

873852/2021/Track-I



भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226 011
EPBX (0522) 2451200
Fax (0522) 2458500

Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow - 226 011
DID (0522) 2450115
DID (0522) 2465310



No: CT/Welding/R-260

Date: 01.03.2021

Executive Director / Track (M & MC)
Railway Board, Rail Bhawan,
New Delhi - 110 001.

Sub: Interim Guidelines for AT Welding for 60Kg/60E1, R-260 Grade Rails with 60Kg/60E1, 90UTS Rails

Ref: i) Railway Board Letter No. 2020/Track-I(P)/R-260 Grade Rails dated 29.01.2021
ii) RDSO letter of even numbered dated 18.12.2020

In reference to Railway Board's letter under reference (i) above, it is to mention that the ***"Interim Guidelines for AT Welding for 60Kg/60E1, R-260 Grade Rails with 60Kg/60E1, 90UTS Rails"*** sent to Railway Board vide this office letter under reference (ii) above for approval, are applicable to both profiles of UIC 60kg/m and 60E1. However, for better clarity word '60Kg' is replaced with '60Kg(UIC)' in proposed guidelines now.

A Proforma for recording of **'Welding parameters with USFD details'** for these welds by field officials is also incorporated in the Interim Guidelines with a request to Zonal Railways to submit the details to RDSO for review and further decision.

Accordingly, revised Interim Guidelines are enclosed as Annexure-A for consideration and approval of Railway Board.

DA: As above

(PRADIP KUMAR)
Executive Director / Track-II

**INTERIM GUIDELINE FOR AT WELDING OF 60Kg(UIC)/60E1, R-260 GRADE RAILS
WITH 60Kg(UIC)/60E1, 90UTS RAILS (REVISED)**

Following Interim Guideline is to be adopted for AT welding of 60Kg(UIC)/60E1, R-260 grade rails with 60Kg(UIC)/60E1, 90UTS rails in the field during the interim period till the process of development of regular AT welding technique and vendors for the same is completed:

- (1) AT welding portions for 60Kg(UIC)/60E1, R-260 grade rails shall be used for AT welding of 60Kg(UIC)/60E1, R-260 grade rails with 60Kg(UIC)/60E1, 90UTS rails with precautions as mentioned below:
 - a. AT weld shall be secured with joggled fish plates with clamps and wooden block on the same date of welding.
 - b. USFD testing of these joints (methodology and frequency) and follow up action shall be as per relevant Paras of '*Manual for Ultrasonic Testing of Rails and Welds, Revised – 2012*'.
 - c. Zonal Railways shall record the '*Welding parameters with USFD details*' in the Proforma enclosed with these guidelines for the welds executed in the field and submit the details to RDSO, initial and after passage of 10GMT traffic or 12 months period whichever is earlier, to review and decide further on continuing the provision of Joggle fish plates over these welds.
- (2) Acceptance Tests for joints welded at site shall be as per 'PART D: ACCEPTANCE TEST OF JOINTS WELDED AT SITE' of "*Indian Railway Standard Specification for Fusion Welding of Rails by Alumino Thermic Process, Serial No. IRST-19-2020*" and Para-6 of "*MANUAL FOR FUSION WELDING OF RAILS BY THE ALUMINO-THERMIC PROCESS, Revised 2012*".
- (3) RDSO's Interim Guidelines (for AT welding of R-260 grade rails by using 60Kg 90UTS portions of TPP, Lucknow) issued vide letter CT/Welding/R-260 dated 31.08.2020 shall be withdrawn w.e.f. 31.03.2021.

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PROFORMA FOR THERMIT WELD INSPECTION

S.No	Date of welding	Location details					Rail (Section & UTS)	
		Block Stn.	Cess /Situ	Km/TP	UP/DN	L / R	Rail1	Rail2
1	2	3					4	

Portion details				Welding details	
Agency code	Batch No.	Portion No.	Date of Manufacturing	Supervisor code	Welder code
5				6	

Weld No.	Block time		Dimensional tolerances on finished joint			
	From	To	On 1m		On 10cm	
			Lateral	Vertical	Top	Side
7	8		9			

USFD testing after welding		USFD testing on finished joint after passage of 10 GMT traffic over the joints or a period of 12 months whichever is earlier	
Date	Result (Pass/Failed)	Date	Result (Pass/Failed)
10		11	

In service failure details		Remarks	Sign. Of SSE/JE (P.Way)
Failure			
Date	Type		
12		13	14