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|---|---|--|--------------------------------|--------------|
| CWR JOINT BAR FRACTURE REPORT | | TYPE OF INSPECTION | | |
| | | <input type="checkbox"/> PERIODIC JOINT INSPECTION (213.119[g][5][i]) <input type="checkbox"/> TRACK INSPECTION (213.233) <input type="checkbox"/> TURNOUT INSPECTION (213.235) <input type="checkbox"/> OTHER (discovered during other than required inspection) | | |
| RAILROAD: | | SUBDIVISION: | | MILEPOST: |
| DATE FOUND: ____ / ____ / 20____ | | ANNUAL MGT: | TRACK #: | TRACK CLASS: |
| <input type="checkbox"/> TANGENT | <input type="checkbox"/> CURVE ____ degrees <input type="checkbox"/> IN SPIRAL | <input type="checkbox"/> LOW/INNER RAIL <input type="checkbox"/> HIGH/OUTER RAIL | RAIL SECTION(S): ____ / ____ | |
| ANNUAL JOINT INSPECTION FREQUENCY FOR THIS SEGMENT: | | | DATE OF LAST JOINT INSPECTION: | |
| <input type="checkbox"/> 1x <input type="checkbox"/> 2x <input type="checkbox"/> 3x <input type="checkbox"/> 4x <input type="checkbox"/> OTHER: _____ | | | ____ / ____ / 20____ | |

| | |
|---|---|
| BAR TYPE (check all that apply) | <input type="checkbox"/> STANDARD <input type="checkbox"/> INSULATED <input type="checkbox"/> COMPROMISE NUMBER OF HOLES: <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 |
|---|---|

| FIELD SIDE BAR | GAGE SIDE BAR |
|--|--|
| BROKEN THROUGH Check location of break: <input type="checkbox"/> CENTER <input type="checkbox"/> INNER BOLT HOLE <input type="checkbox"/> OTHER | BROKEN THROUGH Check location of break: <input type="checkbox"/> CENTER <input type="checkbox"/> INNER BOLT HOLE <input type="checkbox"/> OTHER |
| CRACKED Check location(s) and record length(s): <input type="checkbox"/> TOP CENTER _____ inches <input type="checkbox"/> BOTTOM CENTER _____ inches <input type="checkbox"/> INNER BOLT HOLE _____ inches <input type="checkbox"/> OTHER BOLT HOLE _____ inches <input type="checkbox"/> OTHER (describe) _____ inches | CRACKED Check location(s) and record length(s): <input type="checkbox"/> TOP CENTER _____ inches <input type="checkbox"/> BOTTOM CENTER _____ inches <input type="checkbox"/> INNER BOLT HOLE _____ inches <input type="checkbox"/> OTHER BOLT HOLE _____ inches <input type="checkbox"/> OTHER (describe) _____ inches |

| |
|--|
| GAP BETWEEN RAIL ENDS _____ INCHES |
| RAIL END BATTER OR RAMP _____ (Figures 1 and 2) |
| <input type="checkbox"/> NORTH or <input type="checkbox"/> EAST RAIL END _____ INCHES HIGH _____ INCHES LONG <input type="checkbox"/> SOUTH or <input type="checkbox"/> WEST RAIL END _____ INCHES HIGH _____ INCHES LONG |
| TREAD MISMATCH _____ INCHES (Figure 3) |
| JOINT VERTICAL MOVEMENT _____ INCHES |

| | |
|--|---------------------------------------|
| <u>IF JOINT IN CURVE or SPIRAL:</u> | |
| GAGE RAMP (Figure 4) | _____ INCHES OUT _____ INCHES LONG |
| GAGE MISMATCH (Figure 5) | _____ INCHES |
| JOINT LATERAL MOVEMENT | _____ INCHES |

OTHER COMMENTS:

FRACTURE REPORT INSTRUCTIONS & FIELD DESCRIPTORS (DRAFT)

TYPE OF INSPECTION – Indicate the type of inspection being performed when fracture was found. **At least one (1) box in group must be checked.**

RAILROAD – FRA railroad reporting code, (e.g. CSX or NS). **Four (4) character alpha.**

SUBDIVISION – Railroad's subdivision or district. If none enter "system". **Fourteen (14) character alphanumeric.¹**

MILEPOST – Railroad's designated milepost at the location of the fracture. **7.2 character alphanumeric, e.g., ABC1234.56.¹**

DATE FOUND – Date the fracture was found. **Eight (8) character numeric, MMDDYYYY.**

ANNUAL MGT – Million Gross Tons (from previous year) for the specific track with the fracture. **4.1 numeric, e.g., 123.4 (allowable range 0 to 999.9 inclusive).**

TRACK CLASS – FRA Class for track with the fracture. **One (1) character numeric, e.g., 3 (allowable range 2 - 6 inclusive).**

TANGENT/CURVE/SPIRAL/INNER/OUTER – Indicate whether fracture found on tangent, curve (include degree of curvature) or spiral and if inner or outer rail, if applicable.

If tangent, check TANGENT. Otherwise check CURVE or SPIRAL and INNER or OUTER. If curve checked, curvature entered as 2.1 numeric, e.g. 2.5.

RAIL SECTION – Indicate each rail section comprising the joint, (e.g. for a standard bar, enter 136/ or for a compromise bar, enter 132/115). **One (1) or two (2) three character numeric, e.g., 123 or 123 456.**

ANNUAL JOINT INSPECTION FREQUENCY – Number of times per year that walking joint bar inspection is performed. **Two (2) character numeric, e.g. 3 (allowable range 1 – 12 inclusive).**

DATE OF LAST JOINT BAR INSPECTION – Date the last walking joint bar inspection was performed. **Eight (8) character numeric, MMDDYYYY.**

BAR TYPE/HOLES – Indicate bar type: standard, insulated, or compromise bar and number of holes. **Two (2) boxes (one in each group) must be checked.**

BROKEN THROUGH – For each bar, field and gage, check appropriate box if broken completely through and indicate the location of the break (through center, through inner bolt hole or other location).

For each bar, field and gage, there is no requirement to check any box(es) – neither bar is broken through.

CRACKED – For each bar, field and gage, indicate the crack location(s) and corresponding length(s).

For each bar, field and gage, any number of boxes may be checked. If box is checked, crack length is 3.1 numeric, e.g., 2.5. If OTHER is checked, text description can be 64 (128?) character alpha-numeric.

GAP BETWEEN RAIL ENDS – Measure and record the distance between the rail ends. If joint is pulled apart or separated, estimate the gap prior to separation. **5.2 numeric, e.g. 10.25.**

RAIL END BATTER OR RAMP - Measure and record the *height and length of the batter or ramp for each rail end* and record even if found to be zero. See Figures 1 and 2 for method of measurement. **Check appropriate boxes (one each of NORTH or EAST and one each of SOUTH or WEST) and enter batter ramp as four (4) 4.2 numeric, e.g., 1.25.**

¹ This format has been pre-established in FRA's RISPC system for its safety inspectors.

TREAD MISMATCH – Measure and record the tread mismatch. See Figure 3 for method of measurement. **4.2 numeric, e.g., 1.25.**

JOINT VERTICAL MOVEMENT – Record the vertical movement of the rail joint (not track surface) according to 213.13. **4.2 numeric, e.g., 1.25.**

GAGE RAMP – In curves only, measure and record the gage ramp distance out and length. See Figure 4 for method of measurement. **Two (2) 4.2 numeric, e.g., 1.25.**

GAGE MISMATCH – In curves only, measure and record the gage mismatch. See Figure 5 for method of measurement. **4.2 numeric, e.g., 1.25.**

JOINT LATERAL MOVEMENT – In curves only, record the lateral movement of the rail joint (not gage) according to 213.13. **4.2 numeric, e.g., 1.25.**

OTHER COMMENTS: - Other comments, including any other factors or conditions that may have contributed to the fracture of the bar(s). **256 character alphanumeric.**

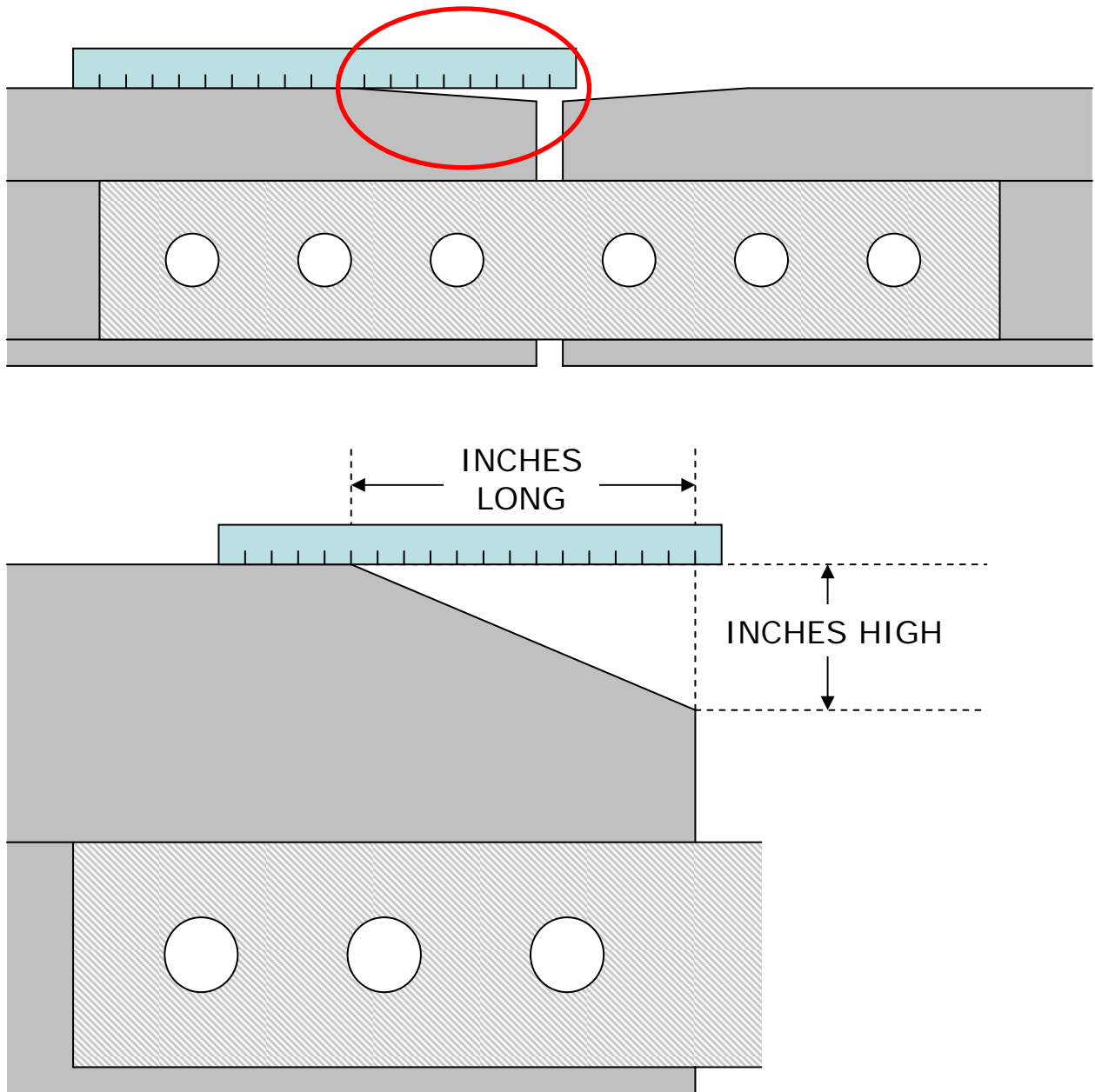
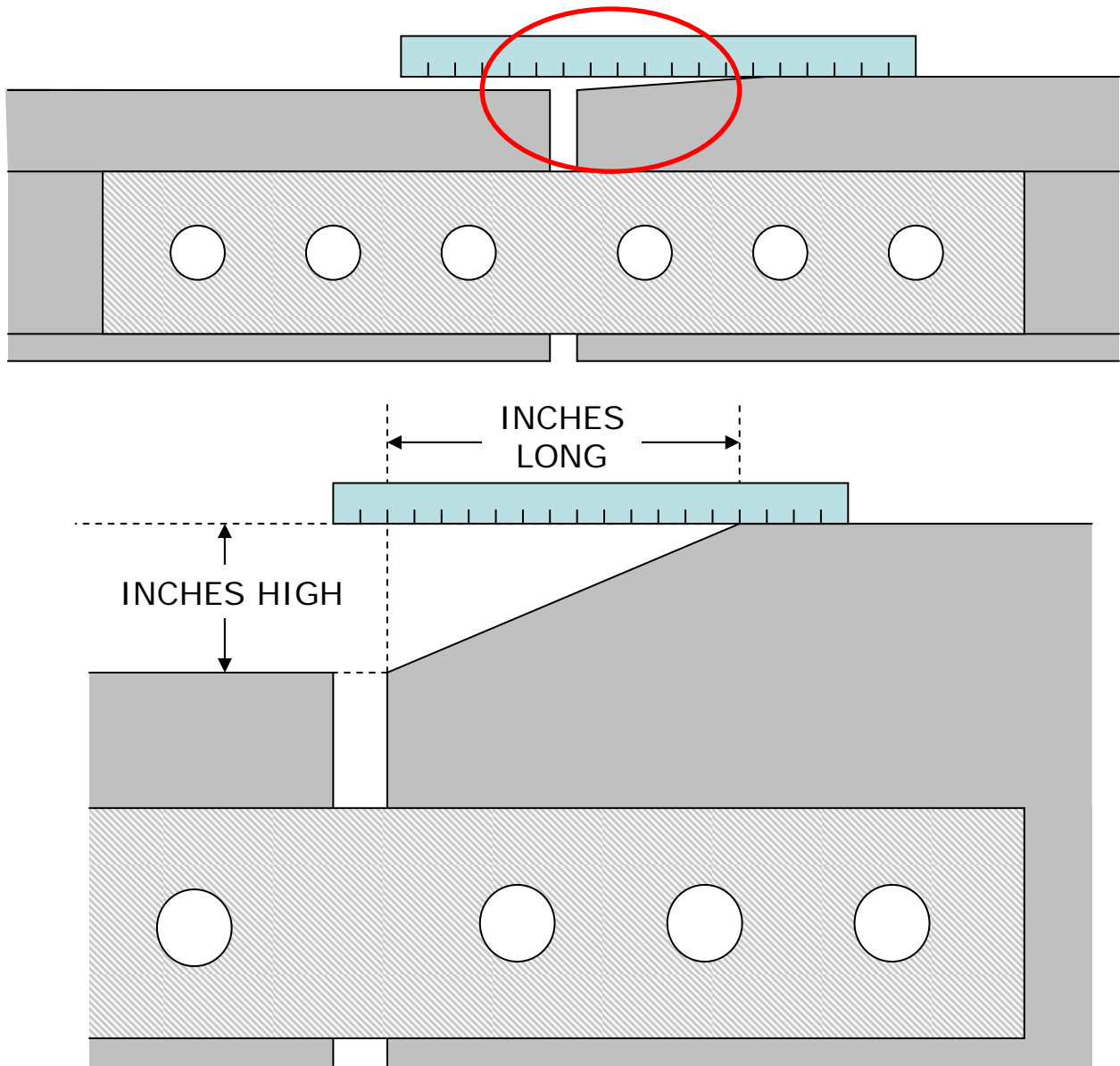
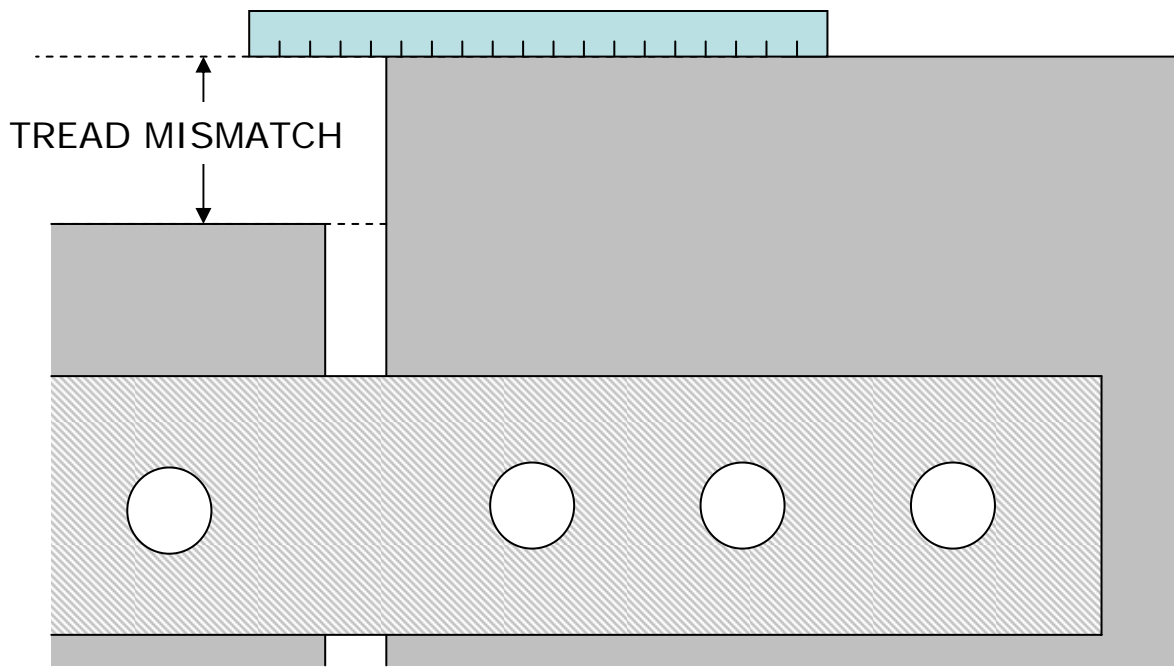
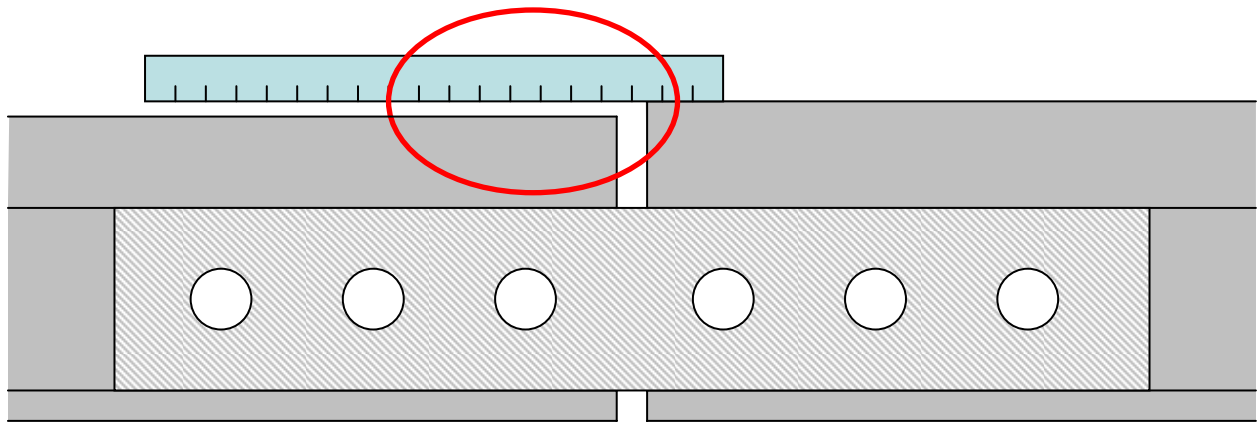


Figure 1. Method for measuring RAIL END BATTER.
Measurement to be made on each rail end.
(NOT TO SCALE)

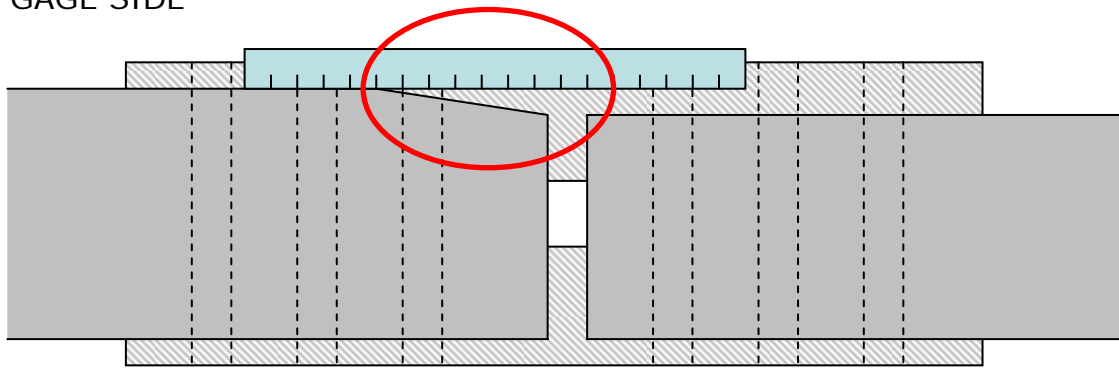


**Figure 2. Method for measuring RAIL END RAMP.
(NOT TO SCALE)**



**Figure 3. Method for measuring TREAD MISMATCH.
(NOT TO SCALE)**

GAGE SIDE



FIELD SIDE

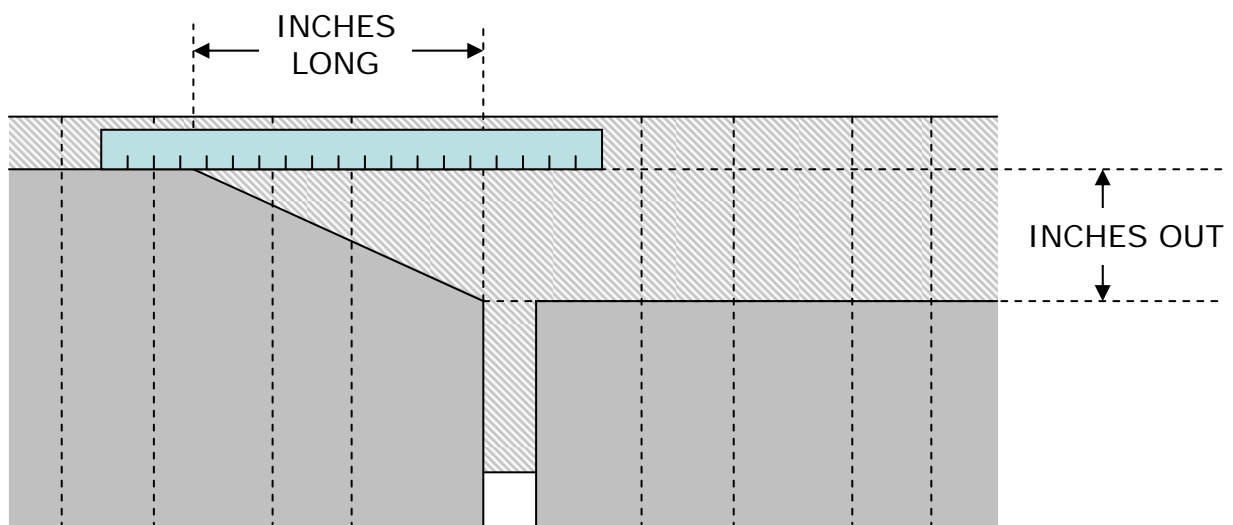
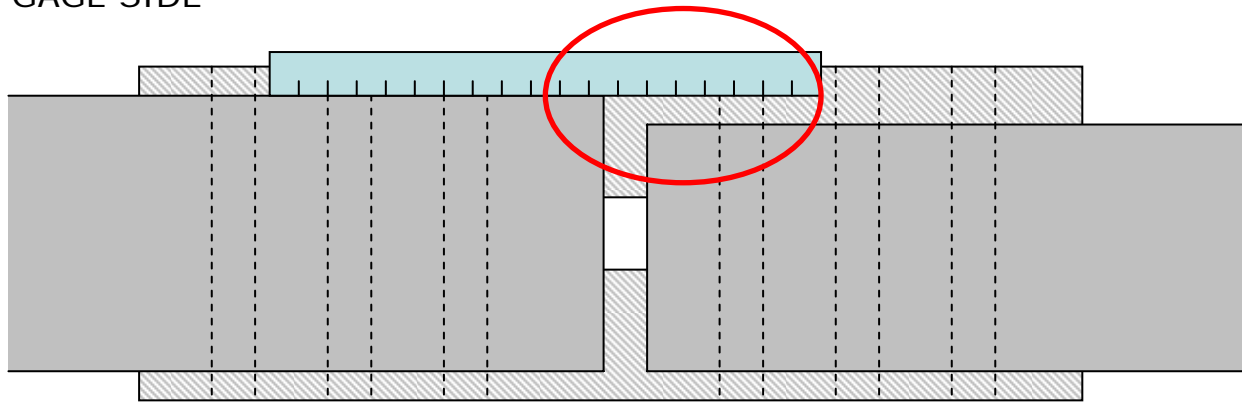


Figure 4. Method for measuring GAGE RAMP.
(NOT TO SCALE)

GAGE SIDE



FIELD SIDE

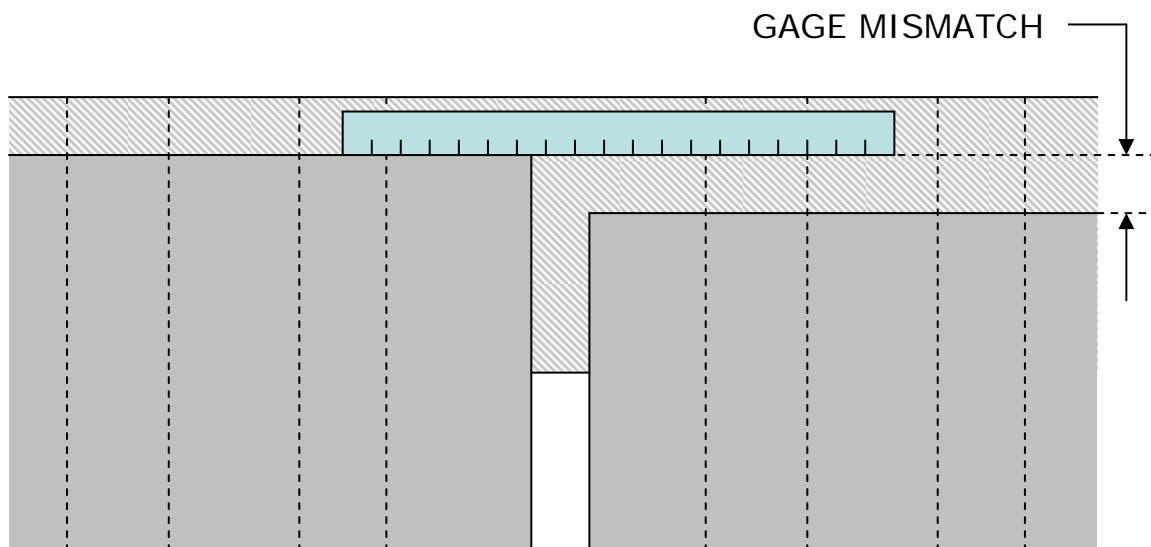


Figure 5. Method for measuring GAGE MISMATCH.
(NOT TO SCALE)