NUT, M8X1.25, HEX, SERRATED FLANGE, STEEL, ZINC FINISH

NOTES:

1. REFER TO INDIVIDUAL ASSEMBLY DRAWINGS FOR DETAILS OF EACH ASSEMBLY.

2. REFER SHEETS 4 AND 5 FOR DETAILED LOCATIONS OF THE SENSORS IN R-L & L-R CONFIGURATIONS.

3. NOT SHOWN HERE, REFER INTERCONNECT DRAWING

DESCRIPTION:

BOX LIFTER (FLAP) ASSY,
AUTOMATED TRAY REMOVAL

SIZE

C

PART NUMBER:

118104-XX

REV:

B

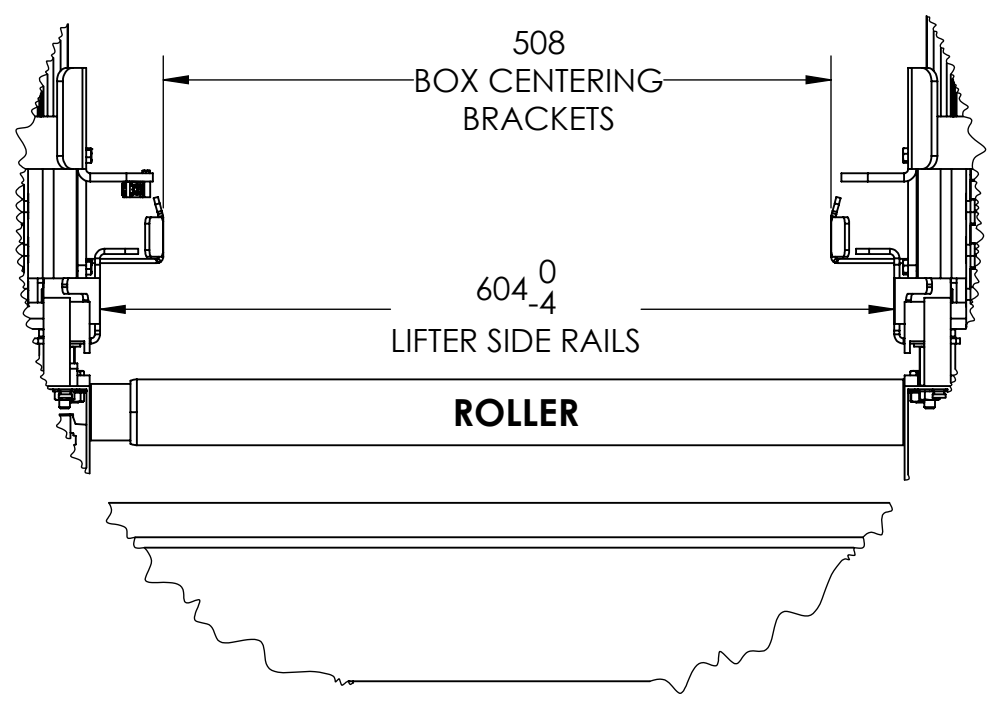
SCALE: 1:25

SHEET 2 OF 5

BG

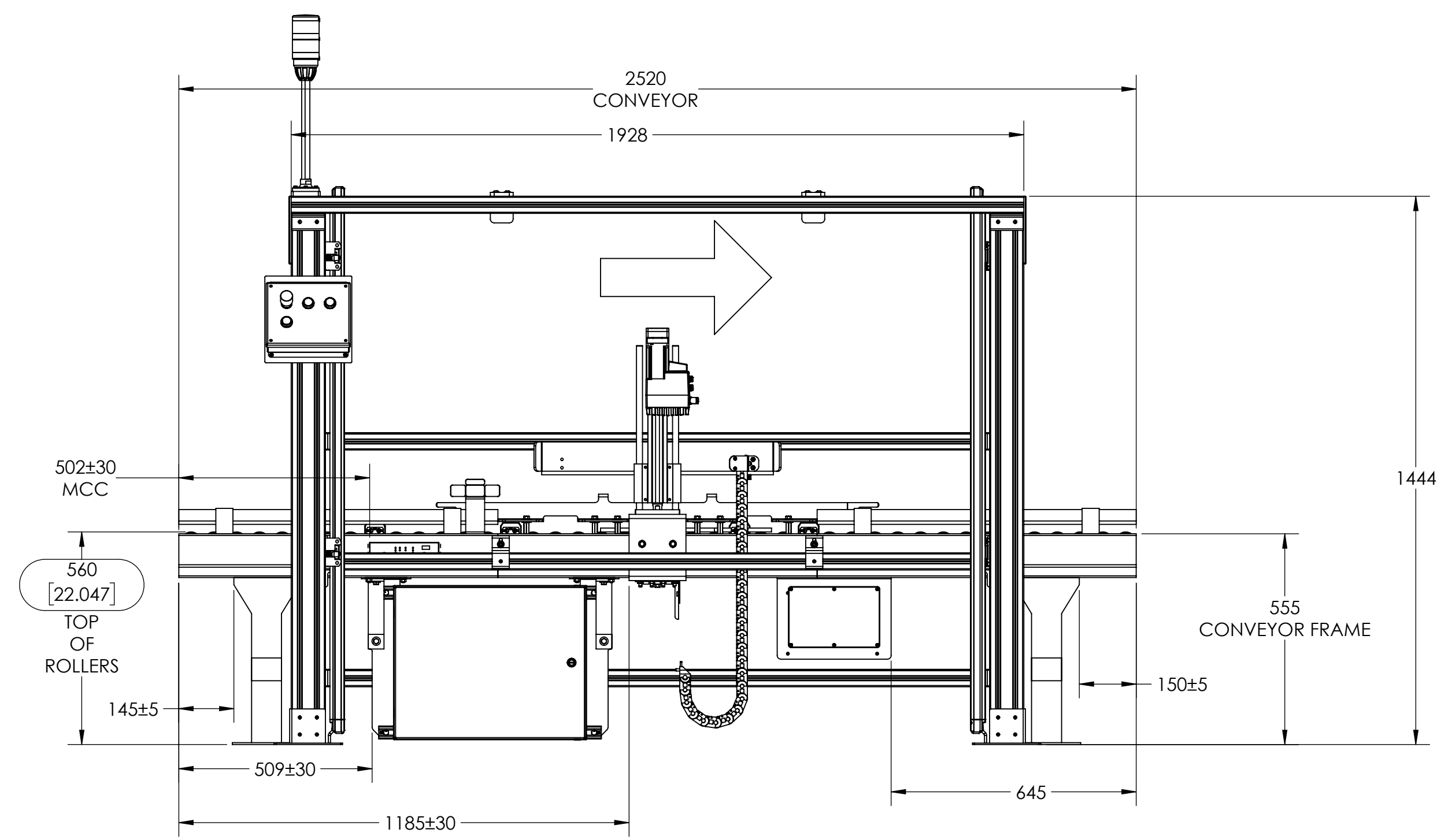
BERKSHIRE
GREY

H
G
F
E
D
C
B
A

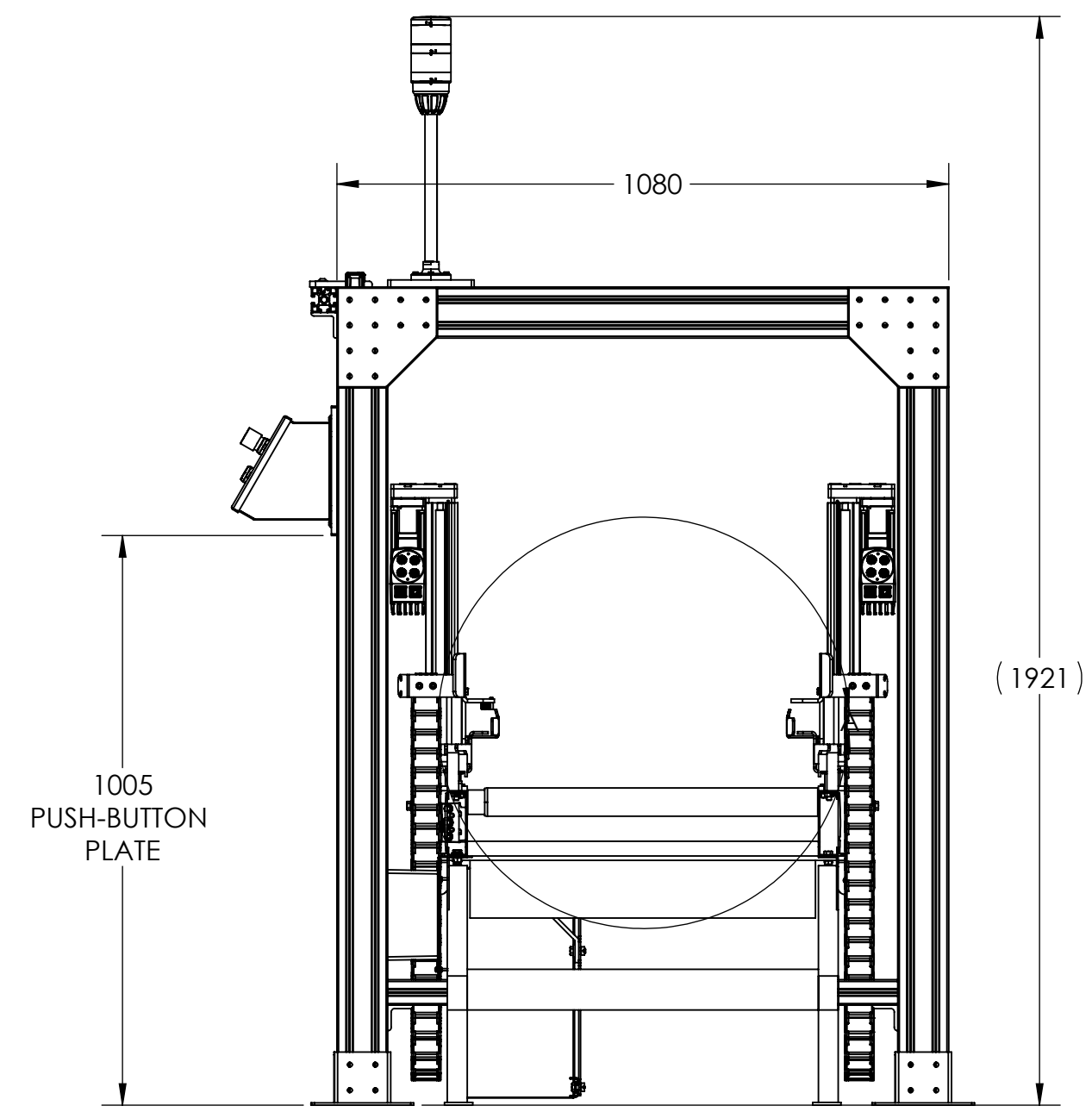
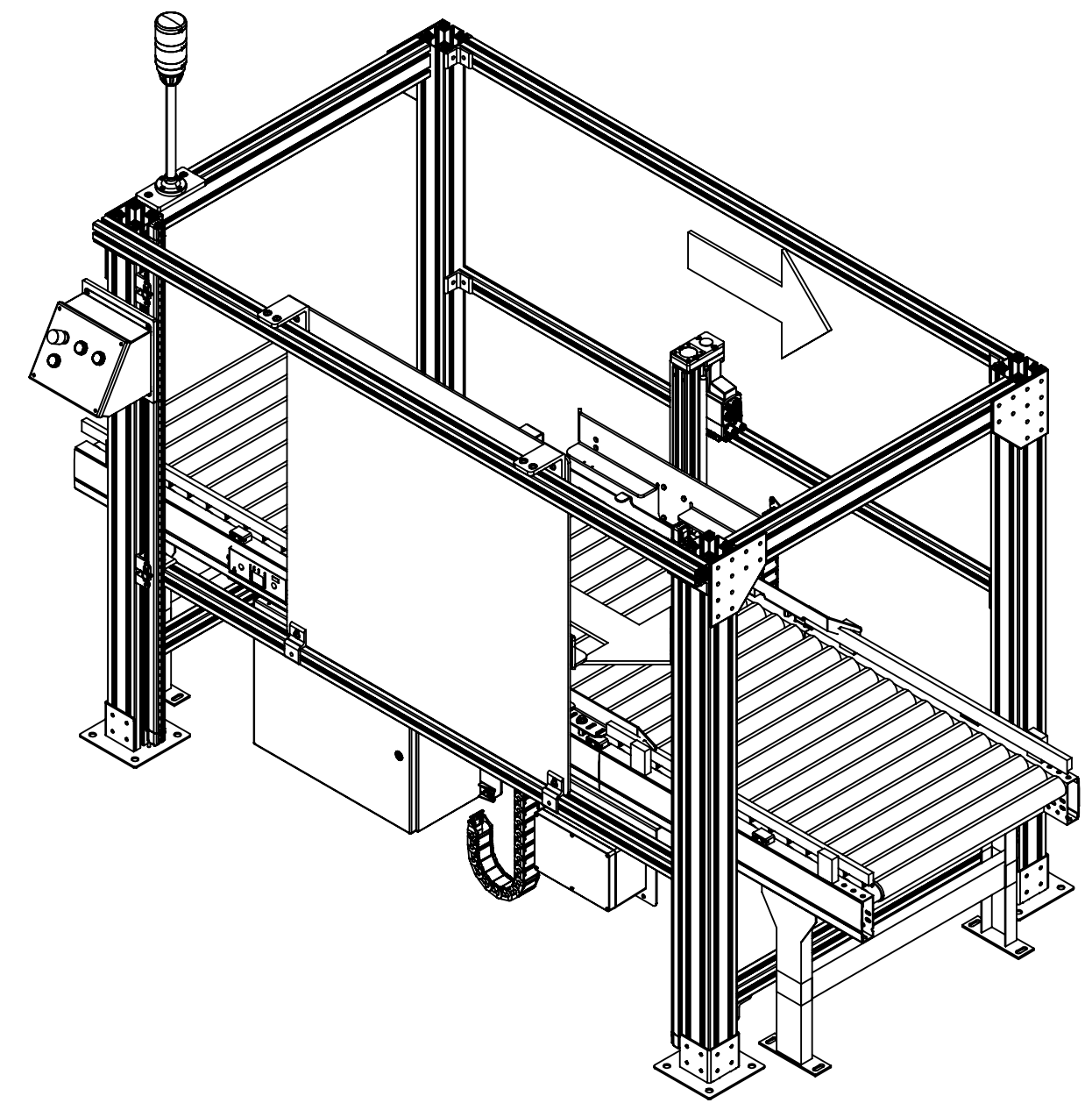


DETAIL A
SCALE 2 : 11.5

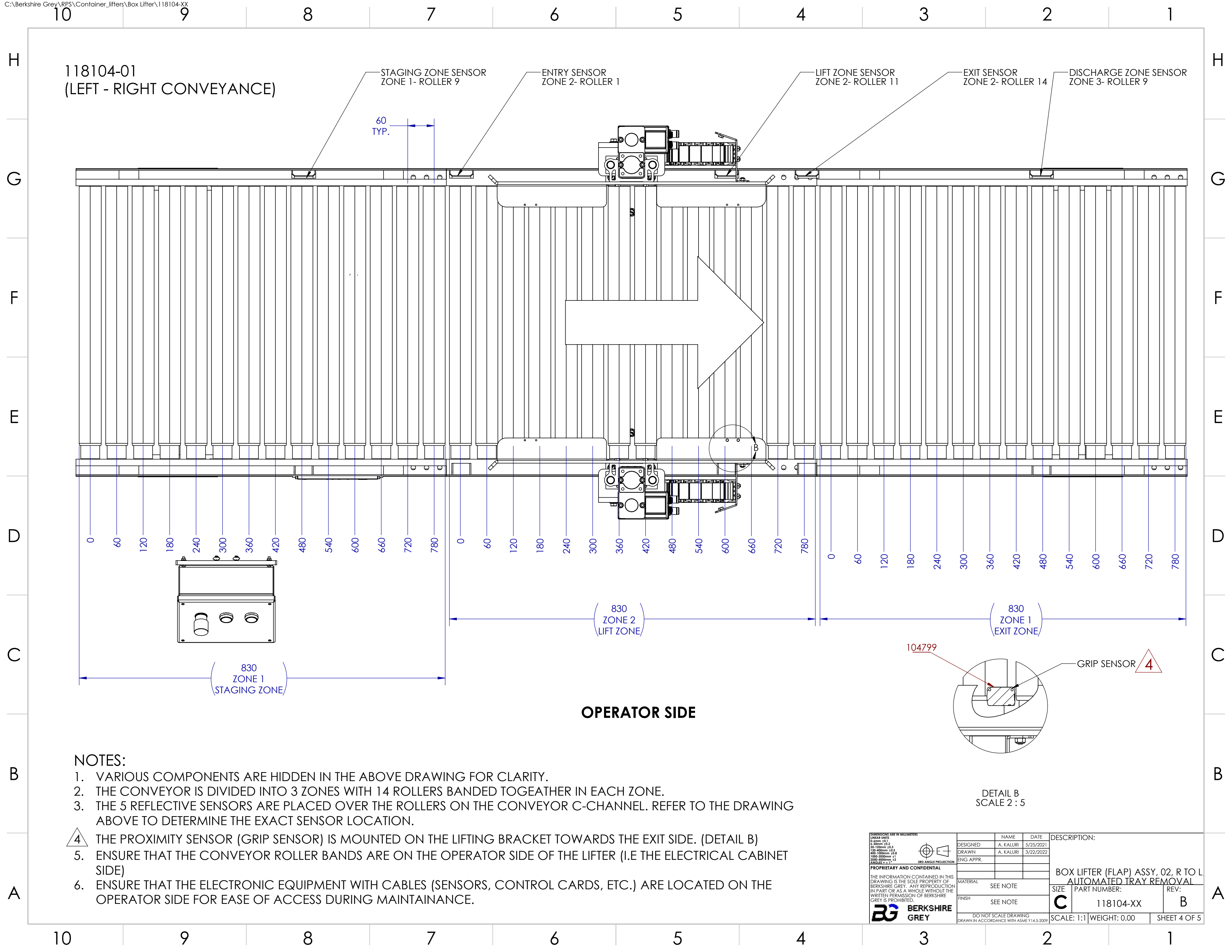
- NOTES:
1. THE DIMENSIONS SHOWN IN THIS SHEET ARE THE SAME FOR BOTH THE RIGHT AND LEFT-HAND VERSIONS OF THE BOX LIFTER.
 2. REFER TO SHEETS 4 AND 5 FOR SPECIFIC LOCATIONS OF THE SENSORS.
 3. ENSURE THAT THE CONVEYOR ROLLER BANDS ARE ON THE OPERATOR SIDE OF THE LIFTER (I.E THE ELECTRICAL CABINET SIDE)
 4. ENSURE THAT THE ELECTRONIC EQUIPMENT WITH CABLES (SENSORS, CONTROL CARDS, ETC.) ARE LOCATED ON THE OPERATOR SIDE FOR EASE OF ACCESS DURING MAINTAINANCE.
 5. APPLY LOCTITE 243 TO SCREWS BEFORE ISNSTALLATION IF NO OTHER RETAINING FEATURE EXISTS.
 6. USE BG TORQUE TABLE (109853) FOR THE FASTENERS.
 7. REFER TO THE 3D CAD DRAWING FOR DETAILED DESIGN ASPECTS.
 8. REFER TO THE INTERCONNECT DRAWING (117705) FOR DETAILS ON THE ELECTRICAL SYSTEM.



118104-XX
(FRONT SIDE POLYCARB PANEL IS HIDDEN FOR CLARITY)



DIMENSIONS ARE IN MILLIMETERS				DESCRIPTION:	
LINEAR UNITS		NAME			
10-40mm ±0.1		DESIGNED		5/25/2021	
40-120mm ±0.2		DRAWN		A. KALLURI	
120-400mm ±0.5				3/22/2022	
400-1000mm ±0.8		ENG APPR.			
1000-2000mm ±1					
2000-4000mm ±2					
ANGLES ± 1°					
3RD ANGLE PROJECTION					
PROPRIETARY AND CONFIDENTIAL				BOX LIFTER (FLAP) ASSY, 01, L TO R AUTOMATED TRAY REMOVAL	
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BERKSHIRE GREY. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BERKSHIRE GREY IS PROHIBITED.		MATERIAL			
		SEE NOTE		SIZE	PART NUMBER:
				C	118104-XX
		FINISH		REV:	B
		SEE NOTE			
		DO NOT SCALE DRAWING		SCALE: 1:1	
		DRAWN IN ACCORDANCE WITH ASME Y14.5-2009		WEIGHT: 0.00	
				SHEET 3 OF 5	
		BERKSHIRE GREY			



DIMENSIONS ARE IN MILLIMETERS		NAME	DATE	DESCRIPTION:	
LINEAL UNITS		DESIGNED	A. KALURI	5/25/2021	BOX LIFTER (FLAP) ASSY, 02, R TO L AUTOMATED TRAY REMOVAL
10mm = 10		DRAWN	A. KALURI	3/22/2022	
1/8" = 3.175		ENG APPR.			
1/4" = 6.35					
3/8" = 9.525					SIZE PART NUMBER: REV:
1/2" = 12.7					
3/4" = 19.05					SCALE: 1:1 WEIGHT: 0.00 SHEET 4 OF 5
1" = 25.4					
1 1/4" = 31.75					
1 1/2" = 38.1					
1 3/4" = 44.45					
2" = 50.8					
2 1/4" = 63.5					
2 1/2" = 63.5					
2 3/4" = 69.85					
3" = 76.2					
3 1/4" = 86.1					
3 1/2" = 88.9					
3 3/4" = 95.25					
4" = 101.6					
4 1/4" = 111.75					
4 1/2" = 114.3					
4 3/4" = 120.65					
5" = 127					
5 1/4" = 139.75					
5 1/2" = 141.3					
5 3/4" = 146.05					
6" = 152.4					
6 1/4" = 165.1					
6 1/2" = 165.1					
6 3/4" = 171.45					
7" = 177.8					
7 1/4" = 189.75					
7 1/2" = 190.5					
7 3/4" = 196.85					
8" = 203.2					
8 1/4" = 215.1					
8 1/2" = 215.9					
8 3/4" = 222.25					
9" = 228.6					
9 1/4" = 240.5					
9 1/2" = 241.3					
9 3/4" = 247.65					
10" = 254					
10 1/4" = 266.75					
10 1/2" = 266.75					
10 3/4" = 273.05					
11" = 279.4					
11 1/4" = 291.25					
11 1/2" = 292.7					
11 3/4" = 298.45					
12" = 304.8					
12 1/4" = 316.75					
12 1/2" = 317.5					
12 3/4" = 323.85					
13" = 330.2					
13 1/4" = 342.25					
13 1/2" = 343.7					
13 3/4" = 349.45					
14" = 355.8					
14 1/4" = 367.75					
14 1/2" = 368.7					
14 3/4" = 375.05					
15" = 381.2					
15 1/4" = 393.25					
15 1/2" = 394.7					
15 3/4" = 400.45					
16" = 406.4					
16 1/4" = 418.25					
16 1/2" = 419.7					
16 3/4" = 425.45					
17" = 431.6					
17 1/4" = 443.25					
17 1/2" = 444.7					
17 3/4" = 450.45					
18" = 457.2					
18 1/4" = 468.75					
18 1/2" = 470.7					
18 3/4" = 476.45					
19" = 482.8					
19 1/4" = 494.25					
19 1/2" = 496.7					
19 3/4" = 502.45					
20" = 508					
20 1/4" = 519.75					
20 1/2" = 521.7					
20 3/4" = 527.45					
21" = 533.2					
21 1/4" = 544.75					
21 1/2" = 546.7					
21 3/4" = 552.45					
22" = 558.8					
22 1/4" = 570.25					
22 1/2" = 572.7					
22 3/4" = 578.45					
23" = 584.8					
23 1/4" = 596.25					
23 1/2" = 598.7					
23 3/4" = 604.45					
24" = 610.4					
24 1/4" = 621.25					
24 1/2" = 623.7					
24 3/4" = 629.45					
25" = 635.2					
25 1/4" = 646.25					
25 1/2" = 648.7					
25 3/4" = 654.45					
26" = 660.8					
26 1/4" = 671.25					
26 1/2" = 673.7					
26 3/4" = 679.45					
27" = 685.2					
27 1/4" = 696.25					
27 1/2" = 698.7					
27 3/4" = 704.45					
28" = 710.4					
28 1/4" = 721.25					
28 1/2" = 723.7					
28 3/4" = 729.45					
29" = 735.2					
29 1/4" = 746.25					
29 1/2" = 748.7					
29 3/4" = 754.45					
30" = 760.8					
30 1/4" = 771.25					
30 1/2" = 773.7					
30 3/4" = 779.45					
31" = 785.2					
31 1/4" = 796.25					
31 1/2" = 798.7					
31 3/4" = 804.45					
32" = 810.4					
32 1/4" = 821.25					
32 1/2" = 823.7					
32 3/4" = 829.45					
33" = 835.2					
33 1/4" = 846.25					
33 1/2" = 848.7					
33 3/4" = 854.45					
34" = 860.8					
34 1/4" = 871.25					
34 1/2" = 873.7					
34 3/4" = 879.45					
35" = 885.2					
35 1/4" = 896.25					
35 1/2" = 898.7					
35 3/4" = 904.45					
36" = 910.4					
36 1/4" = 921.25					
36 1/2" = 923.7					
36 3/4" = 929.45					
37" = 935.2					
37 1/4" = 946.25					
37 1/2" = 948.7					
37 3/4" = 954.45					
38" = 960.8					
38 1/4" = 971.25					
38 1/2" = 973.7					
38 3/4" = 979.45					
39" = 985.2					
39 1/4" = 996.25					
39 1/2" = 998.7					
39 3/4" = 1004.45					
40" = 1010.4					
40 1/4" = 1021.25					
40 1/2" = 1023.7					
40 3/4" = 1029.45					
41" = 1035.2					
41 1/4" = 1046.25					
41 1/2" = 1048.7					
41 3/4" = 1054.45					
42" = 1060.8					
42 1/4" = 1071.25					
42 1/2" = 1073.7					
42 3/4" = 1079.45					
43" = 1085.2					
43 1/4" = 1096.25					
43 1/2" = 1098.7					
43 3/4" = 1104.45					
44" = 1110.4					
44 1/4" = 1121.25					
44 1/2" = 1123.7					
44 3/4" = 1129.45					
45" = 1135.2					
45 1/4" = 1146.25					
45 1/2" = 1148.7					
45 3/4" = 1154.45					
46" = 1160.8					
46 1/4" = 1171.25					
46 1/2" = 1173.7					
46 3/4" = 1179.45					
47" = 1185.2					
47 1/4" = 1196.25					
47 1/2" = 1198.7					
47 3/4" = 1204.45					
48" = 1210.4					
48 1/4" = 1221.25					
48 1/2" = 1223.7					
48 3/4" = 1229.45					
49" = 1235.2					
49 1/4" = 1246.25					
49 1/2" = 1248.7					
49 3/4" = 1254.45					
50" = 1260.8					
50 1/4" = 1271.25					
50 1/2" = 1273.7					
50 3/4" = 1279.45					
51" = 1285.2					
51 1/4" = 1296.25					
51 1/2" = 1298.7					
51 3/4" = 1304.45					
52" = 1310.4					
52 1/4" = 1321.25					
52 1/2" = 1323.7					
52 3/4" = 1329.45					
53" = 1335.2					
53 1/4" = 1346.25					
53 1/2" = 1348.7					
53 3/4" = 1354.45					
54" = 1360.8					
54 1/4" = 1371.25					
54 1/2" = 1373.7					
54 3/4" = 1379.45					
55" = 1385.2					
55 1/4" = 1396.25					
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61 1/2" = 1548.7					
61 3/4" = 1554.45					
62" = 1560.8					
62 1/4" = 1571.25					
62 1/2" = 1573.7					
62 3/4" = 1579.45					
63" = 1585.2					
63 1/4" = 1596.25					
63 1/2" = 1598.7					
63 3/4" = 1604.45					
64" = 1610.4					
64 1/4" = 1621.25					
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64 3/4" = 1629.45					
65" = 1635.2					
65 1/4" = 1646.25					
65 1/2" = 1648.7					
65 3/4" = 1654.45					
66" = 1660.8					
66 1/4" = 1671.25					
66 1/2" = 1673.7					
66 3/4" = 1679.45					
67" = 1685.2					
67 1/4" = 1696.25					
67 1/2" = 1698.7					
67 3/4" = 1704.45					
68" = 1710.4					
68 1/4" = 1721.25					
68 1/2" = 1723.7					
68 3/4" = 1729.45					
69" = 1735.2					
69 1/4" = 1746.25					
69 1/2" = 1748.7					
69 3/4" = 1754.45					
70" = 1760.8					
70 1/4" = 1771.25					
70 1/2" = 1773.7					
70 3/4" = 1779.45					
71" = 1785.2					
71 1/4" = 1796.25					
71 1/2" = 1798.7					
71 3/4" = 1804.45					
72" = 1810.4					
72 1/4" = 1821.25					
72 1/2" = 1823.7					
72 3/4"					

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118104-02
(RIGHT - LEFT CONVEYANCE)DISCHARGE ZONE SENSOR
ZONE 3- ROLLER 9EXIT SENSOR
ZONE 2- ROLLER 14LIFT ZONE SENSOR
ZONE 2- ROLLER 11ENTRY SENSOR
ZONE 2- ROLLER 1STAGING ZONE SENSOR
ZONE 1- ROLLER 960
Typ.

780 720 660 600 540 480 420 360 300 240 180 120 60 0

780 720 660 600 540 480 420 360 300 240 180 120 60 0

780 720 660 600 540 480 420 360 300 240 180 120 60 0

830
ZONE 1
(STAGING ZONE)830
ZONE 2
(LIFT ZONE)830
ZONE 3
(DISCHARGE ZONE)

OPERATOR SIDE

104799

GRIP SENSOR

4

NOTES:

1. VARIOUS COMPONENTS ARE HIDDEN IN THE ABOVE DRAWING FOR CLARITY.
2. THE CONVEYOR IS DIVIDED INTO 3 ZONES WITH 14 ROLLERS BANDED TOGETHER IN EACH ZONE.
3. THE 5 REFLECTIVE SENSORS ARE PLACED OVER THE ROLLERS ON THE CONVEYOR C-CHANNEL. REFER TO THE DRAWING ABOVE TO DETERMINE THE EXACT SENSOR LOCATION.
4. THE PROXIMITY SENSOR (GRIP SENSOR) IS MOUNTED ON THE LIFTING BRACKET TOWARDS THE EXIT SIDE. (DETAIL C)
5. ENSURE THAT THE CONVEYOR ROLLER BANDS ARE ON THE OPERATOR SIDE OF THE LIFTER (I.E THE ELECTRICAL CABINET SIDE)
6. ENSURE THAT THE ELECTRONIC EQUIPMENT WITH CABLES (SENSORS, CONTROL CARDS, ETC.) ARE LOCATED ON THE OPERATOR SIDE FOR EASE OF ACCESS DURING MAINTAINANCE.

DETAIL C
SCALE 2 : 5