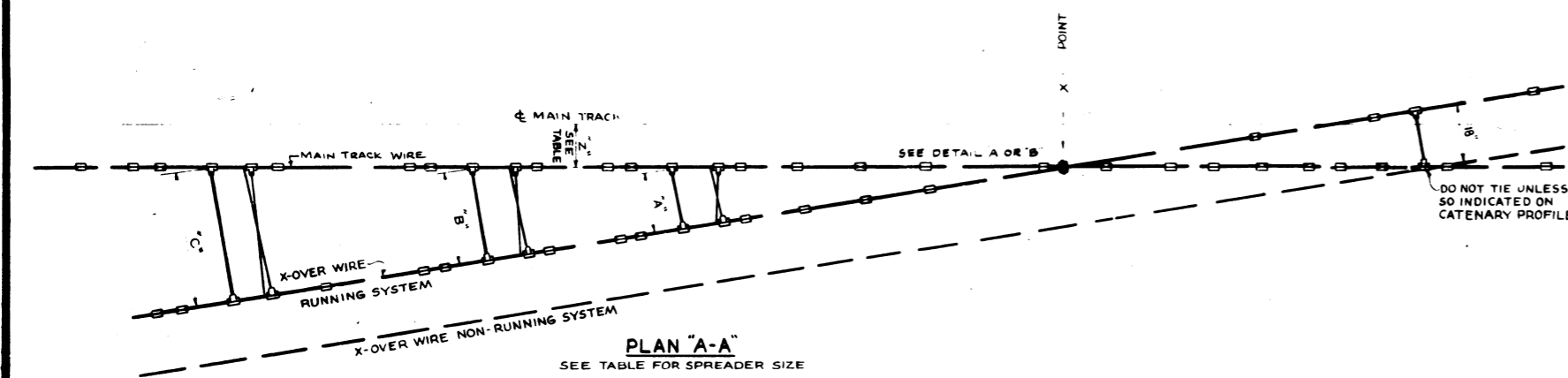
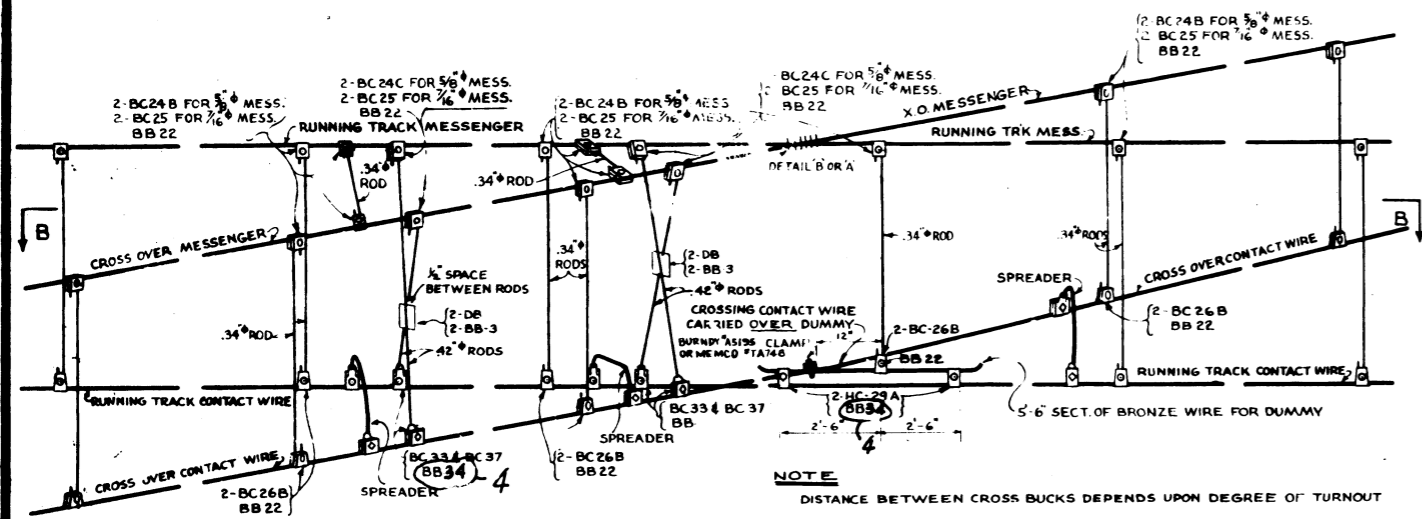


NOTE:
WHEN EITHER MAIN TRACK OR X-OVER
IS THREE WIRE SYSTEM, AUXILIARY
WIRE REPLACES DUMMY AND CLIPS
BETWEEN AUXILIARY AND CONTACT WIRE
ARE SPACED AS SHOWN FOR STANDARD 1
ON DWG. ET-1100-C

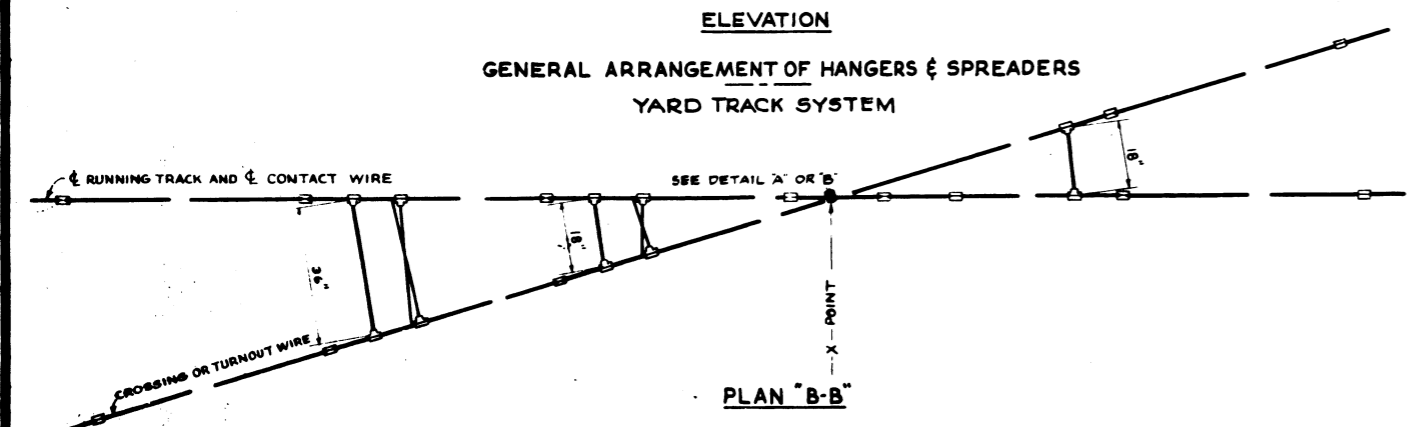
ELEVATION
GENERAL ARRANGEMENT OF HANGERS & SPREADERS
MAIN TRACK SYSTEM



PLAN "A-A"
SEE TABLE FOR SPREADER SIZE



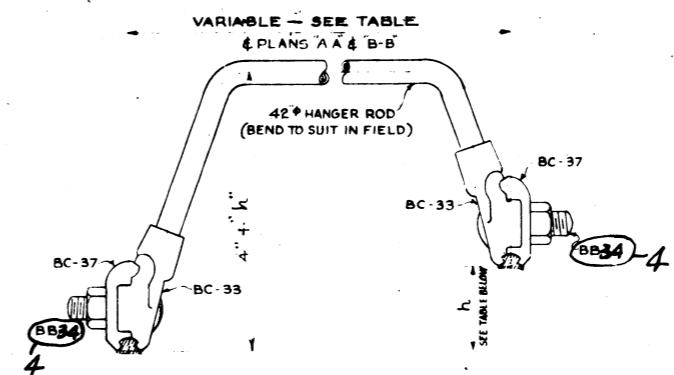
ELEVATION
GENERAL ARRANGEMENT OF HANGERS & SPREADERS
YARD TRACK SYSTEM



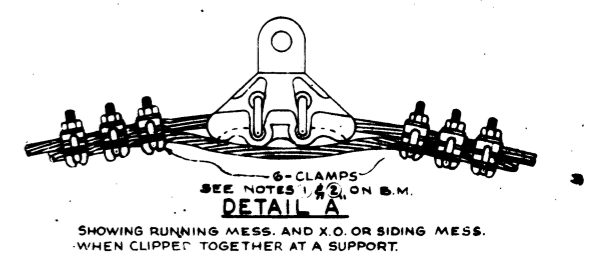
PLAN "B-B"

| ALIGN. | Z' | TO X-OVER | | | TO X-OVER | | |
|--------|-----------|-----------|-----|-----|-----------|---|-----|
| | | A | B | C | A | B | C |
| TAN. | 0' TO 4' | 24" | 30" | 36" | 18" | - | 36" |
| TAN. | 4' TO 8' | 18" | 24" | 30" | 18" | - | 30" |
| TAN. | 8' TO 12' | 12" | 18" | 24" | 12" | - | 24" |
| CURVE | | 24" | 30" | 36" | 24" | - | 36" |

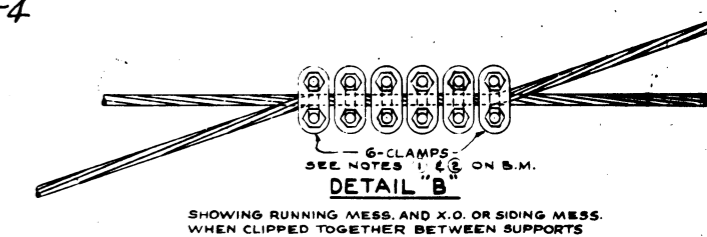
FOR YARD SEE PLAN "B-B"



SPREADER

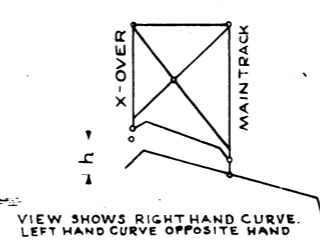


6-CLAMPS
SEE NOTES 1, 2, 3 ON S.M.
DETAIL A
SHOWING RUNNING MESS. AND X.O. SIDING MESS.
WHEN CLIPPED TOGETHER AT A SUPPORT.



6-CLAMPS
SEE NOTES 1, 2, 3 ON S.M.
DETAIL B
SHOWING RUNNING MESS. AND X.O. SIDING MESS.
WHEN CLIPPED TOGETHER BETWEEN SUPPORTS

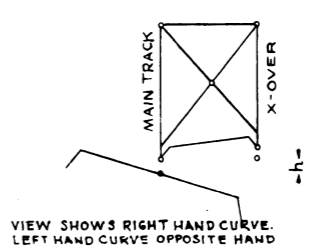
CURVE, X-OVER WIRE FROM OUTSIDE



VIEW SHOWS RIGHT HAND CURVE.
LEFT HAND CURVE OPPOSITE HAND

| YARD TRACK | | | | | |
|-------------|----------|----------|----------|---------|------|
| SUPER ELEV. | 36" BUCK | 30" BUCK | 14" BUCK | X-POINT | |
| 2 1/2" | 1" | 1" | 1" | 1" | 1" |
| 2" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| 1 1/2" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| 1" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |

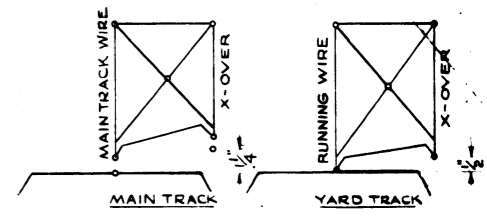
CURVE, X-OVER WIRE FROM INSIDE



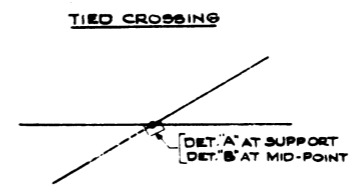
VIEW SHOWS RIGHT HAND CURVE.
LEFT HAND CURVE OPPOSITE HAND

| YARD TRACK | | | | | |
|-------------|----------|----------|----------|---------|------|
| SUPER ELEV. | 36" BUCK | 30" BUCK | 14" BUCK | X-POINT | |
| 2 1/2" | 1" | 1" | 1" | 1" | 1" |
| 2" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| 1 1/2" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| 1" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |

TANGENT

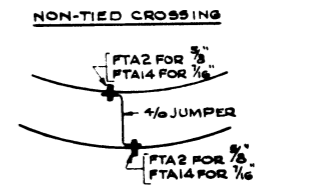


TYPICAL SECTIONS AT DEFLECTOR X-BUCK



PLAN

| DESCR. | TX-1 | TX-2 | TX-3 | DWG. NO. |
|--------|------|------|------|----------------|
| 1 | 6 | 6 | 6 | AB18 TA-148 |
| 2 | 6 | 6 | 6 | ET-550-E |
| 3 | 6 | 6 | 6 | ET-550-E |



PROFILE

| DESCR. | NTX-1 | NTX-2 | NTX-3 | DWG. NO. |
|--------|-------|-------|-------|----------|
| 1 | 2 | 1 | 1 | ET-912-E |
| 2 | 1 | 2 | 1 | ET-998-E |
| 3 | 1 | 1 | 1 | |

MESSANGER CROSSINGS-NOT AT DEFLECTORS

- USE WHEN EITHER MESSENGER IS COMPOSITE.
- USE WHEN BOTH MESSENGERS ARE BRONZE.

| MARK | DWG. NO. | MAIN TRACK - ALL MESS. 3/8" | | YARD TRACK | | |
|--------|-----------|-----------------------------|-------|-------------|--------------|--------------|
| | | X-OVER 20' & 15' | 10' | 3/8" X 3/8" | 3/8" X 3/16" | 3/8" X 3/16" |
| | | QUAN. | QUAN. | QUAN. | QUAN. | QUAN. |
| BC-24B | ET-1087-E | 38 | 22 | 18 | - | - |
| BC-26B | ET-1078-E | 26 | 14 | 14 | 14 | 14 |
| HC-29A | ET-1029-E | 44 | 24 | 4 | 4 | 4 |
| BC-33 | ET-1081-E | 14 | 10 | 10 | 10 | 10 |
| BB-3 | ET-148-E | 14 | 10 | 10 | 10 | 10 |
| BB-34 | ET-148-E | 6 | 4 | 4 | 4 | 4 |
| BB-34 | ET-148-E | 38 | 22 | 12 | 12 | 12 |
| BB-34 | ET-148-E | 38 | 22 | 22 | 22 | 22 |
| DB | ME-100 | 6 | 4 | 4 | 4 | 4 |
| WIRE | 2#12 | 6 | 6 | 6 | 6 | 6 |
| W.C. | ET-556-E | - | - | - | 6 | - |
| BC-25 | ET-1088-E | - | - | - | 14 | 30 |
| BC-24C | ET-1086-E | 12 | 8 | 8 | 4 | - |
| W.C. | ET-556-E | 6 | 6 | 6 | 9 | - |

* FOR HANGERS, CROSS BUCKS & SPREADERS AS SHOWN FOR EXACT NUMBER OF HANGERS SEE CATENARY PROFILE
 ① USE WHEN EITHER MESSENGER IS COMPOSITE.
 ② USE WHEN BOTH MESSENGERS ARE BRONZE.

THE PENNSYLVANIA RAILROAD
ELECTRIFIED TERRITORY
DEFLECTOR DETAILS

PHILADELPHIA
CHIEF OF MOTIVE POWER

ET-1109-C-4