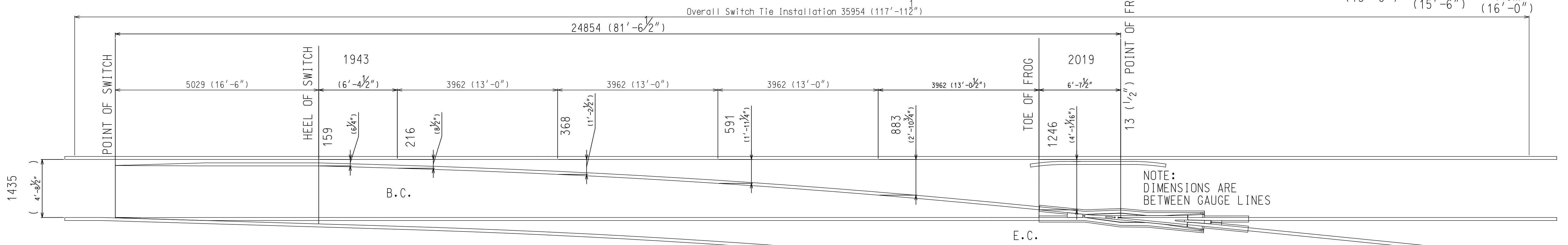
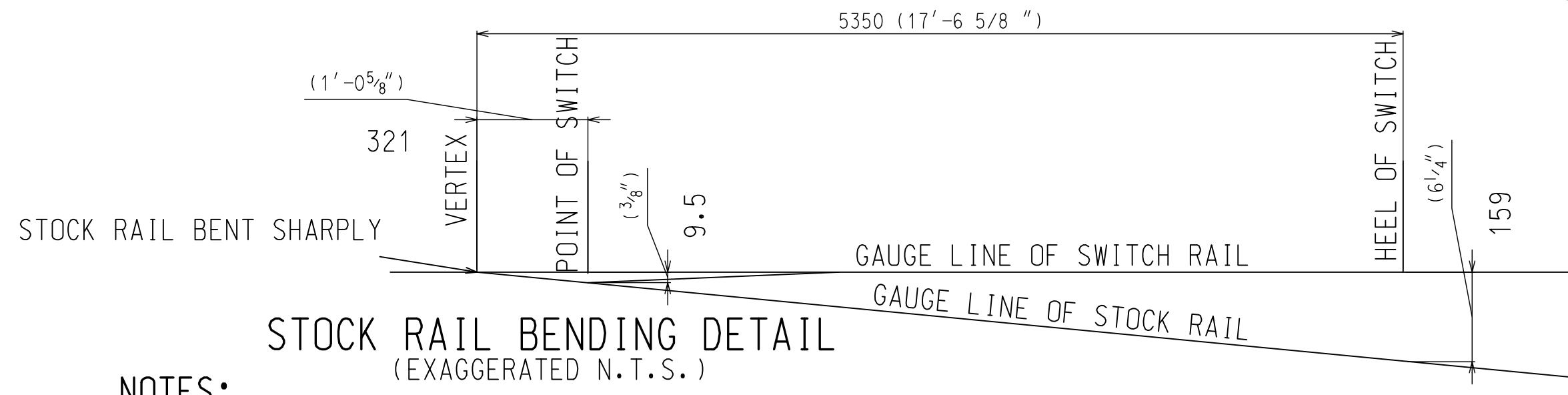


TIE ARRANGEMENT & SPACING



OFFSET DIAGM



STOCK RAIL BENDING DETAIL  
(EXAGGERATED N.T.S.)

TURNOUT DATA

FROG NO. 10  
 LENGTH OF SW. PT. 5029 (16'-6")  
 HEEL SPREAD 159 (6 1/4")  
 LEAD 24854 (81'-6 1/2")  
 P.S. TO H.F. 28016 (91'-11")

17805 (58'-5") STRAIGHT CLOSURE LENGTH MADE UP BY A 17805 (58'-5") RAIL OR:  
 A 11887 (39') & 5918 (19'-5") RAIL  
 A 10973 (36') & 6832 (22'-5") RAIL  
 A 10058 (33') & 7747 (25'-5") RAIL  
 A 9144 (30') & 8661 (28'-5") RAIL

17856 (58'-7") CURVED CLOSURE LENGTH MADE UP BY A 17856 (58'-7") RAIL OR:  
 A 11887 (39') & 5969 (19'-7") RAIL  
 A 10973 (36') & 6883 (22'-7") RAIL  
 A 10058 (33') & 7798 (25'-7") RAIL  
 A 9144 (30') & 8712 (28'-7") RAIL

NOTES:

- 1- TURNOUT TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE LATEST ISSUE OF: GO TRANSIT TRACK STANDARDS RC-0506-02TRK SECTION 16-TURNOUT INSPECTION
- 2- WHEN REFERRING TO POWER OPERATED TURNOUTS, DRAWING NUMBER MUST BE STATED AS A, B, C, OR D TO INDICATE:  
 A-RIGHT HAND TURNOUT P.O. MACHINE ON RIGHT  
 B-RIGHT HAND TURNOUT P.O. MACHINE ON LEFT  
 C-LEFT HAND TURNOUT P.O. MACHINE ON RIGHT  
 D-LEFT HAND TURNOUT P.O. MACHINE ON LEFT
- 3- FOR THE VARIOUS STANDARD TURNOUT COMBINATIONS SEE INDEX SHEET GTS-0000
- 4- TURNOUT GEOMETRY, FOR TABLES OF DIMENSIONS AND OFFSETS SEE GTS-0002

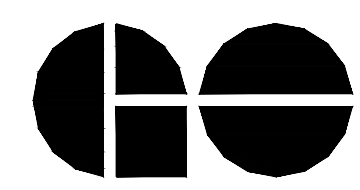
ALL METRIC MEASUREMENTS, MILLIMETERS UNLESS STATED OTHERWISE, ARE A ROUNDED SOFT CONVERSION OF BRITISH UNITS SHOWN IN BRACKETS

METRIC CONVERSION: 1 inch=25.4mm, 1 foot=304.8mm

No.	Date	Revision	By Approved
1	18/07/27	ADDED IMPERIAL TO METRIC CONVERSION NOTE	

Standard/ NO. 10 TURNOUT-16'6" POINTS  
 POWER OPERATED-SAMSON POINTS  
 R.B.M. FROG-132 LB. R.E. RAIL

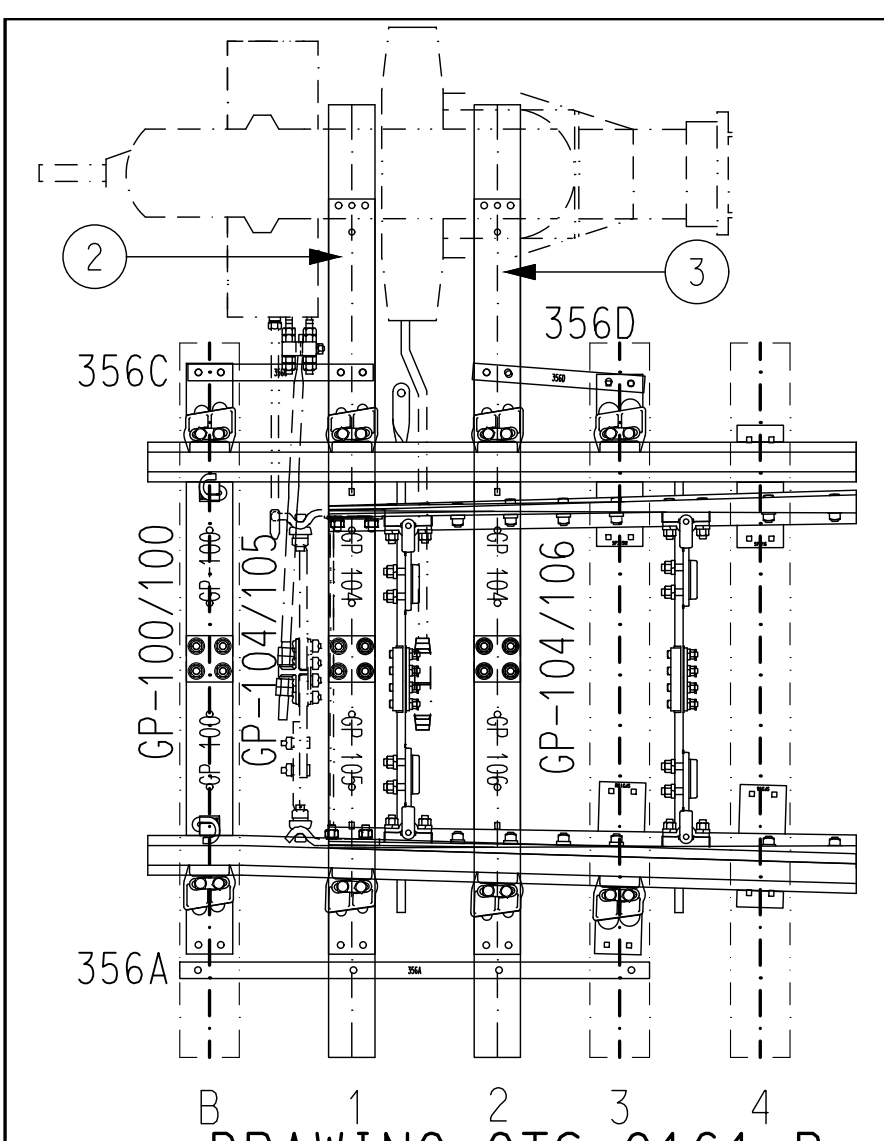
Drawn AZ Checked BC Approved *[Signature]*  
 VP Engineering & Asset Management



**METROLINX**

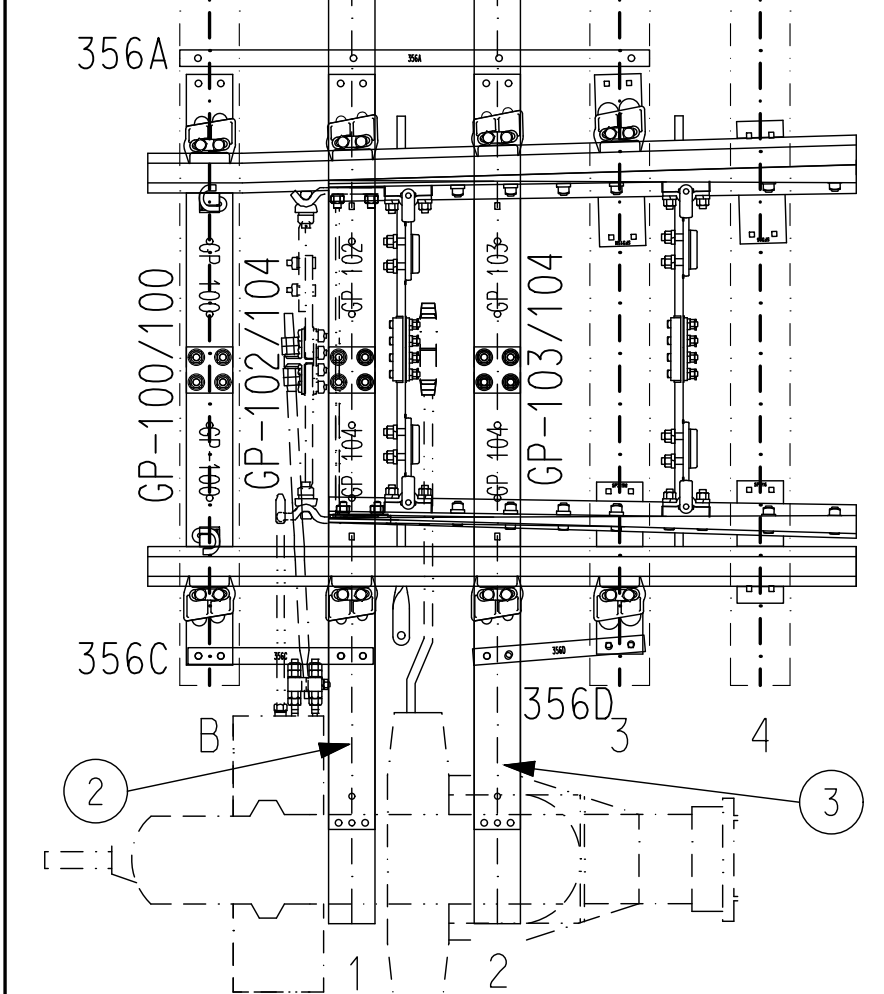
Date SEPT 15/2017 Plan Number GTS-0161A/D Rev 1

REFERENCE: CN\_TS-161A/D Sheet 1 OF 2



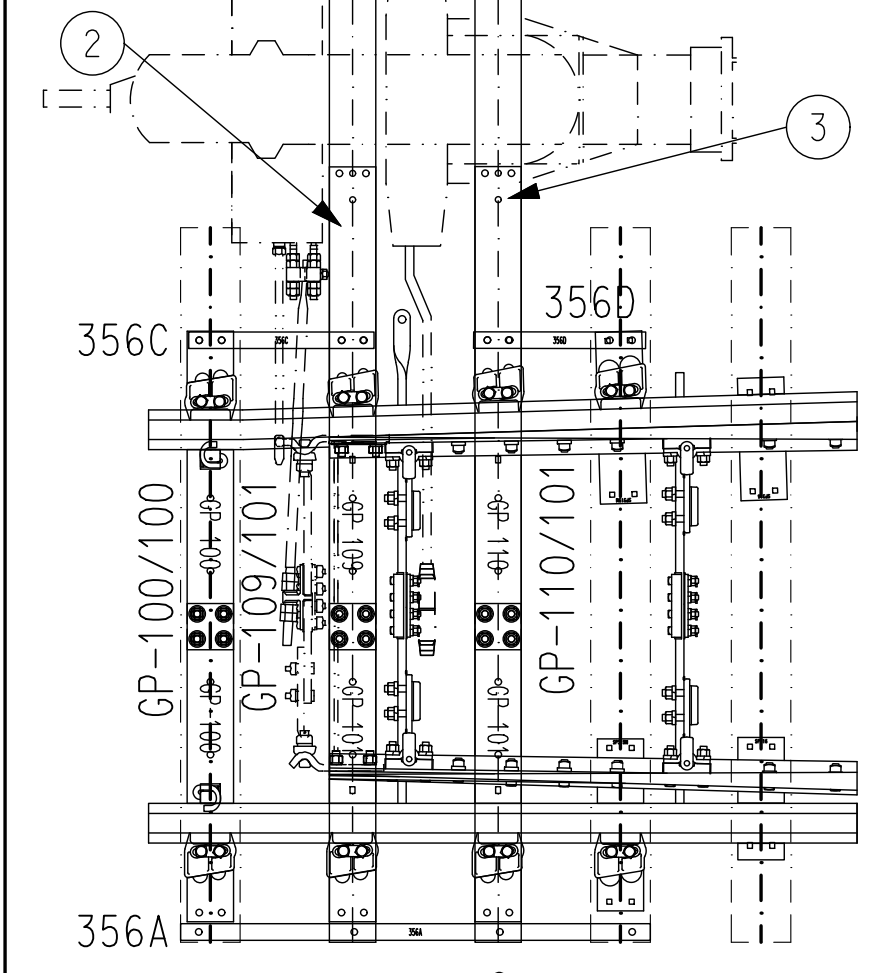
**DRAWING GTS-0161 B**  
RIGHT HAND TURNOUT  
MACHINE MOUNTED ON LEFT

REFERENCE DRAWING GTS-0356 FOR TIE SPACING STRAP DETAIL



**DRAWING GTS-0161 C**  
LEFT HAND TURNOUT  
MACHINE MOUNTED ON RIGHT

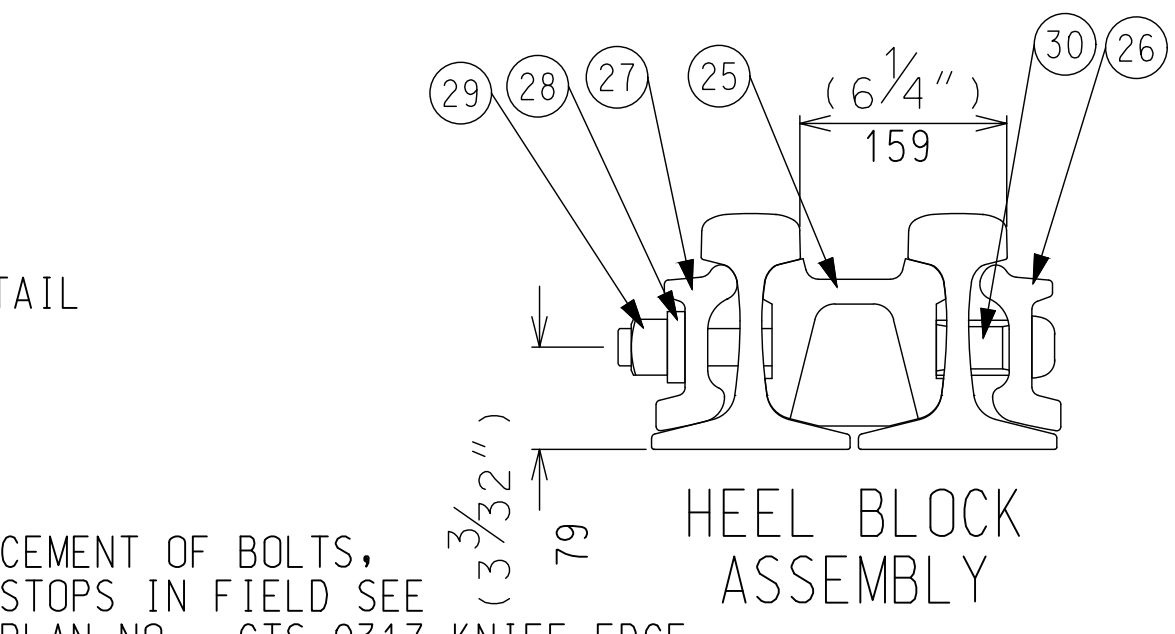
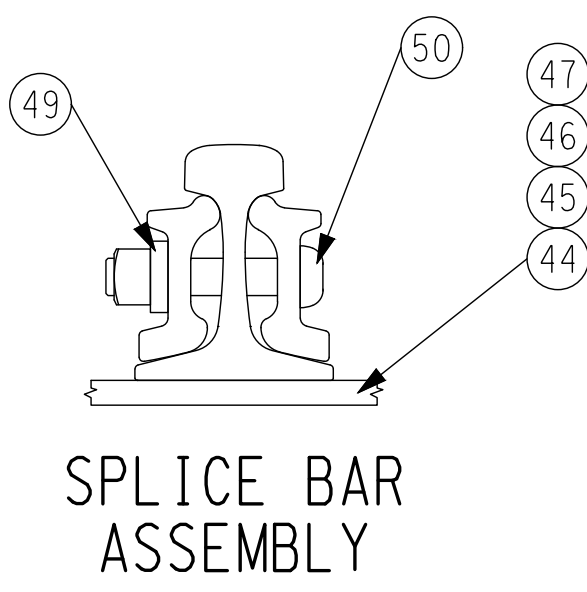
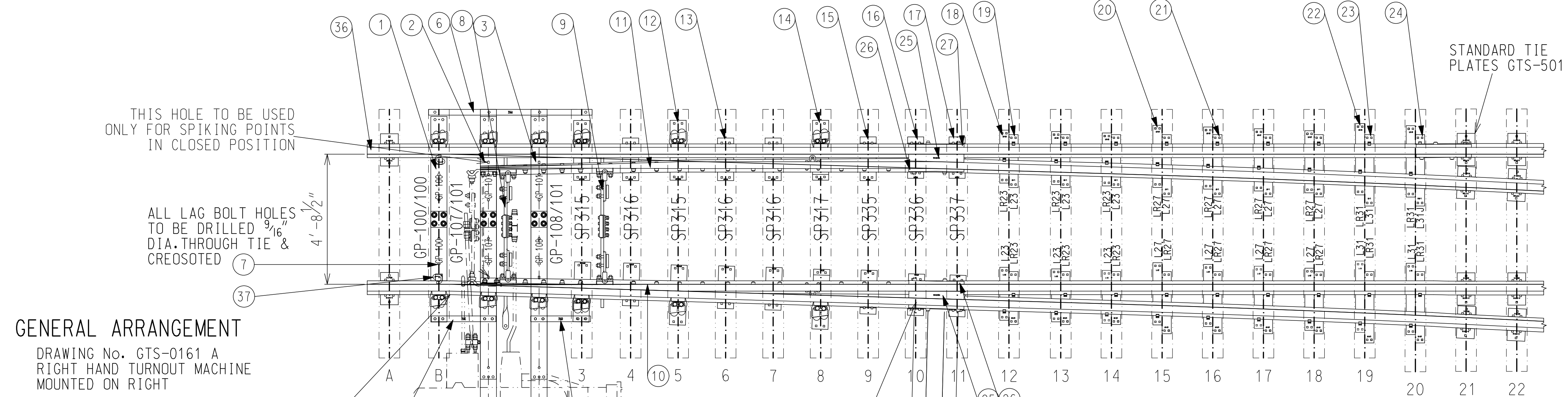
REFERENCE DRAWING GTS-0356 FOR TIE SPACING STRAP DETAIL



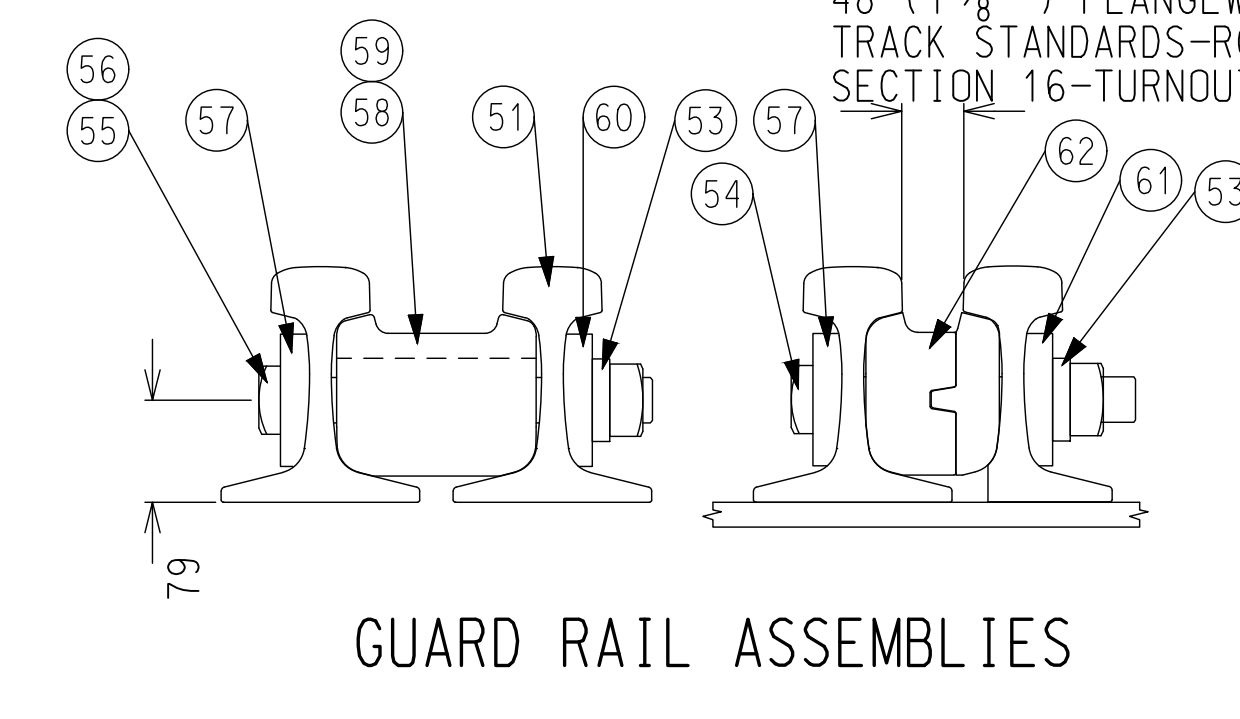
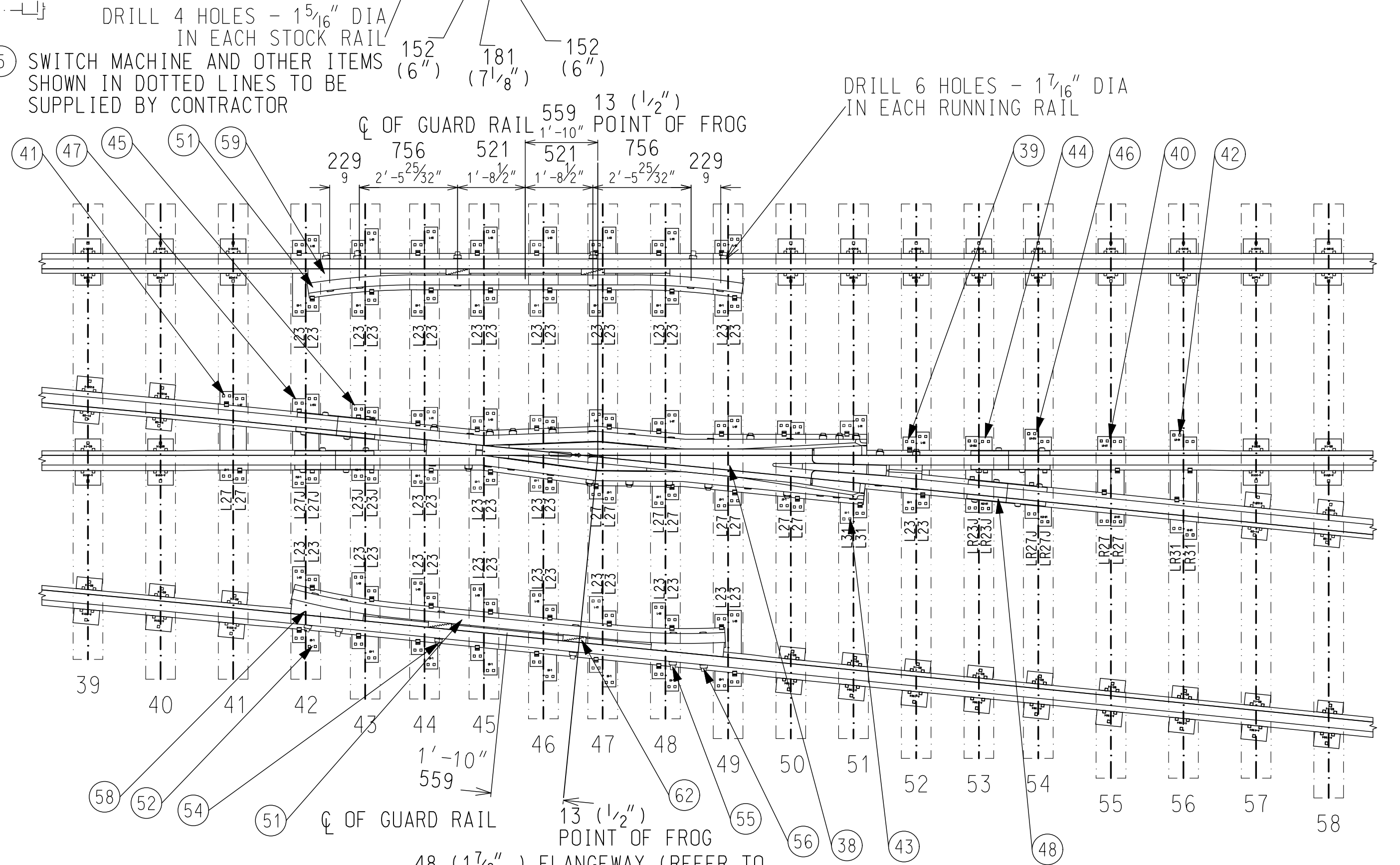
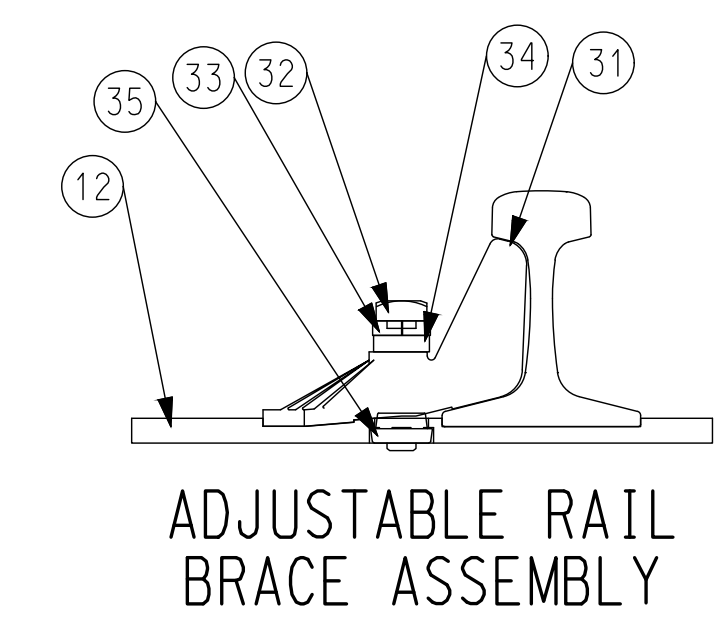
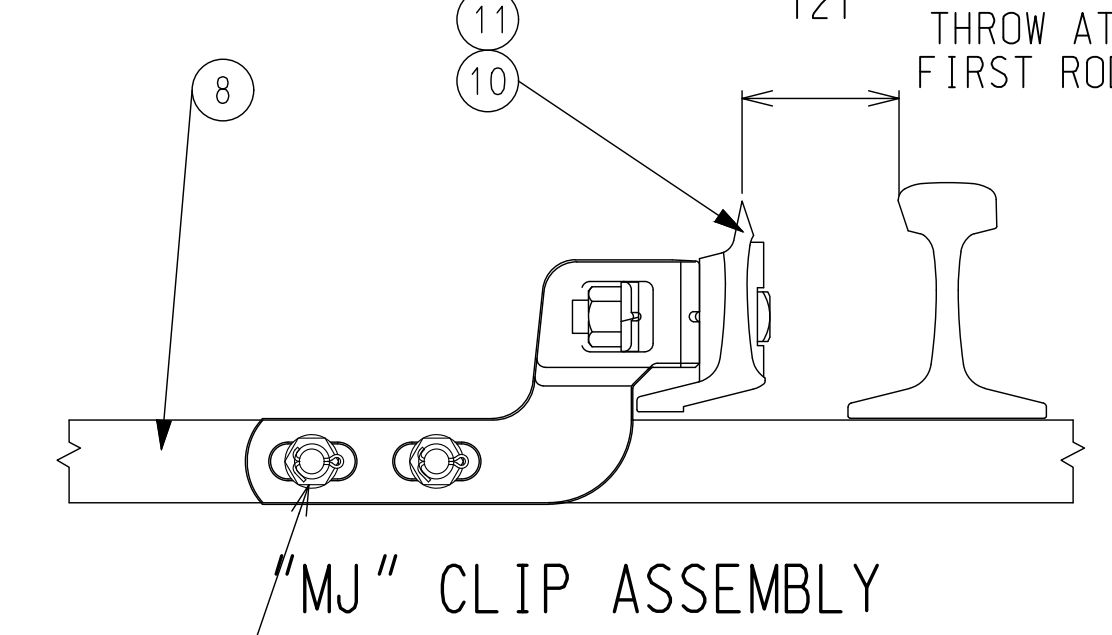
**DRAWING GTS-0161 D**  
LEFT HAND TURNOUT  
MACHINE MOUNTED ON LEFT

REFERENCE DRAWING GTS-0356 FOR TIE SPACING STRAP DETAIL

**GENERAL ARRANGEMENT**  
DRAWING No. GTS-0161 A  
RIGHT HAND TURNOUT MACHINE MOUNTED ON RIGHT



FOR REPLACEMENT OF BOLTS, CLIPS OR STOPS IN FIELD SEE STANDARD PLAN NO. GTS-0317 KNIFE EDGE GTS-0320 SAMSON (SHOWN) 121

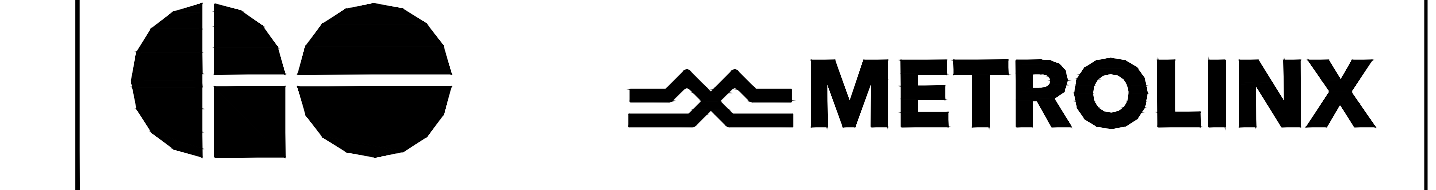


**METRIC CONVERSION: 1 inch=25.4mm, 1 foot=304.8mm**

1	18/07/27	ADDED IMPERIAL TO METRIC CONVERSION NOTE	
No.	Date	Revision	By Approved

Standard / **NO. 10 TURNOUT-16'6" POINTS  
POWER OPERATED-SAMSON POINTS  
R.B.M. FROG-132 LB. R.E. RAIL**

Drawn AZ Checked BC Approved *[Signature]*  
VP Engineering & Asset Management



Date SEPT 15/2017 Plan Number GTS-0161A/D Rev 1

REFERENCE: CN\_TS-161A/D Sheet 2 OF 2

ALL METRIC MEASUREMENTS, MILLIMETERS UNLESS STATED OTHERWISE, ARE A ROUNDED SOFT CONVERSION OF BRITISH UNITS SHOWN IN BRACKETS

BILL OF MATERIALS FOR GTS-0161							
ITEM	DESCRIPTION	STANDARD DRAWING	MARK NO.	QUANTITY			
				A	B	C	D
<b>SWITCH PACK</b>							
1	1st. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP100/GP100	1	1	1	1
2	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP107/GP101	1	-	-	-
	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP105/GP101	-	1	-	-
	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP104/GP102	-	-	1	-
	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP101/GP109	-	-	-	1
3	3rd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP108/GP101	1	-	-	-
	3rd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP106/GP104	-	1	-	-
	3rd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP104/GP103	-	-	1	-
	3rd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP101/GP110	-	-	-	1
4	MILD STEEL STRAP	GTS-0356C	356C	1	1	1	1
5	MILD STEEL STRAP	GTS-0356D	356D	1	1	1	1
6	MILD STEEL STRAP	GTS-0356A	356A	1	1	1	1
7	DOUBLE SPRING WASHER - TYPE FE6	GTS-1310	-	30	30	30	30
8	SWITCH ROD	GTS-0344B	344B	1	1	1	1
9	SWITCH ROD	GTS-0344D	344D	1	1	1	1
10	RIGHT SAMSON POINT RAIL	GTS-0320A	320A	-	-	1	1
	RIGHT POINT RAIL	GTS-0317A	317A	1	1	-	-
11	LEFT SAMSON POINT RAIL	GTS-0320B	320B	1	1	1	1
	LEFT POINT RAIL	GTS-0317B	317B	-	-	1	1
12	SWITCH PLATE	GTS-0508	SP315	4	4	4	4
13	SWITCH PLATE	GTS-0509	SP316	6	6	6	6
14	SWITCH PLATE	GTS-0510	SP317	2	2	2	2
15	SWITCH PLATE	GTS-0511	SP335	2	2	2	2
16	SWITCH PLATE	GTS-0511	SP336	2	2	2	2
17	SWITCH PLATE	GTS-0511	SP337	2	2	2	2
18	HOOK TWIN TIE PLATE	GTS-0503	LR23	6	6	6	6
19	HOOK TWIN TIE PLATE	GTS-0503	L23	6	6	6	6
20	HOOK TWIN TIE PLATE	GTS-0503	LR27	8	8	8	8
21	HOOK TWIN TIE PLATE	GTS-0503	L27	8	8	8	8
22	HOOK TWIN TIE PLATE	GTS-0503	LR31	4	4	4	4
23	HOOK TWIN TIE PLATE	GTS-0503	L31	3	3	3	3
24	HOOK TWIN TIE PLATE	GTS-0503	L31J	1	1	1	1
25	HEEL BLOCK	GTS-0360	16-6&22GP1-S	2	2	2	2
26	BENT SPLICE BAR(4 HOLE) - 132/136 LB. R.E.	GTS-1204D	1204D	2	2	2	2
27	STRAIGHT SPLICE BAR (4 HOLE) - 132/136 LB. R.E.	GTS-1203	-	1	1	1	1
28	SPRING WASHER for 1 - 1/8" DIA. BOLT	GTS-1301	-	8	8	8	8
29	1 - 1/8" DIA. - 7 NC OVAL NECK TRACK BOLT X 12 - 1/2" LG. C/W SQ. NUT	GTS-1320/4	-	8	8	8	8
30	PIPE THIMBLE - 1 - 1/4" DIA. X 2 - 3/8" LONG	GTS-0345J	J	2	2	2	2
31	ADJUSTABLE RAIL BRACE	GTS-0354	132M-14	12	12	12	12
32	7/8" DIA. 9 UNC SQ. HD. BOLT X 3-3/4" LG.	GTS-1308/5	-	24	24	24	24
33	SPRING WASHER for 7/8" DIA. BOLT	GTS-1301	-	24	24	24	24
34	DOUBLE WASHER	GTS-0354	M-10	12	12	12	12
35	DOUBLE NUT	GTS-0354	M-9	12	12	12	12
36	UNDERCUT STOCK RAIL - 132 LB. R.E. 39' - 0" LG.	GTS-1105C	1105C	1	1	1	1
37	PANDROL CLIP - PR 631A	GTS-1322	-	2	2	2	2
<b>FROG</b>							
38	#10-132 LB. RAIL BOUND MANGANESE STEEL FROG	GTS-0823	-	1	1	1	1
<b>FROG PACK</b>							
39	HOOK TWIN TIE PLATE	GTS-0503	L23	8	8	8	8
40	HOOK TWIN TIE PLATE	GTS-0503	LR27	2	2	2	2
41	HOOK TWIN TIE PLATE	GTS-0503	L27	10	10	10	10
42	HOOK TWIN TIE PLATE	GTS-0503	LR31	2	2	2	2
43	HOOK TWIN TIE PLATE	GTS-0503	L31	2	2	2	2
44	HOOK TWIN TIE PLATE	GTS-0503	LR23J	2	2	2	2
45	HOOK TWIN TIE PLATE	GTS-0503	L23J	2	2	2	2
46	HOOK TWIN TIE PLATE	GTS-0503	LR27J	2	2	2	2
47	HOOK TWIN TIE PLATE	GTS-0503	L27J	2	2	2	2
48	STRAIGHT SPLICE BAR (4 HOLE) - 132/136 LB. R.E.	GTS-1203	-	4	4	4	4
49	SPRING WASHER for 1 - 1/8" DIA. BOLT	GTS-1301	-	16	16	16	16
50	1 - 1/8" DIA. - 7 NC OVAL NECK TRACK BOLT X 5-7/8" LG. C/W SQ. NUT	GTS-1320/1	-	16	16	16	16
<b>GUARD RAIL PACK</b>							
51	FROG GUARD RAIL 11' - 0" LONG	GTS-1106	-	2	2	2	2
52	HOOK TWIN TIE PLATE	GTS-0503	L23	32	32	32	32
53	SPRING WASHER for 1 - 3/8" DIA BOLT	GTS-1301	-	12	12	12	12
54	1 - 3/8" DIA. 6 UNC SQ. HD. BOLT X 9-1/2" LG. C/W SQ. NUT	GTS-1309/100	-	4	4	4	4
55	1 - 3/8" DIA. 6 UNC SQ. HD. BOLT X 10-1/2" LG. C/W SQ. NUT	GTS-1309/102	-	4	4	4	4
56	1 - 3/8" DIA. 6 UNC SQ. HD. BOLT X 11" LG. C/W SQ. NUT	GTS-1309/104	-	4	4	4	4
57	HEAD WASHER	GTS-0837J	837J	12	12	12	12
58	END CASTING LEFT HAND 132 LB. R.E.	GTS-0848	GG2-S	2	2	2	2
59	END CASTING RIGHT HAND 132 LB. R.E.	GTS-0848	GG3-S	2	2	2	2
60	TAIL WASHER (BEVELLED)	GTS-0837B	837B	8	8	8	8
61	TAIL WASHER (NOT BEVELLED)	GTS-0837K	837K	4	4	4	4
62	ADJUSTABLE BLOCK 132 LB. R.E.	GTS-0848	GG1-S	8	8	8	8
***TO UPGRADE EXISTING TURNOUT, REPLACE 132 LB. PLATES WITH EQUIVALENT 136 LB. PLATES. ***							
*** MINOR TIE SPACING ADJUSTMENTS MAY BE NECESSARY. ***							
<b>TURNOUT PACKAGES</b>							
<b>TURNOUT NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY PER TURNOUT</b>					
GTS- 161A	FROG RBM 10 - 132	1					
	SW-PK INS SAMSON PO NO. 10A - 132 LBS.	1					
	GR-PK 132 11' - 0"	1					
	FR-PK RBM 10 - 132	1					
GTS- 161B	FROG RBM 10 - 132	1					
	SW-PK INS SAMSON PO NO. 10B - 132 LBS.	1					
	GR-PK 132 11' - 0"	1					
	FR-PK RBM 10 - 132	1					
GTS- 161C	FROG RBM 10 - 132	1					
	SW-PK INS SAMSON PO NO. 10C - 132 LBS.	1					
	GR-PK 132 11' - 0"	1					
	FR-PK RBM 10 - 132	1					
GTS- 161D	FROG RBM 10 - 132	1					
	SW-PK INS SAMSON PO NO. 10D - 132 LBS.	1					
	GR-PK 132 11' - 0"	1					
	FR-PK RBM 10 - 132	1					
<b>ABBREAVATIONS</b>							
SW - PK - SWITCH PAK		SAM - SAMSON		SGM - SELF GUARD MANGANESE			
FR - PK - FROG PAK		HO - HAND OPERATED		RBM - RAIL BOUND MANGANESE			
GR - PK - GUARD RAIL PAK		SO - SPRING OPERATED					
INS - INSULATED		PO - POWER OPERATED					
NOTE:							
1 - For a new installation, necessary rail, bonded insulated joints, splice bars, bolts, washers, rail anchors, connecting rod, switch stand, targe and reflectorized target kit may be required in addition to the materials listed above							
BILL OF SWITCH TIES FOR HAND AND SPRING OPERATION				BILL OF SWITCH FOR POWER OPERATION			
TIES 180 X 230 mm (7" X 9")				TIES 180 X 230 mm (7" X 9")			
<b>LENGTH</b>							
<b>METRES</b>	<b>FEET/INCHES</b>		<b>NO. OF PIECES</b>				
2.8	9' - 0"		19				
3.1	10' - 0"		10				
3.4	11' - 0"		7				
3.7	12' - 0"		8				
4.0	13' - 0"		6				
4.3	14' - 0"		6				
4.6	15' - 0"		6				
4.9	16' - 0"		6				
TOTAL NUMBER OF TIES - 68							