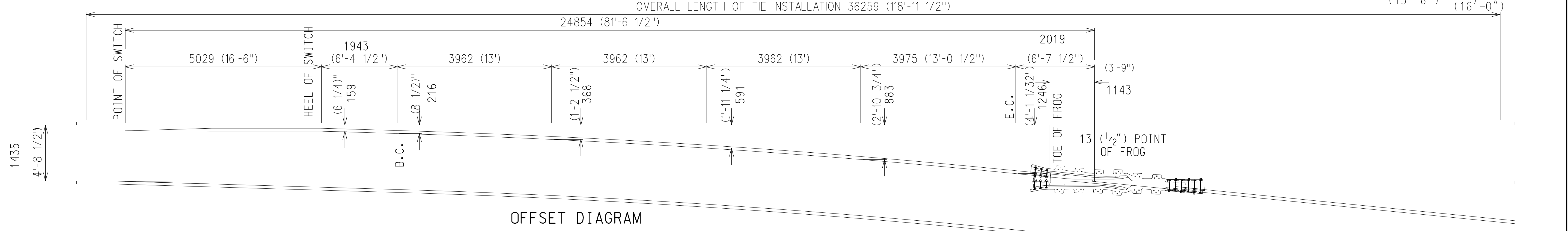
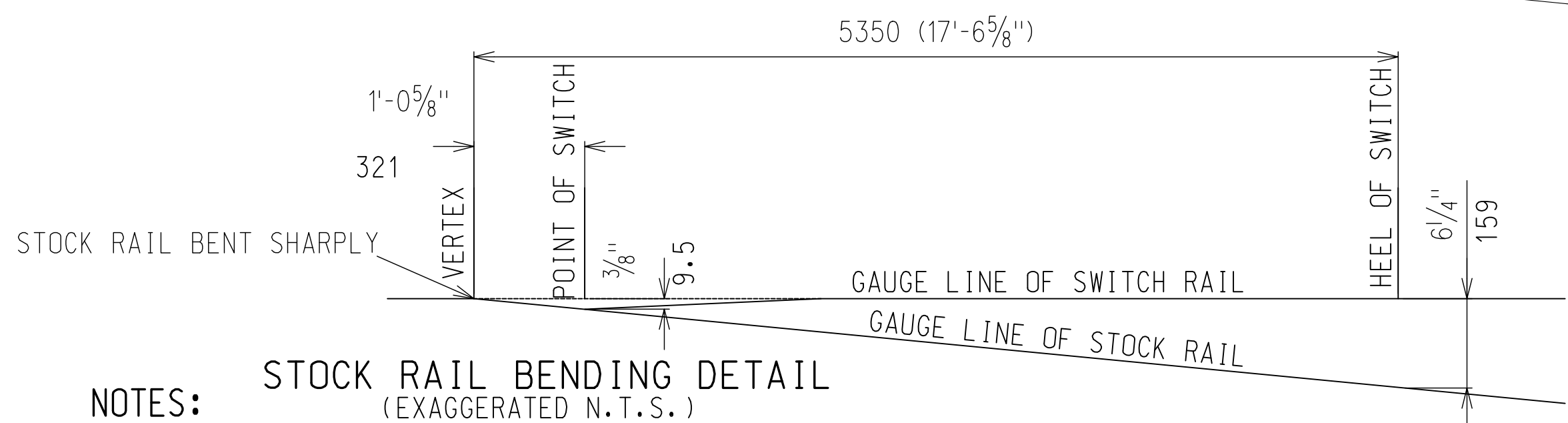


TIE ARRANGEMENT & SPACING



OFFSET DIAGRAM



NOTES: 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 1/4")
 LEAD 24854 (81'-6 1/2")
 P.S. TO H.F. 27178 (89'-2")
 18682 (61'-3 1/2") STRAIGHT CLOSURE LENGTH MADE UP BY A 18682 (61'-3 1/2") RAIL OR:
 A 11887 (39') & 6795 (22'-3 1/2") RAIL
 A 10973 (36') & 7709 (25'-3 1/2") RAIL
 A 10058 (33') & 8624 (28'-3 1/2") RAIL
 18732 (61'-5 1/2") CURVED CLOSURE LENGTH MADE UP BY A 17856 (58'-7") RAIL OR:
 A 11887 (39') & 6845 (22'-5 1/2") RAIL
 A 10973 (36') & 7759 (25'-5 1/2") RAIL
 A 10058 (33') & 8674 (28'-5 1/2") RAIL

- TURNOUT TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE LATEST ISSUE OF: GO TRANSIT TRACK STANDARDS RC-0506-02TRK SECTION 16-TURNOUT INSPECTION
- 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
- FOR THE VARIOUS STANDARD TURNOUT COMBINATIONS SEE INDEX SHEET GTS-0000
- 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		

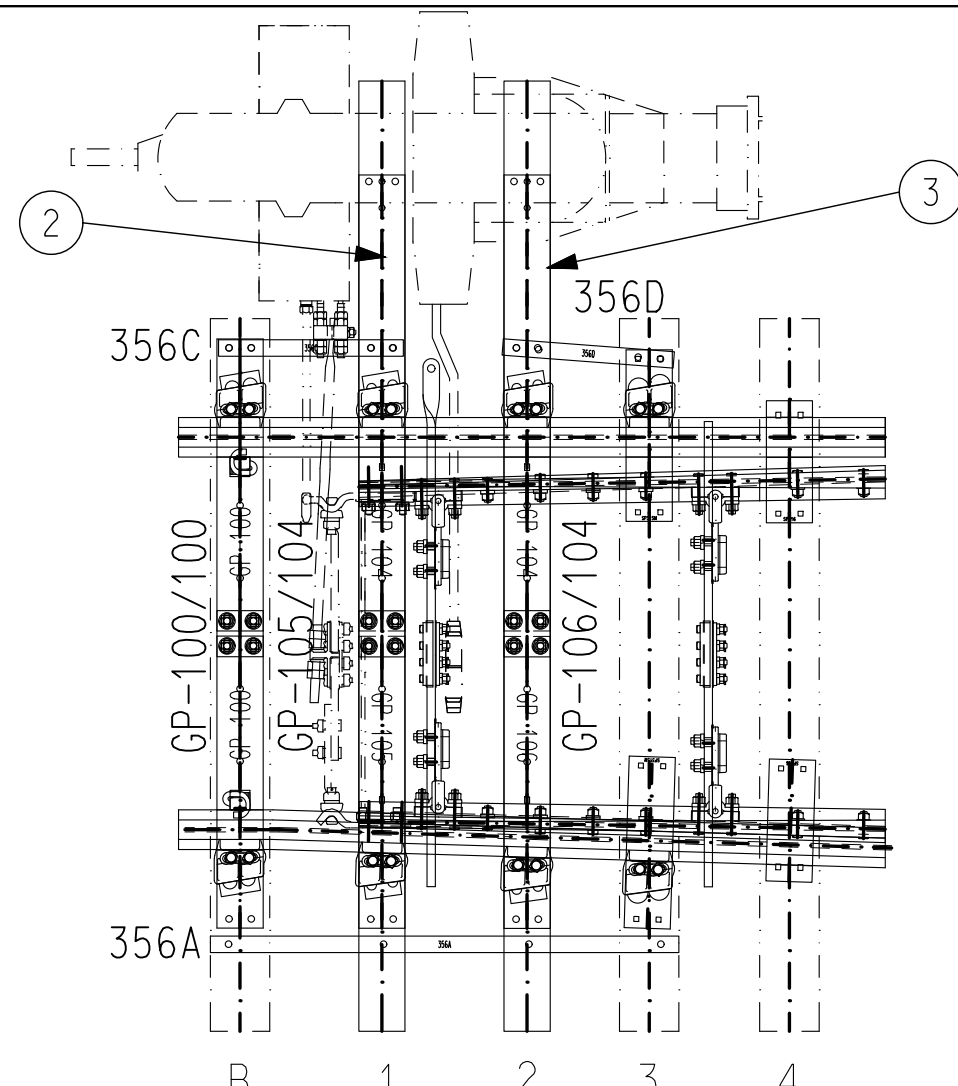
Standard: NO. 10 TURNOUT-16'6" POINTS POWER OPERATED-SAMSON POINTS S.G.M. FROG-132 LB. R.E. RAIL

Drawn AZ Checked BC Approved *[Signature]*

Date: SEPT 15/2017 Plan Number: GTS-0160A/D Rev 1

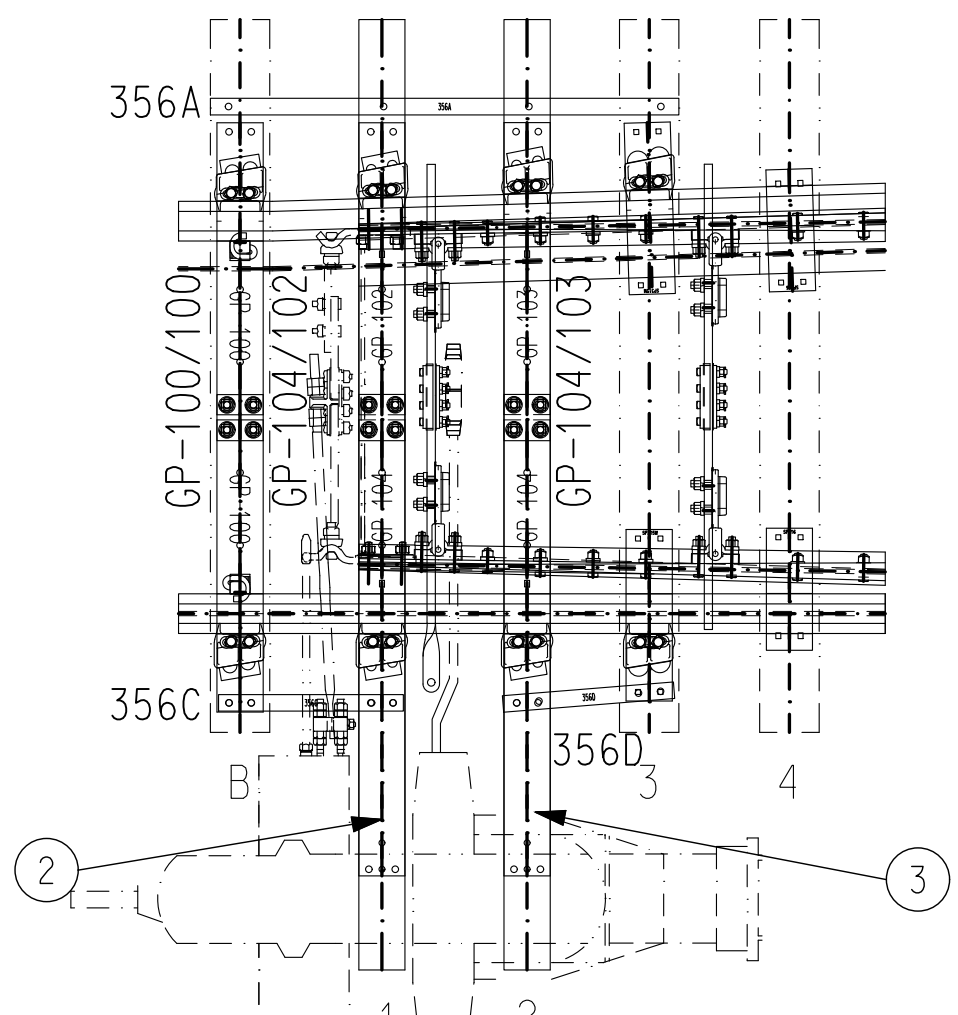
REFERENCE: CN_TS-160A/D Sheet 1 OF 2





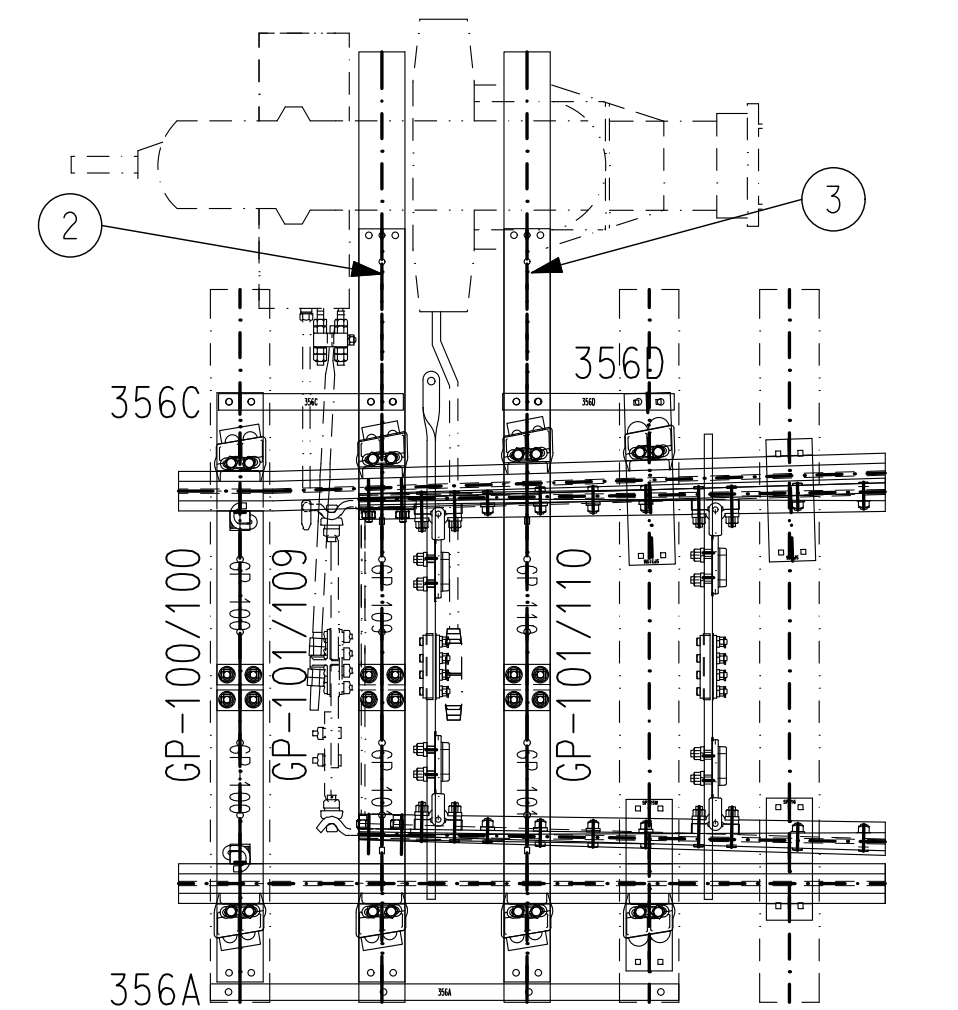
DRAWING GTS-0160 B
RIGHT HAND TURNOUT
MACHINE MOUNTED ON LEFT

REFERENCE DRAWING:
GTS-0356 FOR TIE SPACING STRAP DETAIL



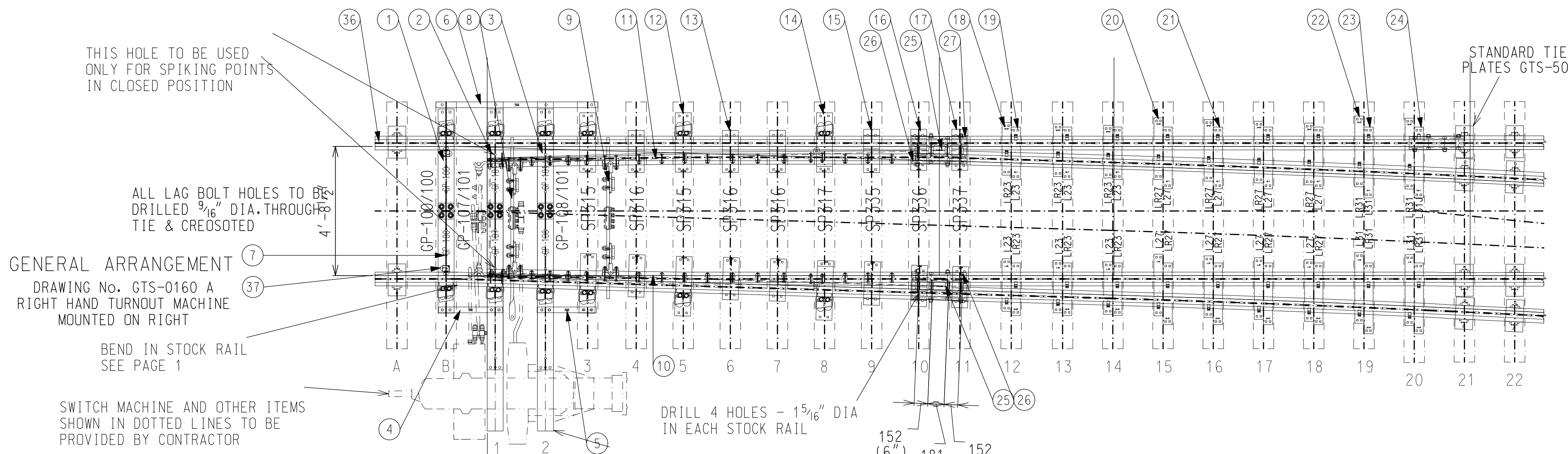
DRAWING GTS-0160 C
LEFT HAND TURNOUT
MACHINE MOUNTED ON RIGHT

REFERENCE DRAWING: GTS-0356 FOR TIE SPACING STRAP DETAIL



DRAWING GTS-0160 D
LEFT HAND TURNOUT
MACHINE MOUNTED ON LEFT

REFERENCE DRAWING: GTS-0356 FOR TIE SPACING STRAP DETAIL



GENERAL ARRANGEMENT

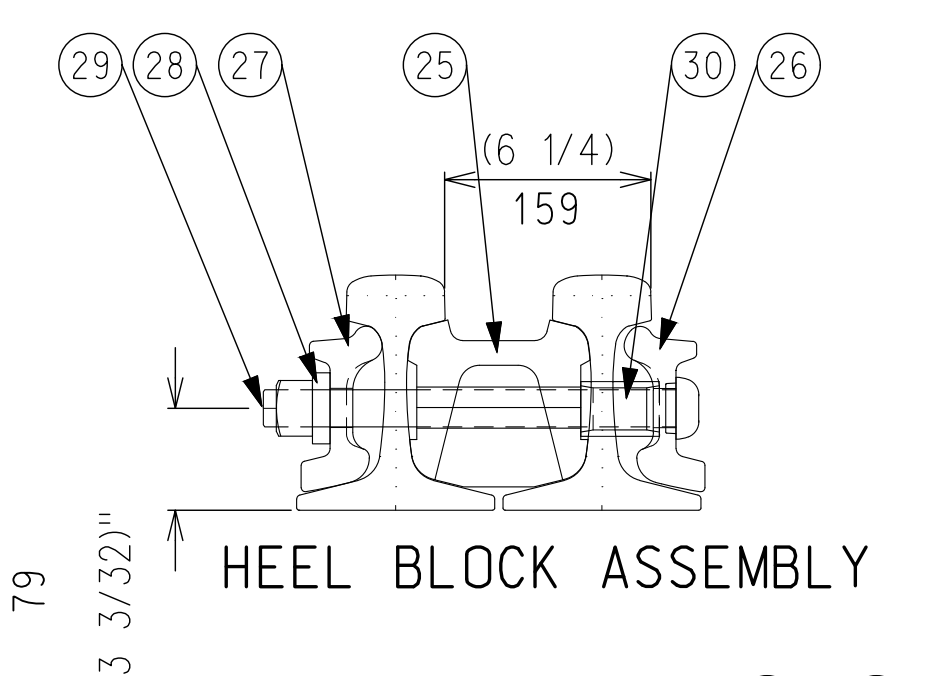
DRAWING No. GTS-0160 A
RIGHT HAND TURNOUT MACHINE
MOUNTED ON RIGHT

BEND IN STOCK RAIL
SEE PAGE 1

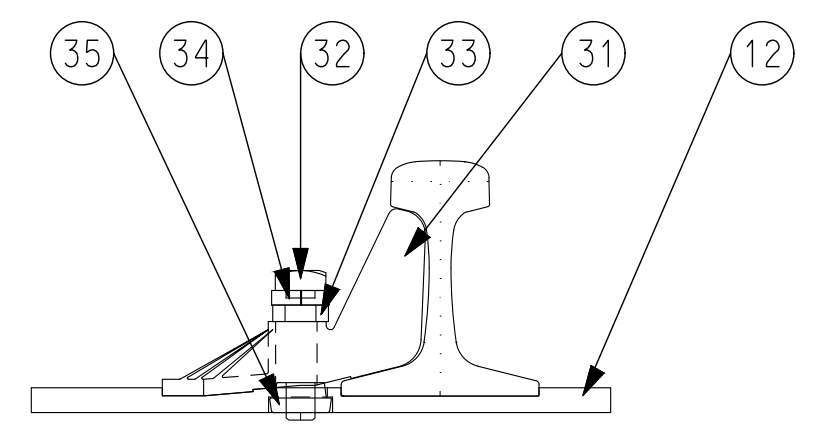
SWITCH MACHINE AND OTHER ITEMS
SHOWN IN DOTTED LINES TO BE
PROVIDED BY CONTRACTOR

NOT LESS THAN 1370 (4'-6")
TO NEAREST JOINT

INSTALL TIES 1 AND 2 ON
SIDE SO TIE BECOMES 7"
WIDE BY 9" DEEP

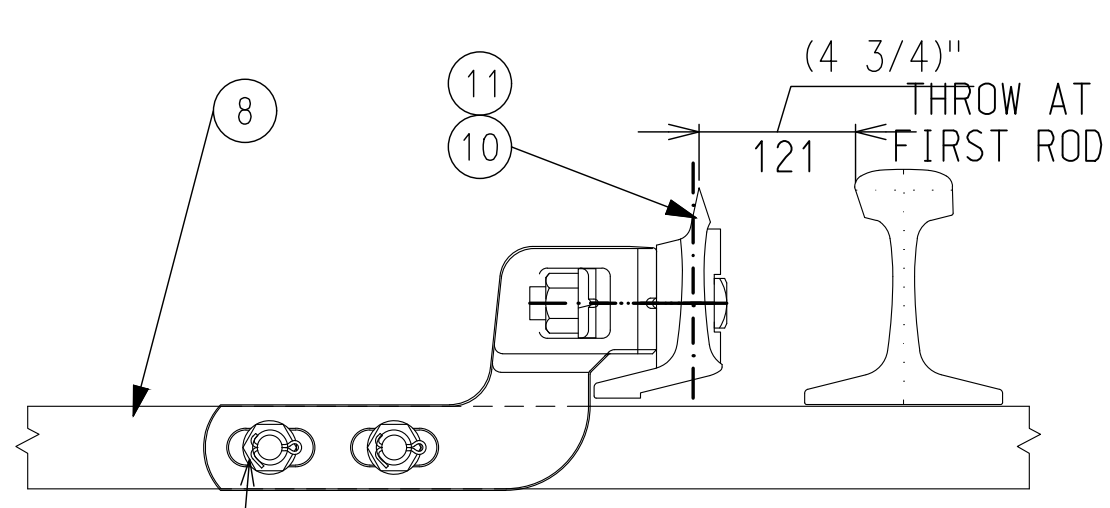


HEEL BLOCK ASSEMBLY

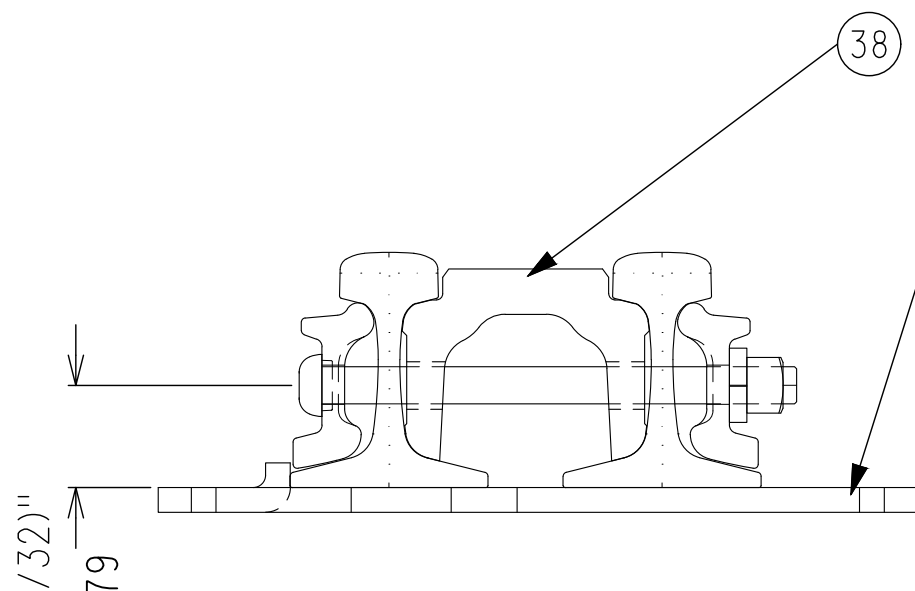


ADJUSTABLE RAIL BRACE ASSEMBLY

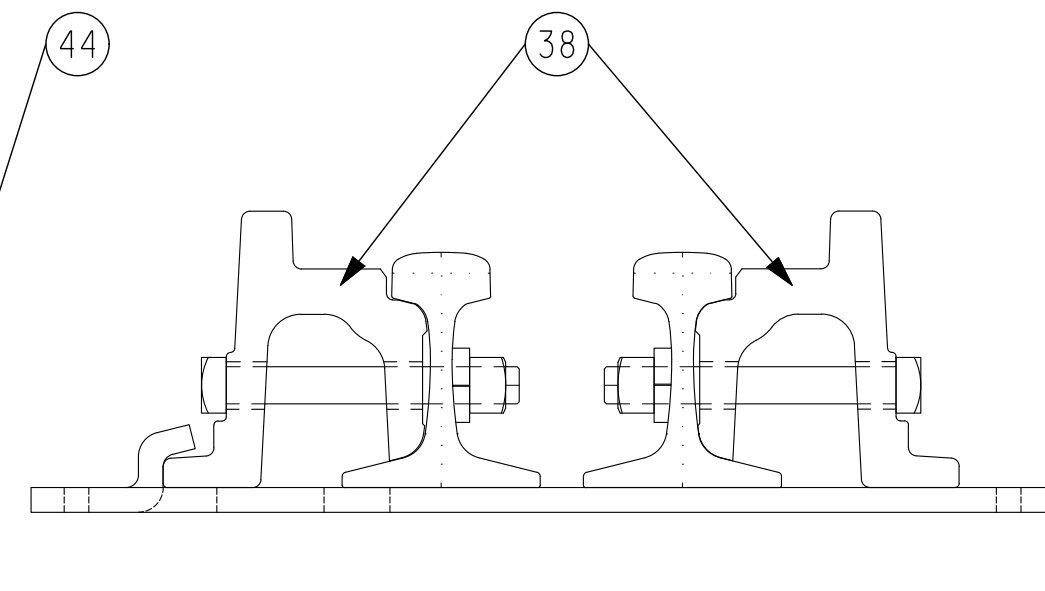
FOR REPLACEMENT OF BOLTS,
CLIPS, OR STOPS IN FIELD SEE
STANDARD PLAN No. GTS-0317 KNIFE EDGE
GTS-0320 SAMSON (SHOWN)



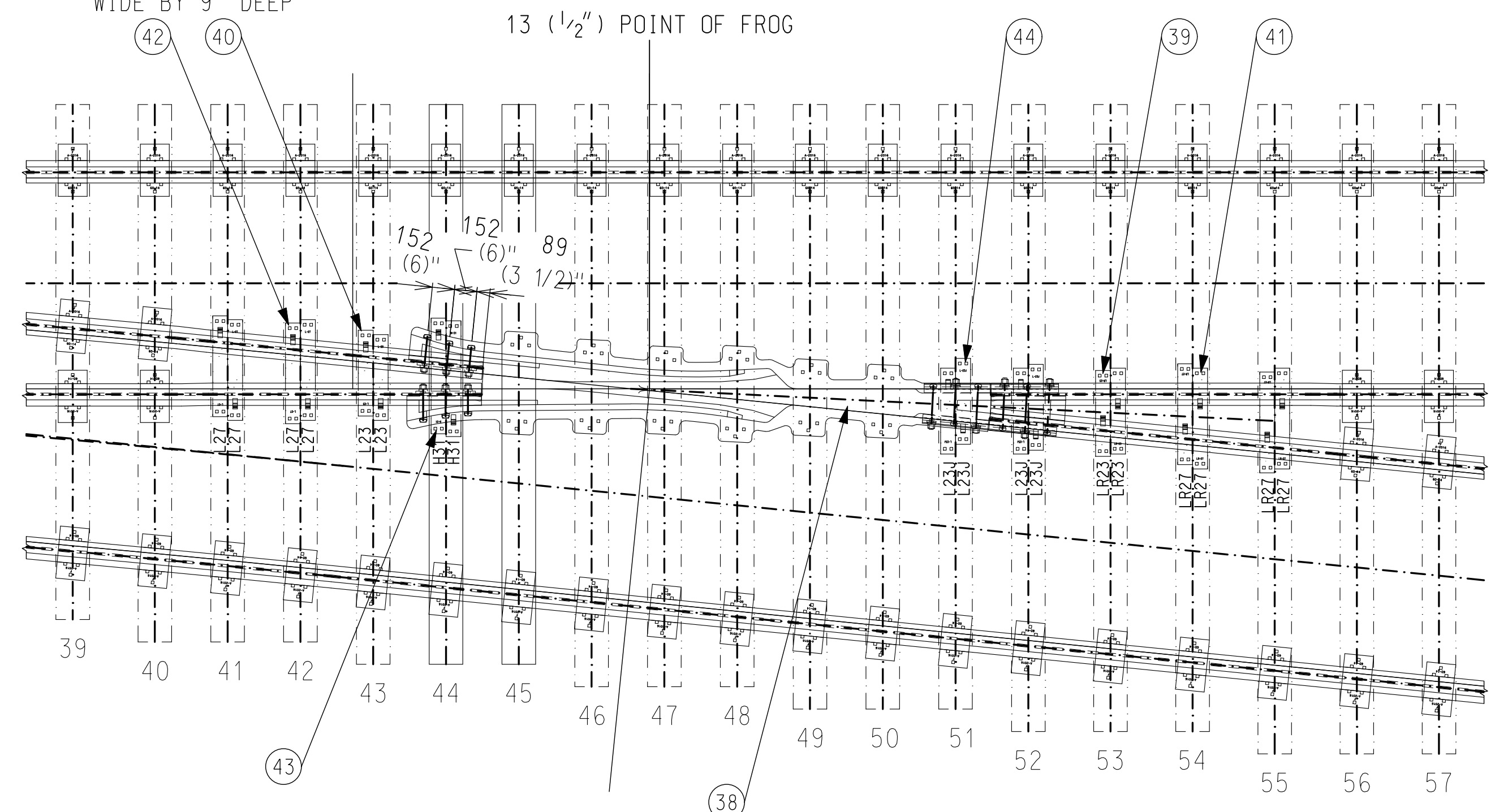
"MJ" CLIP ASSEMBLY



HEEL OF FROG ASSEMBLY



TOE OF FROG ASSEMBLY



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
S.G.M. FROG-132 LB. R.E. RAIL**

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



Date **SEPT 15/2017** Plan Number **GTS-0160A/D** Rev **1**

REFERENCE: CN_TS-160A/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-0160

ITEM	DESCRIPTION	STANDARD DRAWING	MARK NO.	QUANTITY			
				A	B	C	D
SWITCH PACK							
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	GP14/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
FROG							
38	#10-132 LB. SELF GUARDED MANGANESE STEEL FROG (INTEGRAL BASE)	D-10229 NOR	-	1	1	1	1
FROG PACK							
39	HOOK TWIN TIE PLATE	GTS-0503	LR23	2	2	2	2
40	HOOK TWIN TIE PLATE	GTS-0503	L23	2	2	2	2
41	HOOK TWIN TIE PLATE	GTS-0503	LR27	4	4	4	4
42	HOOK TWIN TIE PLATE	GTS-0503	L27	4	4	4	4
43	HOOK TWIN TIE PLATE	GTS-0503	H31	2	2	2	2
44	HOOK TWIN TIE PLATE	GTS-0503	L23J	4	4	4	4
	STRAIGHT SPLICE BAR (6 HOLE) - 132/136 LB. R.E.	GTS-1203	-	1	1	1	1
***TO UPGRADE EXISTING TURNOUT, REPLACE 132 LB. PLATES WITH EQUIVALENT 136 LB. PLATES. ***							
*** MINOR TIE SPACING ADJUSTMENTS MAY BE NECESSARY. ***							
TURNOUT PACKAGES							
TURNOUT NUMBER	DESCRIPTION			QUANTITY PER TURNOUT			
GTS- 160A	FROG SGM 10 - 132			1			
	SW-PK INS SAMSON PO NO. 10A - 132 LBS.			1			
	FR-PK SGM 10 - 132			1			
GTS- 160B	FROG SGM 10 - 132			1			
	SW-PK INS SAMSON PO NO. 10B-132 LBS.			1			
	FR-PK SGM 10 - 132			1			
GTS- 160C	FROG SGM 10 - 132			1			
	SW-PK INS SAMSON PO NO. 10C-132 LBS.			1			
	FR-PK SGM 10 - 132			1			
GTS- 160D	FROG SGM 10 - 132			1			
	SW-PK INS SAMSON PO NO. 10D-132 LBS.			1			
	FR-PK SGM 10 - 132			1			
ABBREAVATIONS							
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")			
LENGTH							
METRES	FEET/INCHES			NO. OF PIECES			
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							