



TURNOUT DATA:

FROG NO -----10

LENGTH OF SWITCH-----16'-6"

HEEL SPREAD-----6 1/4"

LEAD-----81'-6 1/2"

PS TO H.F.-----88'-0 1/2"

58'-5" STRAIGHT CLOSURE LENGTH MADE UP BY A 58'-5" RAIL OR:
A 39' AND 19'-5" RAIL
A 36' AND 22'-5" RAIL
A 33' AND 25'-5" RAIL
A 30' AND 28'-5" RAIL

58'-7" CURVE CLOSURE LENGTH MADE UP BY A 58'-7" RAIL OR:
A 39' AND 19'-7" RAIL
A 36' AND 22'-7" RAIL
A 33' AND 25'-7" RAIL
A 30' AND 28'-7" RAIL

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 R.B.M. FROG 132LB. A.R.A.A. RAIL
Drawn	Checked	Approved
MG	GGG	Engineering & Asset Management
Date DEC 15, 2017		Plan Number GTS-0158 Rev 1
REFERENCE: TS-158 A/D		Sheet 1 OF 1

BILL OF MATERIALS FOR GTS-0158

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-0356A	356A	1	1	1	1
5	MILD STEEL STRAP	GTS-0356D	356D	1	1	1	1
6	MILD STEEL STRAP	GTS-0356C	356C	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 POINT RAIL	GTS-0317A	317A	1	1	1	1
11	LEFT POINT RAIL	GTS-0317B	317B	1	1	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	4	4	4	4
24	HEEL BLOCK	GTS-0360	16-6&22GP1-S	2	2	2	2
25	BENT SPLICE BAR(4 HOLE) - 132/136 LB. R.E.	GTS-1204D	1204D	2	2	2	2
26	STRAIGHT SPLICE BAR (4 HOLE) - 132/136 LB. R.E.	GTS-1203	-	1	1	1	1
27	SPRING WASHER for 1 - 1/8" DIA. BOLT	GTS-1301	-	8	8	8	8
28	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
29	PIPE THIMBLE - 1 - 1/4" DIA. X 2 - 3/8" LONG	GTS-0345J	J	2	2	2	2
30	ADJUSTABLE RAIL BRACE	GTS-0354	132M-14	12	12	12	12
31	7/8" DIA. 9 UNC SQ. HD. BOLT X 3-3/4" LG.	GTS-1308/5	-	24	24	24	24
32	SPRING WASHER for 7/8" DIA. BOLT	GTS-1301	-	24	24	24	24
33	DOUBLE WASHER	GTS-0354	M-10	12	12	12	12
34	DOUBLE NUT	GTS-0354	M-9	12	12	12	12
35	PANDROL CLIP - PR 631A	GTS-1322	-	2	2	2	2
FROG							
36	#10-132 LB. RAIL BOUND MANGANESE STEEL FROG	GTS-0823	-	1	1	1	1
FROG PACK							
37	HOOK TWIN TIE PLATE	GTS-0503	L23	8	8	8	8
38	HOOK TWIN TIE PLATE	GTS-0503	LR27	2	2	2	2
39	HOOK TWIN TIE PLATE	GTS-0503	L27	10	10	10	10
40	HOOK TWIN TIE PLATE	GTS-0503	LR31	2	2	2	2
41	HOOK TWIN TIE PLATE	GTS-0503	L31	2	2	2	2
42	HOOK TWIN TIE PLATE	GTS-0503	LR23J	2	2	2	2
43	HOOK TWIN TIE PLATE	GTS-0503	L23J	2	2	2	2
44	HOOK TWIN TIE PLATE	GTS-0503	LR27J	2	2	2	2
45	HOOK TWIN TIE PLATE	GTS-0503	L27J	2	2	2	2
46	STRAIGHT SPLICE BAR (4 HOLE) - 132/136 LB. R.E.	GTS-1203	-	4	4	4	4
47	SPRING WASHER for 1 - 1/8" DIA. BOLT	GTS-1301	-	16	16	16	16
48	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
GUARD RAIL PACK							
49	FROG GUARD RAIL 11' - 0" LONG	GTS-1106	-	2	2	2	2
50	HOOK TWIN TIE PLATE	GTS-0503	L23	32	32	32	32
51	SPRING WASHER for 1 - 3/8" DIA BOLT	GTS-1301	-	12	12	12	12
52	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
53	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
54	1 - 3/8" DIA. 6 UNC SQ. HD. BOLT X 11" LG. C/W SQ. NUT	GTS-1309/104	-	4	4	4	4
55	HEAD WASHER	GTS-0837J	837J	12	12	12	12
56	END CASTING LEFT HAND 132 LB. R.E.	GTS-0848	GG2-S	2	2	2	2
57	END CASTING RIGHT HAND 132 LB. R.E.	GTS-0848	GG3-S	2	2	2	2
58	TAIL WASHER (BEVELLED)	GTS-0837B	837B	8	8	8	8
59	TAIL WASHER (NOT BEVELLED)	GTS-0837K	837K	4	4	4	4
60	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. ***							
TURNOUT PACKAGES							
TURNOUT NUMBER	DESCRIPTION	QUANTITY PER TURNOUT					
GTS- 158A	FROG RBM 10 - 132	1					
	SW-PK INS HO NO. 10A - 132 LBS.	1					
	GR-PK 132 11' - 0"	1					
	FR-PK RBM 10 - 132	1					
GTS- 158B	FROG RBM 10 - 132	1					
	SW-PK INS HO NO. 10B - 132 LBS.	1					
	GR-PK 132 11' - 0"	1					
	FR-PK RBM 10 - 132	1					
GTS- 158C	FROG RBM 10 - 132	1					
	SW-PK INS HO NO. 10C - 132 LBS.	1					
	GR-PK 132 11' - 0"	1					
	FR-PK RBM 10 - 132	1					
GTS- 158D	FROG RBM 10 - 132	1					
	SW-PK INS HO NO. 10D - 132 LBS.	1					
	GR-PK 132 11' - 0"	1					
	FR-PK RBM 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							