

STRESSING RECORD FORM

ETM0610F-01 v1.0 Date 24.02.2021

Previously ETW0105F-01 v2.2



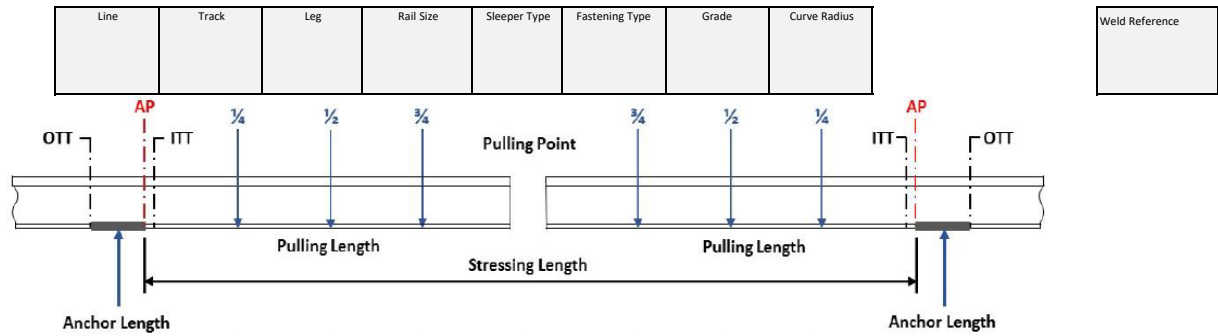
Rail Adjustment Performance in Accordance with ETW-01-05

Name:

Signed:

Date:

PLAN THE RAIL ADJUSTMENT



Underhead Roller Used	Yes/No								Weld Reference	
Rail Adjustment Location	Anchor Point 1 KMS	Pulling Point KMS				Anchor Point 2 KMS				
Rail Adjustment Lengths (m)	Anchor Length 1	A		B		Anchor Length 2		A+B=C		
Reference Marks Set-Out(m)	Anchor Point 1	1/4	1/2	3/4	Punch Mark Distance (mm)	3/4	1/2	1/4	Anchor Point 2	E
	0m				D				0m	

STEP 1 - CHECK AVERAGE TEMPERATURE. IF OK, PROCEED AND FLAME CUT RAIL AT THE PULLING POINT

Rail Temp (°C)	Anchor Point 1 Temp	Pulling Point Temp	Anchor Point 2 Temp	Average Temp
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STEP 2 - RELEASE FASTENINGS. CHECK MOVEMENT OUT OF STRESSING LENGTH AT ITT'S



STEP 3 - CHECK AVERAGE TEMPERATURE, AND CALCULATE RAIL EXTENSION

Rail Temp (°C)	Anchor Point 1 Temp	Pulling Point Temp	Anchor Point 2 Temp	Average Temp			
Calculate Temp Difference (°C)				H			
				38 - H = J			
Calculate Rail Extension (mm)	J x 0.0115 x A = K		L = J x 0.0115 x B		K + L = M		
Calculate the Expected RF Extensions (mm)	1/4	1/2	3/4	3/4	1/2	1/4	
Calculate Cut Gap (mm)							E + F + G + M = N

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STEP 4 & 5 – FIT TENSORS AND RELAX RAIL BY THE REQUIRED EXTENSION (OVERLAP IF REQUIRED). VISUALLY CHECK MOVEMENT AT ½ REFERENCE MARK DURING RELAXING

Calculate the Relaxation Extension (mm)

$$C \times 0.12 = P$$

Relaxation Extension

STEP 6 – AFTER RAIL IS RELAXED, CHECK FOR MOVEMENT AT OTT'S. IF THERE IS ANY MOVEMENT, STRENGTHEN THE ANCHOR LENGTH AND RESET THE OTT IN ACCORDANCE WITH THE WORK INSTRUCTION. RECORD PUNCH MARK DISTANCE

Record Punch Marks Distance(mm)

Punch Mark Distance

STEP 7 – MARK AND SCRIBE THE ¼, ½, AND ¾ REFERENCE MARKS

STEP 8 - RECHECK AVERAGE TEMPERATURE, AND RECALCULATE RAIL EXTENSION IF REQUIRED

Rail Temp (°C)

Anchor Point 1 Temp

Pulling Point Temp

Anchor Point 2 Temp

Q

Average Temp

(THE PICS ONLY NEEDS TO COMPLETE THIS SECTION IF THE AVERAGE TEMPERATURE Q IS DIFFERENT FROM H IN STEP 3)

Calculate Temp Difference (°C)

$$38 - Q = J$$

Temp Difference

Calculate Rail Extension (mm)

$$J \times 0.0115 \times A = K$$

Extension 1	Extension 2
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$$L = J \times 0.0115 \times B$$

$$K + L = M$$

Total Rail Extension

Calculate Expected RF Movement (mm)

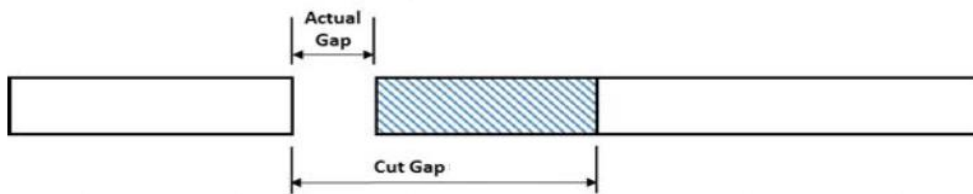
1/4	1/2	3/4		3/4	1/2	1/4
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Calculate Cut Gap (mm)

$$E + F + G + M = N$$

Cut Gap

STEP 9 – TRIM THE GAP BETWEEN RAILS AND TENSE RAIL TO WELD GAP



STEP 10 – CHECK FOR MOVEMENT AT ITT'S INTO THE STRESSING LENGTH. TRIM RAIL IF PRACTICAL AND TENSE RAIL BACK TO WELD GAP

Movement In at ITT (mm)

ITT 1

R ←

→ S

ITT 2

R + S

Trim Rail

STEP 11 – MEASURE AND RECORD THE ACTUAL MOVEMENT AT THE REFERENCE MARKS AND COMPARE TO THE EXPECTED MOVEMENT CALCULATED IN 3 OR 8. IF ACTUAL MOVEMENT IS NOT WITHIN 5mm OF ESTIMATED, THEN INSPECT STRESSING LENGTH FOR RAIL JAM OR OBSTRUCTION

Measure Actual RF Movement (mm)

1/4	1/2	3/4
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3/4	1/2	1/4
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COMPLETE STEPS 12 TO 16 IN ACCORDANCE WITH THE WORK INSTRUCTION (SUMMARY CHECKLIST FOR FIELD USE)

STEP 17 – RECORD FINAL PUNCH MARK DISTANCE, AND CALCULATE ACTUAL RAIL ADDED (-) OR REMOVED (+)

Measurement Final Punch Marks (mm)

T

Punch Mark Distance

D-T

Change in Rail

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STRESSING RECORD FORM (Optional Page)

STRESSING LENGTH PLAN

Highlight any of the following within the stressing length, or within close proximity;

- Turnouts / Catchpoints
- Bridges
- Level Crossings (tin top, concrete cast insitu etc)
- Extent of Stressing Length with a tunnel, cutting or embankment
- Use of overhead rollers

TRACK GEOMETRY;

NOTES