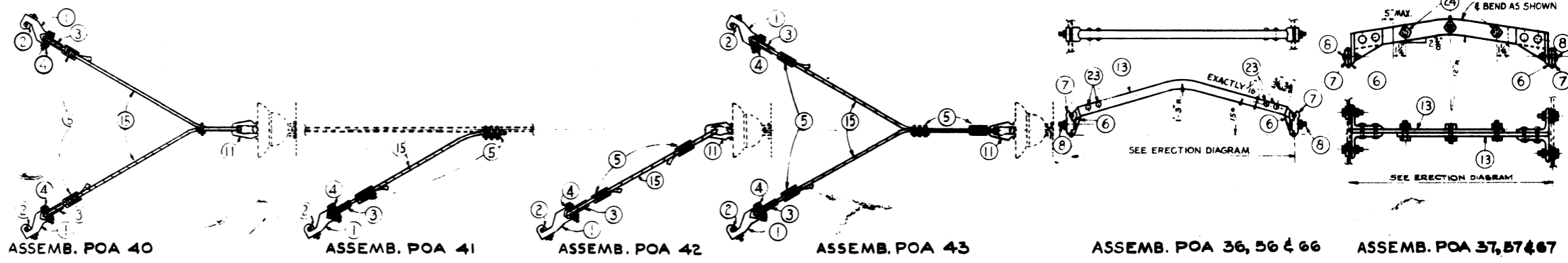


ITEM	DESCRIPTION	30a	30b	30c	60a	60b	60c
1	MESS. HOOK	MK 1	MK 1	MK 1	MK 1	MK 1	MK 1
2	J BOLT	2-JB	2-JB	2-JB	2-JB	2-JB	2-JB
3	THIMBLE	TH-3	TH-3	TH-3	TH-3	TH-3	TH-3
4	BOLT	BG-2	BG-2	BG-2	BG-2	BG-2	BG-2
5	WIRE CLIPS	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1
6	CONT. W.C.	2-BC-37	2-BC-37	2-BC-37	2-BC-37	2-BC-37	2-BC-37
7	FACING CLIP	BC-37	BC-37	BC-37	BC-37	BC-37	BC-37
8	CARRIAGE BOLT	BB-33	BB-33	BB-33	BB-33	BB-33	BB-33
9	STRAP	1130A	1130A	1130A	1130A	1130A	1130A
10	U BOLT	UB-27	UB-27	UB-27	UB-27	UB-27	UB-27
11	CLEVIS END SHK	S-10	S-10	S-10	S-10	S-10	S-10
12	BOLT	BG-4	BG-4	BG-4	BG-4	BG-4	BG-4
13	P.O. BAR	PO-3	PO-3	PO-3	PO-3	PO-3	PO-3
14	STRAND	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
15	SADDLE	1-SEE NOTE 2	1-SEE NOTE 2	1-SEE NOTE 2	1-SEE NOTE 2	1-SEE NOTE 2	1-SEE NOTE 2

ITEM	DESCRIPTION	34	64
2	J BOLT	JB-2	JB-2
4	BOLT	BG-1	BC-1
6	CONT. W.C.	TS-38	HC-29A
7	FACING CLIP	TS-38	HC-29A
8	CARRIAGE BOLT	BB-33	BB-33
10	U BOLT	UB-7	UB-27
13	P.O. BAR	1131PO	1131PO
16	SHOULDER BOLT	4-SB5	4-SB5
17	WASHER	1/2-13A	1/2-13A
18	STRAP	2-1131CD	2-1131CD
20	WASHER	1/2-13AB	1/2-13AB
25	WASHER LOCK	1/2-BOLT SIZE	1/2-BOLT SIZE
26	SADDLE	2-SEE NOTE 2	2-SEE NOTE 2

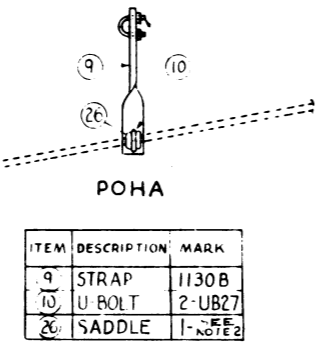
ITEM	DESCRIPTION	35a	35b	35c	65a	65b	65c
5	WIRE CLIPS	3-3/16"	3-3/16"	3-3/16"	3-3/16"	3-3/16"	3-3/16"
6	CONT. W.C.	TS-38	TS-38	TS-38	TS-38	TS-38	TS-38
7	FACING CLIP	BC-37	BC-37	BC-37	BC-37	BC-37	BC-37
8	CARRIAGE BOLT	BB-33	BB-33	BB-33	BB-33	BB-33	BB-33
11	CLEVIS END SHK	2-S10	2-S10	2-S10	2-S10	2-S10	2-S10
12	BOLT	BG-4	BG-4	BG-4	BG-4	BG-4	BG-4
13	P.O. BAR	PO-3	PO-3	PO-3	PO-3	PO-3	PO-3
21	INSULATOR	3-B1	3-B1	3-B1	3-B1	3-B1	3-B1
22	SHACKLE	S-4	S-4	S-4	S-4	S-4	S-4



ITEM	DESCRIPTION	40	41	42	43
1	MESS. HOOK	2-MK1	MK1	MK1	2-MK1
2	J BOLT	4-JB	2-JB	2-JB	4-JB
3	THIMBLE	2-TH3	TH3	TH3	2-TH3
4	BOLT	2-BG2	BG2	BG2	2-BG2
5	3/8 WIRE CLIPS	7	6	6	12
11	CLEVIS END	S10	S10	S10	S10
15	STRAND	7/16"	7/16"	7/16"	7/16"

ITEM	DESCRIPTION	36	56	66
6	CONT. W.C.	2-BC-20	2-BC-20	2-BC-20
7	FACING CLIP	2-BC-37	2-BC-37	2-BC-37
8	CARRIAGE BOLT	2-BB-33	2-BB-33	2-BB-33
13	P.O. BAR	4-PO-3	4-PO-3	4-PO-3
23	RIVET	4-1/4"	4-1/4"	4-1/4"

ITEM	DESCRIPTION	37	57	67
6	CONT. W.C.	4-TS-38	4-TS-38	4-TS-38
7	FACING CLIP	4-TS-38	4-TS-38	4-TS-38
8	CARRIAGE BOLT	4-BB-3	4-BB-3	4-BB-3
13	P.O. BAR	2-PO-20	2-PO-20	2-PO-20
24	BOLT	3-BB-9	3-BB-9	3-BB-9



REFERENCE DRAWINGS

5-MK1	ET-1146-D	BG-4	ET-145-E	HC-2	11B-1228	BB-33	ET-1148-D
TH-3	11B-1234	SB-5	ET-1090-E	PO-3	14B-63	INS B1	11B-1201
S-10	14E-88	BB-9	ET-146-E	PO-20	ET-152-E	BC-20	ET-1094-E
S-4	ET-305-E	CABLE CLAMPS	ET-556-E	POR-4	14B-63	BB-3	ET-148-E
JB	ET-148-E	CABLE CLAMPS	ET-556-E	POL-4	14B-63	BG1	ET-145-E
BG-2	ET-145-E	TS-38	ET-256-E	1130-A	ET-1130-E	1131PO	ET-1131-E
5-BB34	ET-148-E	BC-37	ET-1093-E	1131-CD	ET-1131-E	1130B	ET-1130-E
UB-27	ET-146-E	HC-29A	ET-1029-E	1131-AB	ET-1131-E	1130C	ET-1130-E

GENERAL NOTES:
 30 SERIES - USED FOR TWO-WIRE MAIN TRACK, POWER & YARD SYSTEMS.
 60 SERIES - USED FOR THREE-WIRE MAIN TRACK.
 50 SERIES - BRIDE PULL-OFF BETWEEN THREE-WIRE MAIN TRACK & TWO-WIRE MAIN TRACK, POWER OR YARD SYSTEM.
 4C SERIES - USED FOR ALL TYPES OF NON-BENDING WIRES CONSIDERED OUT OF RANGE OF PANTOGRAPH.
 THE LOWER CASE LETTER AFTER THE SERIES NUMBER DENOTES THE USE OF THE FOLLOWING:
 "B" - ONE BRONZE PULL-OFF BAR.
 "C" - TWO BRONZE PULL-OFF BARS.
 "S" - ONE STEEL PULL-OFF BAR.

ISSUE NO.	DATE	BY	CHECKED	REMARKS
5	5-5-1920	RD	PK	REVISED AS SHOWN
4	1-25-1920	RD	PK	VIEW OF WIRE SECTION
3	1-14-20	RD	PK	BAR DIMENSION ADDED
2	1-14-20	RD	PK	REVISION OF WIRE SECTION
1	5-26-17	RD	PK	ORIGINAL

NOTE:
 THIS DRWG. SUPERSEDES
 DRWGS ET-104-E ET-203-E
 19C-1076 20E-104
 PART OF DWGS ET-197-E ET-210-E
 ET-442-E ET-926-E ET-1003-E
 14C-130

THE PENNSYLVANIA RAILROAD
 ELECTRIFIED TERRITORY
HORIZONTAL STRAND
PULL-OFF ASSEMBLIES

PHILADELPHIA
 CHIEF OF MOTIVE POWER
 J. Stair, Jr.
 ELECTRICAL ENGINEER