



NOTES

1- TURNOUT TO BE INSTALLED AND MAINTAINED IN ACCORDING WITH THE LATEST ISSUE OF THE STANDARD PRACTICE CIRCULAR.

2- WHEN REFERRING TO POWER OPERATED TURNOUTS, DRAWING NUMBER MUST BE STATED AS A, B,C OR D:
 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 OTHER TURNOUT COMBINATIONS SEE INDEX SHEET GTS-0000 SHEETS 1 TO 3

4- TURNOUT GEOMETRY, FOR TABLES OF DIMENSIONS AND OFFSETS SEE GTS-0005 NO 20 TURNOUTS.

TURNOUT DATA

FROG No 20
 LENGTH OF SWITCH PT 11887 (39'-0")
 HEEL SPREAD 159 (6")
 LEAD 47561 (156'-0 1/2")
 P.S. TO H.F. 53606 (175'-10 1/2")

21031 (69') STRAIGHT CLOSURE LENGTHS
 MADE UP BY A :
 23774 (78'-0") AND 8534 (28'-0")
 OR 2-11887 (39') AND 8534 (28'-0")

32334 (106'-1") CURVED CLOSURE LENGTHS
 MADE UP BY A :
 11887 (39') AND 20447 (67'-1")
 OR 2-11887 (39') AND 8560 (28'-1") RAIL.

METRIC CONVERSION: 1 inch=25.4mm, 1 foot=304.8mm		
No.	Date	Revision
1	18/07/27	ADDED IMPERIAL TO METRIC CONVERSION NOTE
		By Approved
Standard		
NO. 20 LATERAL TURNOUT		
39'-0" POWER OPERATED-SAMSON		
POINT SWITCH UNIFORM RISER DESIGN		
R.B.M. FROG-132LB RAIL-WOOD TIES		
Drawn	Checked	Approved
MG	GGG	VP Engineering & Asset Management
Date	Plan Number	Rev
DEC 15, 2017	GTS-0261	1
REFERENCE: TS-261 A/D		Sheet 1 OF 1

BILL OF MATERIALS FOR GTS-0261

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	GP119/GP101	1	-	-	-
	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP121/GP104	-	1	-	-
	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP104/GP123	-	-	1	-
	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP101/GP125	-	-	-	1
3	3rd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP120/GP101	1	-	-	-
	3rd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP122/GP104	-	1	-	-
	3rd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP104/GP124	-	-	1	-
	3rd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP101/GP126	-	-	-	1
4	MILD STEEL STRAP	GTS-0356C	356C	2	2	2	2
5	SWITCH ROD	GTS-0344B	344B	1	1	1	1
6	SWITCH ROD	GTS-0344C	344C	3	3	3	3
7	SWITCH ROD	GTS-0344D	344D	1	1	1	1
8	RIGHT SAMSON POINT RAIL	GTS-0337G	337G	1	1	-	-
	RIGHT SAMSON CURVED POINT RAIL	GTS-0337C	337C	-	-	1	1
9	LEFT SAMSON POINT RAIL	GTS-0337H	337H	-	-	1	1
	LEFT SAMSON CURVED POINT RAIL	GTS-0337B	337B	1	1	-	-
10	SWITCH PLATE	GTS-0508	SP315	20	20	20	20
11	SWITCH PLATE	GTS-0509	SP316	26	26	26	26
12	SWITCH PLATE	GTS-0504	SP338	2	2	2	2
13	SWITCH PLATE	GTS-0512	SP339	2	2	2	2
14	SWITCH PLATE	GTS-0528	SP340	2	2	2	2
15	SWITCH PLATE	GTS-0528	SP341	2	2	2	2
16	SWITCH PLATE	GTS-0528	SP342	2	2	2	2
17	SWITCH PLATE	GTS-0528	SP343	2	2	2	2
18	SWITCH PLATE	GTS-0528	SP344	2	2	2	2
19	SWITCH PLATE	GTS-0528	SP345	2	2	2	2
20	HOOK TWIN TIE PLATE	GTS-0503	LR27	14	14	14	14
21	HOOK TWIN TIE PLATE	GTS-0503	L27	12	12	12	12
22	HOOK TWIN TIE PLATE	GTS-0503	LR31	4	4	4	4
23	HOOK TWIN TIE PLATE	GTS-0503	L31	2	2	2	2
24	HOOK TWIN TIE PLATE	GTS-0503	L27J	4	4	4	4
25	HEEL BLOCK (RIGHT HAND)	GTS-0361	39GP1-S	1	1	1	1
26	HEEL BLOCK (LEFT HAND)	GTS-0361	39GP2-S	1	1	1	1
27	BENT SPLICE BAR(4 HOLE) - 132/136 LB. R.E.	GTS-1204E	1204E	2	2	2	2
28	STRAIGHT SPLICE BAR (4 HOLE) - 132/136 LB. R.E.	GTS-1203	-	1	1	1	1
29	PIPE THIMBLE - 1 - 1/4" DIA. X 2 - 1/4" LONG	GTS-1320/4	-	8	8	8	8
30	1 - 1/8"DIA. - 7 NC OVAL NECK TRACK BOLT X 12 - 1/2" LG. C/W SQ. NUT	GTS-1301	-	8	8	8	8
31	SPRING WASHER for 1 - 1/8" DIA. BOLT	GTS-0345H	H	2	2	2	2
32	ADJUSTABLE RAIL BRACE	GTS-0354	132M-14	26	26	26	26
33	7/8" DIA. 9 UNC SQ. HD. BOLT X 3-3/4" LG.	GTS-1308/5	-	52	52	52	52
34	SPRING WASHER for 7/8" DIA. BOLT	GTS-1301	-	52	52	52	52
35	DOUBLE WASHER	GTS-0354	M-10	26	26	26	26
36	DOUBLE NUT	GTS-0354	M-9	26	26	26	26
37	UNDERCUT STOCK RAIL - LEFT HAND - 132 LB. R.E. 78' - 0" LG.	GTS-1105E	1105E	1	1	-	-
	UNDERCUT STOCK RAIL - RIGHT HAND - 132 LB. R.E. 78' - 0" LG.	GTS-1105D	1105D	-	-	1	1
38	BENT UNDERCUT STOCK RAIL - R/H - 132 LB. R.E. 78' - 0" LG.	GTS-1109Z	1109Z	1	1	-	-
	BENT UNDERCUT STOCK RAIL - L/H - 132 LB. R.E. 78' - 0" LG.	GTS-1109AA	1109AA	-	-	1	1
39	PANDROL CLIP - PR 631A	GTS-1322	-	2	2	2	2
40				110	110	110	110
41	DOUBLE SPRING WASHER - TYPE FE6	GTS-1310	-	110	110	110	110
42	TRACK SPIKE - 6" LONG	GTS-1325	-	900	900	900	900
FROG							
43	#20 - 132 LB. RAIL BOUND MANGANESE STEEL FROG	R11C-652.1	-	1	1	1	1
		90-1037 ABC	-				
		D-11356 NOR	-				
FROG PACK							
44	HOOK TWIN TIE PLATE	GTS-0503	LR23	2	2	2	2
45	HOOK TWIN TIE PLATE	GTS-0503	L23	13	13	13	13
46	HOOK TWIN TIE PLATE	GTS-0503	LR27	6	6	6	6
47	HOOK TWIN TIE PLATE	GTS-0503	L27	24	24	24	24
48	HOOK TWIN TIE PLATE	GTS-0503	LR31	2	2	2	2
49	HOOK TWIN TIE PLATE	GTS-0503	L31	3	3	3	3
50	HOOK TWIN TIE PLATE	GTS-0503	LR23J	4	4	4	4
51	HOOK TWIN TIE PLATE	GTS-0503	L23J	4	4	4	4
52	STRAIGHT SPLICE BAR (4 HOLE) - 132/136 LB R.E.	GTS-1203	-	4	4	4	4
53	SPRING WASHER for 1-1/8" DIA. BOLT	GTS-1301	-	16	16	16	16
54	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
55	TRACK SPIKE - 6" LONG	GTS-1325	-	280	280	280	280
GUARD RAIL PACK							
56	FROG GUARD RAIL 16' - 6" LONG	GTS-1106	-	2	2	2	2
57	HOOK TWIN TIE PLATE	GTS-0503	L23	44	44	44	44
58	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
59	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
60	1 - 3/8" DIA. 6 UNC SQ. HD. BOLT X 11" LG. C/W SQ. NUT	GTS-1309/104	-	4	4	4	4
61	SPRING WASHER for 1 - 3/8" DIA BOLT	GTS-1301	-	12	12	12	12
62	HEAD WASHER	GTS-0837J	837J	12	12	12	12
63	END CASTING LEFT HAND 132 LB. R.E.	GTS-0848	GG2-S	2	2	2	2
64	END CASTING RIGHT HAND 132 LB. R.E.	GTS-0848	GG3-S	2	2	2	2
65	TAIL WASHER (BEVELLED)	GTS-0837B	837B	8	8	8	8
66	TAIL WASHER (NOT BEVELLED)	GTS-0837K	837K	4	4	4	4
67	ADJUSTABLE BLOCK 132 LB. R.E.	GTS-0848	GG1-S	8	8	8	8
68	TRACK SPIKE - 6" LONG	GTS-1325	-	400	400	400	400
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- 261A	FROG RBM NO. 20-132			1			
	SW-PK INS 39-0 SAM PO NO. 20A-132 LBS.			1			
	GR-PK 132 16'-6"			1			
	FR-PK RBM 20-132			1			
GTS- 261B	FROG RBM NO. 20-132			1			
	SW-PK INS 39-0 SAM PO NO. 20B-132 LBS.			1			
	GR-PK 132 16'-6"			1			
	FR-PK RBM 20-132			1			
GTS- 261C	FROG RBM NO. 20-132			1			
	SW-PK INS 39-0 SAM PO NO. 20C-132 LBS.			1			
	GR-PK 132 16'-6"			1			
	FR-PK RBM 20-132			1			
GTS- 261D	FROG RBM NO. 20-132			1			
	SW-PK INS 39-0 SAM PO NO. 20D-132 LBS.			1			
	GR-PK 132 16'-6"			1			
	FR-PK RBM 20-132			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"		29			
3.1		10' - 0"		25			
3.4		11' - 0"		16			
3.7		12' - 0"		12			
4.0		13' - 0"		11			
4.3		14' - 0"		14			
4.6		15' - 0"		16			
4.9		16' - 0"		8			
TOTAL NUMBER OF TIES - 131							