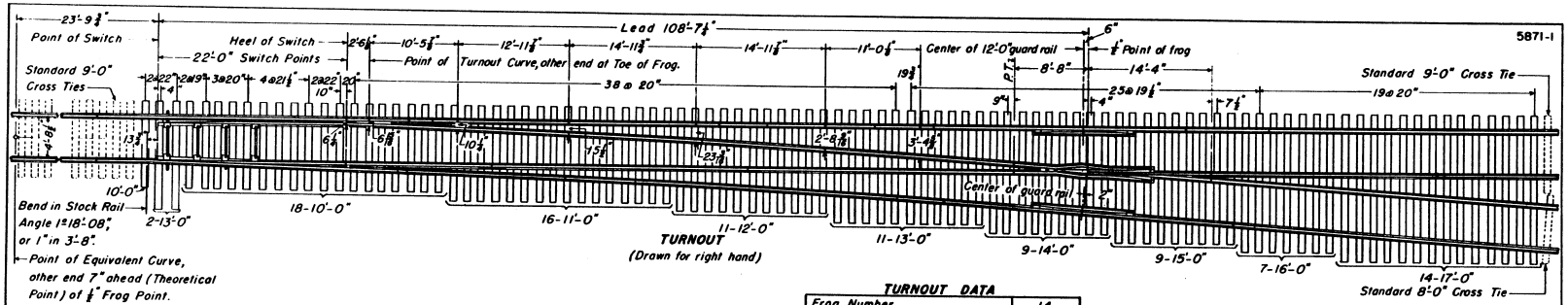
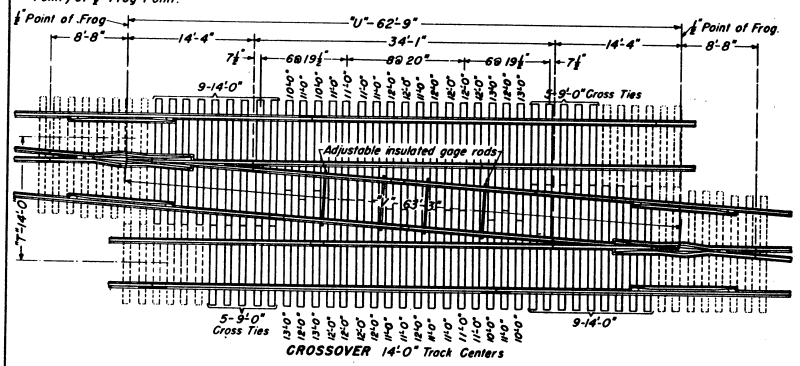
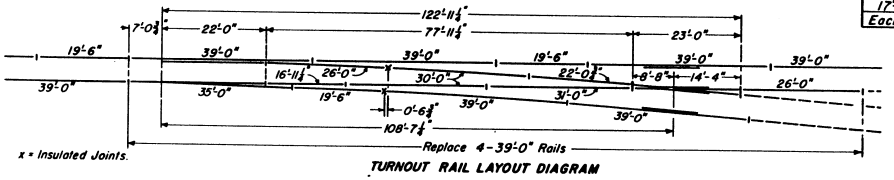
5871-1




**TURNOUT**
(Drawn for right hand)




**CROSSOVER 14'-0" Track Centers**




**TURNOUT RAIL LAYOUT DIAGRAM**

Note: For cropped rail (36 ft. lengths) see C.E. No. 50136-848

**TURNOUT DATA**

| | |
|---|---|
| Frog Number | 14 |
| " Angle | 4° 05' 27" |
| " Length on Main Track | 23'-0" |
| " " " Turnout Track | 23'-0" |
| Length of Switch Points | 22'-0" |
| Heel Spread of Switch | 6⅛" |
| Switch Angle | 1° 18' 08" |
| Lead | 108'-7½" |
| Radius of Turnout Curve | 1549.89' |
| Degree of " | 3° 41' 31" |
| Central Angle of Turnout Curve | 2° 47' 19" |
| Radius of Equivalent Curve | 1845.65' |
| Degree of " " | 3° 06' 17" |
| Length " " | 131.76' |
| Straight Closure | 77'-11½" |
| Curved " | 78'-0⅜" |

**CROSSOVER DATA**

Main Tracks - Tangent and Parallel
Crossover - Tangent Between Frogs

| Track Centers "T" | Distance Between ½" Frog Points | |
|---|---|---|
| | On Main Track "U" | On Crossover "V" |
| 14'-0" | 62'-9" | 63'-3" |
| 17'-0" | 104'-8⅛" | 105'-3⅛" |
| Each 1" | 1.165' | 1.168' |

**BILL OF SWITCH TIES (Based on 9 ft cross tie territory)**

| TURNOUT Pcs. | Size | Length | Ft. B.M. | Track Centers | CROSSOVERS Number and Lengths | Ft. B.M. |
|---|---|---|---|---|---|---|
| 1 | 7"x9" | 10'-0" | 52.50 | | | |
| 2 | " | 13'-0" | 136.50 | | Double bill of switch ties for turnout down to and including 14'-0" length, plus: | |
| 18 | " | 10'-0" | 945.00 | | 4 - 10'-0" | |
| 16 | | 11'-0" | 924.00 | | 13 - 11'-0" | |
| 11 | | 12'-0" | 693.00 | 14'-0" | 13 - 12'-0" | |
| 11 | | 13'-0" | 750.75 | | 4 - 13'-0" | |
| 9 | | 14'-0" | 661.50 | | 18 - 14'-0" | 11,703 |
| | | | | | Plus 10 standard 9'-0" cross ties to complete crossover. | |
| 9 | | 15'-0" | 708.75 | | | |
| 7 | | 16'-0" | 588.00 | | Double entire bill of switch ties for turnout down to and including 17'-0" length | 13,420 |
| 14 | | 17'-0" | 1249.50 | 17'-0" | | |
| | | | | | No standard 9'-0" cross ties between switch tie sets are required. | |
| 98 | " | — | 6710 | | | |

**NOTES**

1 - See C.E. 5649 for locations where this turnout is used and specific C.E. standard plans of switches, frogs and guard rails to be used with this turnout.
2 - Tie spacing shown is for interlocked switch. For change in tie spacing for hand operated switch, see C.E. 5887.
3 - For plates under switches, frogs and guard rails see individual standard plans. Standard tie plates to be used on all other ties.
4 - Any crossover details not shown are same as those for turnout.
5 - Data shown for switch ties is for 9 ft cross tie territory.
6 - For rail layout diagrams and location of insulated joints and compromise joints for crossovers on 14'-0" and 17'-0" track centers, see Sheet 2.

| REVISIONS OR ADDITIONS | | |
|---|---|---|
| Date | Changed Items | Approved |
| 12-1973 | Changed notes, tie lengths and bill of switch ties. | WBA |
| 1-1985 | Switch tie lengths and bill. Added note. | MRW |

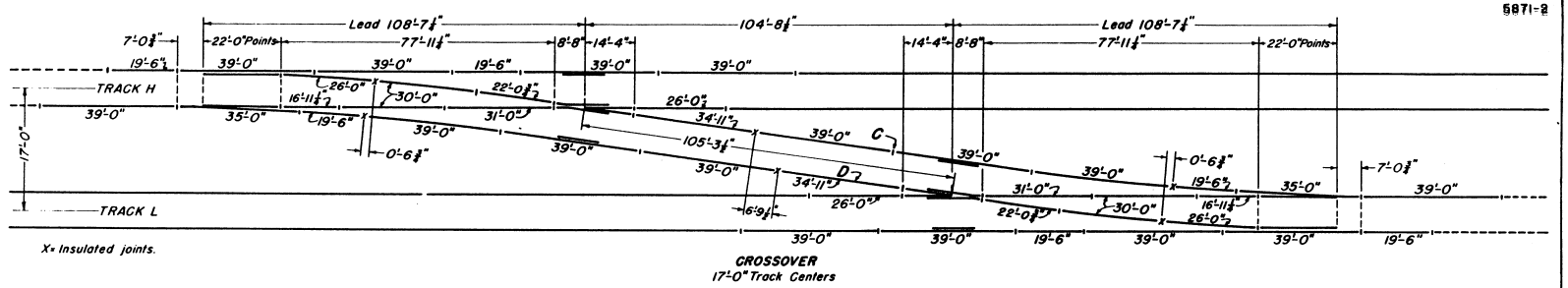
THE A. T. & S. F. RY. COMPANY
STANDARD
# No. 14 TURNOUT AND CROSSOVER
## 132 LB. "R.E." RAIL — RIGID FROG

C.E. No. 5871, SHEET 1 OF 2 — CHICAGO, JULY 1951

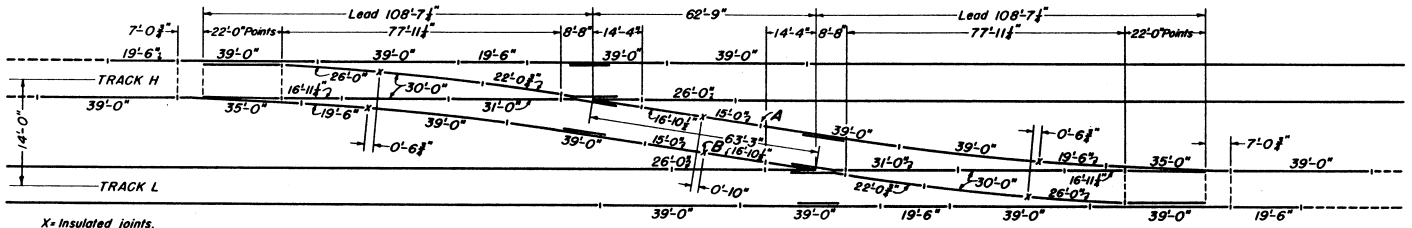
[redacted]
VICE PRESIDENT

APPROVED
[redacted]
CHIEF ENG'R. SYSTEM

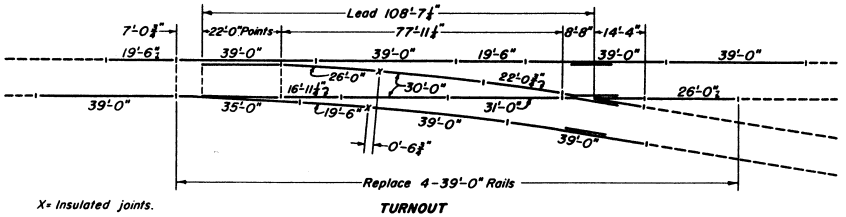
T-30




CROSSOVER
17'-0" Track Centers




CROSSOVER
14'-0" Track Centers




TURNOUT

## NOTES

1.- Since the permissible variation in standard lengths of rails, frogs and switch points is greater than the normal expansion gaps at rail joints and thickness of fibre end post in insulated joints, no allowance has been made for expansion gaps and fibre end posts in computing lengths of rails shown.

2.- Location of insulated joints meets the requirements of plan C.E. 5492 where two track circuits are to be installed at existing hand throw crossovers.

3.- Rail layout shown for crossovers is to be used in all cases, except where compromise joints are required between the frogs in the crossover track. When compromise joints are required, the insulated joints in the crossover track shall always be of the heavier rail section and the rail layout shall be changed to locate compromise joints as described below:

The descriptions of the changes in rail layout when compromise joints are required in the crossover track are based on assumption that track H is laid with heavier rail than track L.

Crossover on 14'-0" track centers; at location A; at location B by placing the insulated joint at other end of the 15'-0" rail, placing the compromise joint where insulated joint is shown.

Crossover on 17'-0" track centers; at location C; at location D by replacing the 34'-11" rail with 18'-0" of the heavier rail and 16'-11" of the lighter rail, retaining insulated joint in location shown.

4.- Compromise joints are not required to connect 132 lb. with 131 lb. rail, as 132 lb. standard joint bars are used.

5.- For cropped rail (36 Ft. lengths) see C. E. No. 50136-848.

| REVISIONS OR ADDITIONS | | |
|---|---|---|
| Date | Changed Items | Approved |
| 12-1973 | Changed length of crossover rails and notes. | [redacted] |
| 1-1985 | Added Note 5. | |

THE A. T. & S. F. RY. COMPANY

STANDARD

# No. 14 TURNOUT AND CROSSOVER

## RAIL LAYOUT DIAGRAM WITH LOCATION OF INSULATED AND COMPROMISE JOINTS

## 132 LB. "R.E." RAIL — RIGID FROG

C.E. No. 5871, SHEET 2 OF 2

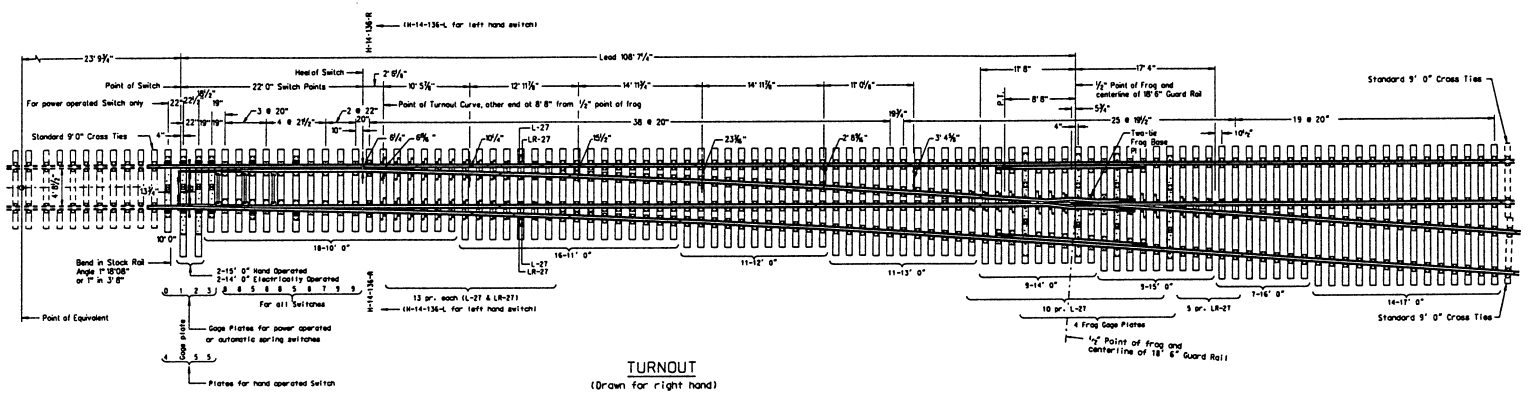
CHICAGO, JULY 1951

[redacted]

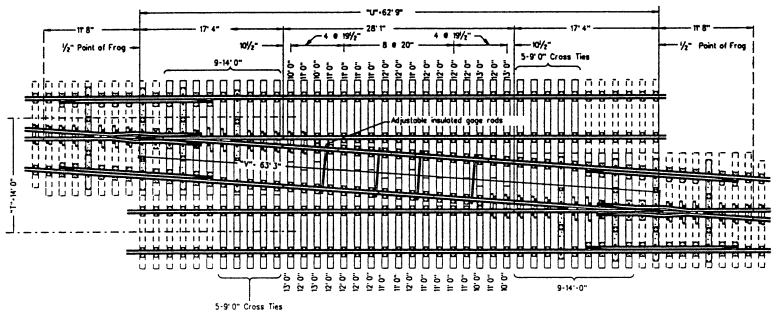
APPROVED: [redacted]

CHIEF ENG'R. SYSTEM

T-31




TURNOUT
(Drawn for right hand)




CROSSOVER
(14' 0" Track Centers)

## NOTE:

1. This plan is based on 136 lb. R.E. Head Hardened Rail.
2. Location of insulated joints is determined by C.E. No. 5923, Sheet 2. It will be satisfactory to relocate the insulated joint in the field up to 12"± so as to provide a suitable suspended joint, provided the stagger of insulated joints does not exceed 4' 6". Suspended insulated joints must be located a minimum of 4" from edge of nearest tie plate.
3. All insulated joints are to be adhesive bonded insulated joints unless otherwise stated.
4. All materials required for power switch operation will be furnished by the Signal Department.
5. Materials, workmanship and any construction details not shown, shall be per current A.R.E.A. "Trackwork Plans and Specifications" unless otherwise specified on this plan.
6. As required, all identification symbols and plate stamping to be properly located and plainly marked. Stamping on all switch and guard rail plates to face outward, towards the field sides of the turnout. Special plating at frog, stamping to face towards centerline of turnout side.
7. Gage Plates furnished will be insulated. Switch Rods furnished will be insulated unless otherwise specified.
8. The Switch Points shall be fabricated per current Drawing C.E. No. 50136-2052. Manufacturer shall submit two copies of Switch Point Shop Drawings to Santa Fe for approval prior to fabrication of Switch Point.
9. The Rigid Frog shall be fabricated per current Santa Fe Drawing C.E. No. 6050. Manufacturer shall submit two copies of Rigid Frog Shop Drawings to Santa Fe for approval prior to fabrication of frog.
10. The following material is included for the item(s) shown. If any part is to be omitted, requisitions and orders shall state specifically what is wanted.
    "Switch Point": One pair switch points with reinforcing bars, transit clips, stops and floating heel separator block fastened to point. State "Right Hand" or "Left Hand".
11. This plan shows CTM one bolt Adjustable Braces. With approval of the Chief Engineer, other types of adjustable rail braces can be used.
12. This plan calls for ¾" x 6" Twin Lead (galvanized) screw spikes at all locations unless otherwise noted. A 7/16" diameter hole must be bored in the tie for screw spikes. Screw Spikes must be screwed in and NOT driven.
13. Manufacturer shall bevel rail ends per current A.R.E.A. Plan No. 1005.
14. Tie spacing shown should be maintained as closely as possible since the proper fit of the tie plate is determined by the correct tie location.
15. The 22' 0" Switch Point, made from 40' 0" rail per C.E. No. 6053, Sht 1, is to be furnished with a "MF" Front Rod per C.E. No. 5560, "SMJ" No. 1 Switch Rods per C.E. No. 5562, Shts. No.1 and 2 and Switch Rods No. 2, 3 and 4, and Stops per C.E. No. 6053, Shts 1 and 3.
16. For Turnout and Crossover Data for a No. 14 Turnout and Crossover, 136 lb. R.E. Rail, see Table this sheet.
17. The Frog Gage Plates FC-1P thru FC-4P to be furnished by Railway Co. per C.E. No. 6058. The Pandrol shoulders are furnished loose with gage plates and are to be welded to gage plates after final surfacing and gage check has been made.
18. For plates under switches, frogs and guard rails see Reference Drawing list on this sheet. Standard tie plates to be used on all other ties beyond the limit of plates at switch and frog.
19. Any crossover details not shown are same as those for turnout.
20. This plan is drawn for Standard 9' 0" cross ties.
21. For rail layout and location of insulated and compromise joints for crossovers on 14' 0" track centers, see Sheet 2.
22. This drawing for welded rail layout. Welded joints are shown ( ═══ ) as a heavy line and insulated joints are shown ( ═‖═ ).
23. Tie spacing shown is for interlocked switch. For change in tie spacing for switch, see C.E. No. 6053.
24. Box anchor 5 rail lengths ahead of and 5 rail lengths leaving T.O.

| TURNOUT DATA | |
|---|---|
| Frog Number | 14 |
| Frog Angle | 4° 05' 27" |
| Frog Length on Main Track | 29' 0" |
| Frog Length on Turnout Track | 29' 0" |
| Length of Switch Points | 22' 0" |
| Heel Spread of Switch | 6¼" |
| Switch Angle | 1° 18' 08" |
| Lead | 108' 7¼" |
| Radius of Turnout Curve ℄ | 1549.89' |
| Degree of Turnout Curve | 3° 41' 51" |
| Central Angle of Turnout Curve | 2° 47' 19" |
| Radius of Equivalent Curve | 1845.65' |
| Degree of Equivalent Curve | 3° 06' 17" |
| Length of Equivalent Curve | 131.76' |
| Straight Closure | 77' 11¼" |
| Curved Closure | 78' 07½" |

| CROSSOVER DATA | | |
|---|---|---|
| Main Tracks- Tangent and Parallel<br>Crossover- Tangent Between Frogs | | |
| Track Centers "T" | Distance Between 1/2" Frog Points | |
| | On Main Track "U" | On Crossover "V" |
| 14' 0" | 62' 9" | 63' 3" |
| 15' 0" | 76' 8¾" | 77' 3" |
| 16' 0" | 90' 8½" | 91' 3½" |
| 17' 0" | 104' 8½" | 105' 3½" |
| Each 1" | 1.165' | 1.168' |

DRAWING C.E. No. 5923, SH. 1 & 2 REVISED MAY, 1993 FOR WELDED RAIL LAYOUT. FOR JOINTED (BOLTED) RAIL LAYOUT SEE DRAWING C.E. No. 5923, SH. 2.

## MANUFACTURING REFERENCE DRAWINGS

136 lb. ~ No.14 ~ R.H., M.O., TURNOUT ———————— C.E. No. 5923 - SHT. 1
DETAILS ~ SWITCH PLATES ———————— C.E. No. 6052 - SHT. 3
DETAILS ~ SWITCH GAGE PLATES ———————— C.E. No. 50136-681
136 lb. ~ GUARD RAIL ———————— C.E. No. 5921
DETAILS ~ FROG GAGE PLATES W/ PANDROLS ———————— C.E. No. 6058
SWITCH ROD No's. 1 & 2 AND STOPS ———————— C.E. No. 6052 - SHTS. 1 & 3 ~ DATED OCT. 1991
TURNOUT AND CROSSOVER DATA ———————— C.E. No. 5923 - SHT. 3
136 lb. ~ No. 10 ~ RAILBOUND FROG W/TWO-TIE HEEL PLATE ———— C.E. No. 6049

| REVISIONS | |
|---|---|
| DESCRIPTION | DATE |
| General revision | 1-1995 |
| | |
| | |

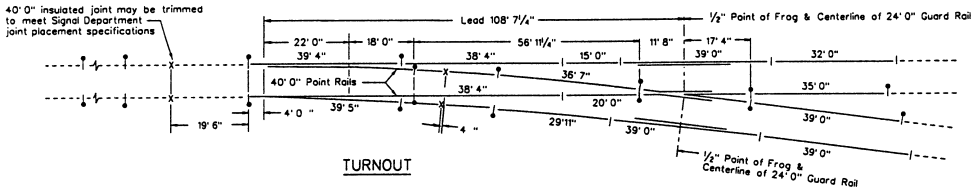
THE A.T. & S.F. RAILWAY CO.
STANDARD
No. 14 TURNOUT AND CROSSOVER

136 LB. "R.E." RAIL — WELDED R.B.M. FROG

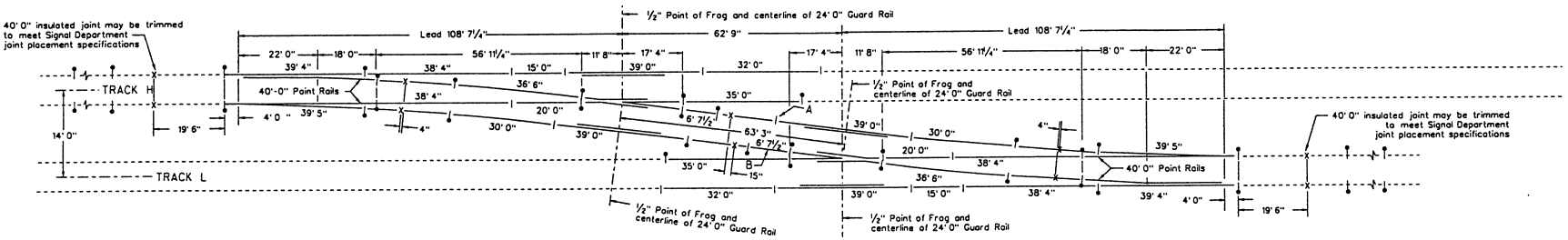
C.E. No. 5923, SHT. 1 OF 3 — KANSAS CITY, JANUARY, 1967

APPROVE[redacted]
VICE PRESIDENT & CHIEF ENGINEER

T-32

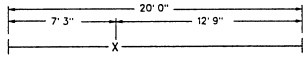



TURNOUT



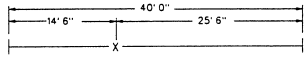

CROSSOVER

14' 0" TRACK CENTERS



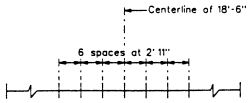

20' 0" LONG ADHESIVE BONDED INSULATED RAIL JOINT ASSEMBLY

Both ends drilled per Detail "A". When Bonded insulated joint is used in jointed rail the third end drilling bolt hole must be drilled in the field. Per C.E. No. 50136-1808.



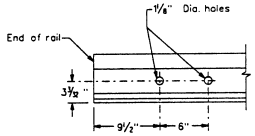

40' 0" LONG ADHESIVE BONDED INSULATED RAIL JOINT ASSEMBLY

Both ends drilled per Detail "A". When Bonded insulated joint is used in jointed rail the third end drilling bolt hole must be drilled in the field. Per C.E. No. 50136-1808.




GUARD RAIL ON TURNOUT RAIL

Position guard rail in its proper location and use as template to field drill seven 1 7/16" dia. holes 3 9/32" above base of rail. Permissable Variation: nothing under and up to 1/32" over in size and 1/32" in location of bolt holes.




DETAIL "A"

See Note 5 (b)

! Bolted Joint (Locations shown for Bolted rail installation.)
● Field Welded Joint (Locations shown for Welded rail installation.)
x Insulated Joint

## NOTES:

1. Since the permissible variation in standard lengths of rails, frogs and switch points is greater than the normal expansion gaps at rail joints and thickness of fiber end post in insulated joints, no allowance has been made for expansion gaps and fiber end posts in computing lengths of rails shown.
2. Rail layout shown for crossovers is to be used in all cases, except where compromise joints are required between the frogs in the crossover track. When compromise joints are required, the insulated joints in the crossover track shall always be of the heavier rail section and the rail layout shall be changed to locate compromise joints as described below:
   (a.) The descriptions of the changes in rail layout when compromise joints are required in the crossover track are based on assumption that Track H is laid with heavier rail than Track L.
   (b.) Crossover on 14' 0" track centers: At location A the compromise joint should be located at A. At location B the 6' 7½" rail shall be replaced with 3' 3" of the heavier rail and 3' 4½" of the lighter rail.
3. Location of insulated joints meets the requirements of Plan C.E. No. 5492 where two track circuits are to be installed at existing hand throw crossovers.
4. In addition to Note 1, no allowance has been made in rail lengths to provide gaps needed to make field welds. In the field it may be necessary to torch cut rail ends to provide correct gaps for field welds.
5. Furnish all rail shown in solid lines on this drawing. For bolted rail installation all rail furnished will have standard 3 hole end drilling. For welded rails:
   (a.) Rails longer than 39' 0" shall be continuous welded rail (CWR), to be furnished with both ends left blank for welding in the field.
   (b.) All other rails, 39' 0" or shorter as specified on the drawing, with both ends drilled per Detail "A".
6. All rail furnished for turnout and crossovers shall be "head hardened" except guard rails.
7. Locations of insulated joints are shown on turnout and crossover diagrams without tolerances, or if tolerances are permissible, with (+ or -). All insulated joints are to be properly suspended in crib area between two ties located a minimum of 4" from edge of nearest tie to edge of insulated joint.
   When insulated joints with tolerances fall short of minimum clearances from tie or tie plate the joints may be moved within the tolerance limits. Field welded joints designated ● should be in crib area between tow ties. When welding clearance is not available, the interfering tie should be moved for weld and returned to proper position after weld is completed. Stock rails are furnished longer than needed at point of switch and must be cut to fit in field.

| REVISIONS | |
|---|---|
| DESCRIPTION | DATE |
| General revision | 1-1995 |
| | |
| | |

THE A.T. & S.F. RAILWAY CO.

STANDARD

No. 14 TURNOUT AND CROSSOVER

LOCATION OF INSULATED AND COMPROMISE JOINTS

136 LB. "R.E." RAIL — WELDED R.B.M. FROG

C.E. No. 5923, SHT. 2 OF 3 — KANSAS CITY, JANUARY, 1967

APPROVED [redacted]

VICE PRESIDENT & CHIEF ENGINEER

T-33

**BILL OF MATERIAL (Turnout installed ahead of rail relay)**
No. 14, 136 lb. Right Hand Turnout
Rail Bound Manganese Insert Frog

| Qty. | Units | Description |
|---|---|---|
| 1 | Ea. | No. 14 Rail Bound Manganese Frog (H.I. Casting Insert) with two-tie base plate with Pandrol Shoulders. |
| 1 | Ea. | 39' 4" Straight Stock Rail, undercut gage side per Details this sheet. |
| 1 | Ea. | 39' 5" Bent Stock Rail, undercut gage side per Details this sheet. |
| 1 | Pr. | 22' 0" Split Switch Points made from 40' 0" rail (without manganese tip) complete with Floating Heel Separator Blocks bolted on. |
| 2 | Ea. | 18' 6" Guard Rail complete with end blocks, 4" flgy. fillers and bolts. |
| 1 | Ea. | Adjustable Front Rod with Clips, complete (for machine operated). |
| 1 | Ea. | Switch Rod S.M.J. No. 1 (for mach. operated) |
| 1 | Ea. | Switch Rod No.1 (for hand operated) |
| 1 | Set | Switch Rods (1 ea of Nos. 2, 3, and 4) |
| 14 | Ea. | Adjustable Rail Braces (with wedges, bolts and nuts) |
| 1 | Set | Sw.Gage Pts. (1 ea of Nos. 0, 1, 2 and 3) (for mach. oper.) |
| 4 | Ea. | Frog Gage Plates w/ Pandrol Shoulders |
| 2 | Ea. | No. S-4 Slide Plates (for hand operated) |
| 8 | Ea. | No. S-5 Slide Plates (for hand operated) |
| 4 | Ea. | No. S-5 Slide Plates (for hand operated) |
| 2 | Ea. | No. S-7 Slide Plates |
| 10 | Ea. | No. 8 Slide Plates |
| 4 | Ea. | No. 9 Slide Plates |
| 2 | Ea. | No. H-14-136-R Heel plates |
| 46 | Ea. | Hook Twin-Tie Plates L-27 ( 26 at Switch and 20 at Frog ). |
| 36 | Ea. | Hook Twin-Tie Plates LR-27 ( 26 at Switch and 10 at Frog ) |
| 18 | Ea. | Guard Rail Plate |
| 212 | Ea. | Tie Plates for rail |
| 2 | Ea. | Adhesive Bonded Insulated Rail Joints |
| 16 | Prs. | Short toe joint bars (FOR BOLTED RAIL TURNOUT ONLY) |
| 110 | Ea. | ¾" Twin Lead (galvanized) Screw Spikes. |
| 6 | Keg | 6" Track Spikes. |
| 1500 | Ea. | Tie Plugs |
| 1512 | Ea. | Rail Anchors, 136 lb. RE |
| | | |

NOTES: Box anchor 5 rail lengths ahead of and 5 rail lengths leaving T.O.s.

**RAILS NEEDED FOR BOLTED RAIL TURNOUT**

| No. | RAIL LENGTH AND LOCATION |
|---|---|
| 1 Each | 39' 0" Main line running rail |
| 1 Each | 38' 4" Main line running rail |
| 1 Each | 35' 0" Main line running rail |
| 1 Each | 32' 0" Main line running rail |
| 1 Each | 15' 0" Main line running rail |
| 1 Each | 38' 4" Main line closure rail |
| 1 Each | 20' 0" Main line closure rail |
| 3 Each | 39' 0" Turnout rail |
| 1 Each | 29' 11" Turnout rail |
| 1 Each | 36' 7" Turnout closure rail |

**WELDED RAIL (PREMIUM) NEEDED FOR WELDED RAIL TURNOUT**

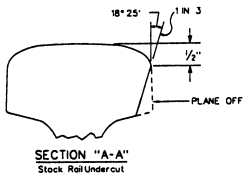
| | |
|---|---|
| 157 | Rail furnished for Main Line |
| 140 | Rail furnished for Turnout |
| 297 | Total Rail furnished for Switch |

NOTE: WHEN RAIL RELAY IS AHEAD OF TURNOUT A RAIL GAP OF 175' 0" WILL BE LEFT FOR INSTALLATION OF TURNOUT.

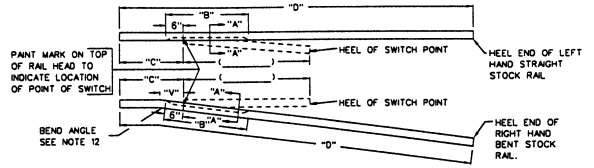
**BILL OF SWITCH TIES (Based on 9 ft. cross tie territory)**

| | TURNOUT Pcs. | Size | Length | Ft.B.M. | Track Centers | CROSSOVERS Number and Lengths | Ft.B.M. |
|---|---|---|---|---|---|---|---|
| | 1 | 7"x9" | 10' 0" | 52.50 | | | |
| ** | 2 | " | 14' 0" | 147.00 | | | |
| | 18 | " | 10' 0" | 945.00 | | Double bill of switch ties for turnout down to and including 14' 0" length, plus: 4-10' 0", 13-11' 0", 13-12' 0", 4-13' 0" and 18-14' 0" | |
| | 16 | " | 11' 0" | 924.00 | | | |
| | 11 | " | 12' 0" | 693.00 | | | |
| | 11 | " | 13' 0" | 750.75 | 14' 0" | | |
| | 9 | " | 14' 0" | 661.50 | | | |
| | 9 | " | 15' 0" | 708.75 | | | 11,703 |
| | 7 | " | 16' 0" | 588.00 | | | |
| | 14 | " | 17' 0" | 1249.50 | | Plus 10 standard 9' 0" cross ties to complete crossover. | |
| | 98 | " | —— | 6720.00 | | | |

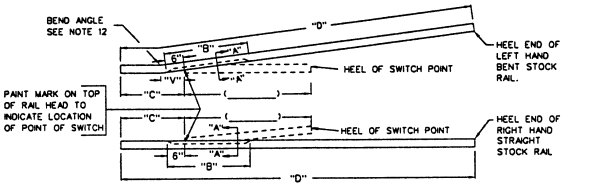
** 15' 0" Hand Operated
14' 0" Electrically Operated




SECTION "A-A"
Stock Rail Undercut




STOCK RAILS SHOWN ARE FOR " RIGHT HAND TURNOUT"




STOCK RAILS SHOWN ARE FOR " LEFT HAND TURNOUT"

## DETAIL--UNDERCUT STOCK RAILS

**NOTES FOR UNDERCUT STOCK RAILS:**

1. Information or dimensions called for in notes 2 thru 8 inclusive and noted on sketches thus, (____), to be furnished by field forces for correct ordering of replacement stock rails.
2. Length of switch point.
3. Overall length of stock rail.
4. Distance from end of stock rail to point of switch.
5. Weight of rail.
6. Cross out one - FOR JOINTED RAIL TURNOUT.
   - FOR "CWR" TURNOUT.
7. State Turnout Number ( 14 ).
8. State location where stock rail will be used.
9. Undercut stock rails to be made of head hardend rail with ends beveled per current A.R.E.A. Plan No. 1005.
10. Stock rail will be furnished with both ends left blank for welding in the field except as noted, see Note 11. When stock rail is to be furnished for bolted rail connection, rail end drilling to be as follows:
    For 136 lb. Rail: 9½" x 6" x 1⅛" dia. at 3⅞₂" A.B. See Detail "A", Sht. 2.
11. For stock rail undercut length "B", per Section "A-A", length "C" and length "D" for new Samson switch installations or replacement orders see table below.

**LENGTHS B, C, & D FOR 136 LB. RAIL**

| Sw. Pt. Length | T.O. No. | STOCK RAIL | B | FOR FIRST (NEW) INSTALL. C | D | END DRILL, SEE NO. 10 | FOR REPLACE ORDERS ONLY C | D | END DRILL, SEE NO. 10 |
|---|---|---|---|---|---|---|---|---|---|
| 22' 0" | 14 | STR. | 12' 0" | 4' 0" | 39' 4" | NONE | 5' 8" | 42' 8" | NONE |
| 22' 0" | 14 | BENT | 12' 0" | 4' 0" | 39' 5" | NONE | 5' 8" | 42' 9" | NONE |

12. Bend angle in bent stock rail to be as follows:

| Sw. Length | BEND ANGLE | V (Vertex Dist.) |
|---|---|---|
| 22' 0" | 1° 18' 8" or 1" in 3' 8" | 13¾" |

NOTES:

1. The "Bill of Material" given on this sheet is for a turnout to be installed ahead of rail relay. A complete "Bill of Material" includes a list of rail for either bolted or welded rail turnout and list of Switch Ties.
2. The "Bill of Material" does not include any compromise joints. If compromise joints are required Requisitions should state the combinations needed.
3. If any material listed is not wanted the Requisitions must state specifically what is wanted.
4. Requisitions for turnout material must list the following information: Weight of Rail, Turnout No. and whether Turnout is for a bolted rail or welded rail.

| REVISIONS DESCRIPTION | DATE |
|---|---|
| General revision | 1-1995 |
| | |
| | |

THE A.T. & S.F. RAILWAY CO.
STANDARD
No. 14 TURNOUT AND CROSSOVER
PACKAGE - BILL OF MATERIAL
136 LB. "R.E." RAIL WELDED R.B.M. FROG

C.E. No. 592 KANSAS CITY, MAY, 1993
APPROVED: [redacted]
VICE PRESIDENT & CHIEF ENGINEER