

## **EAST COAST RAILWAY**



प्रमुख मुख्य अभियंता कार्यालय  
रेल सदन, नार्थ ब्लॉक, पहली मंजिल  
चन्द्रशेखरपुर, भुवनेश्वर - 17

Principal Chief Engineer's Office  
Rail Sadan, North Block, 1<sup>st</sup> Floor  
Chandrasekharpur, Bhubaneswar - 17

No. W-4/374/CE Circular/6840

Dated: 17.10.2025

### **PCE Circular No. 06/2025**

#### **Sub.: Inspection and Maintenance of SEJs**

Fractures of SEJs is a matter of concern. As can be seen from the tabulation below, while the number of SEJ fractures is decreasing in the East Coast Railway, the IMR flaws detected on SEJs (all of them being Improved SEJs) are continuously on rise.

| Year                           | SEJ Failures | IMRs on SEJs                                            |
|--------------------------------|--------------|---------------------------------------------------------|
| 2023 - 2024                    | 11           | 32<br>(1 <sup>st</sup> Apr to 30 <sup>th</sup> Sep'23)  |
| 2024 - 2025                    | 03           | 105<br>(1 <sup>st</sup> Apr to 30 <sup>th</sup> Sep'24) |
| 2025 - 2026<br>(Upto Sept'025) | 01           | 112<br>(1 <sup>st</sup> Apr to 30 <sup>th</sup> Sep'25) |

2. Therefore, on one hand there is a need to reduce the development of flaws or cracks in the SEJs, on other hand it is also important to detect such flaws in other than USFD testing also before they lead to fractures. For this, proper inspection of SEJs as per the laid down schedule of inspection is necessary and the inspecting staff/supervisors/officers should have knowledge about what to look for during their inspections. Special maintenance efforts required for the SEJs should also be clearly known to the concerned field officials. This technical circular is being issued to reiterate and/or clarify these aspects.

#### **3. Frequency of Inspection of SEJs**

3.1 As per Para-103 and Item No. 7 of Table-1A of Indian Railway Permanent Way Manual (IRPWM), all LWRs/SJs are to be inspected "Once in six months (preferably in hottest and coldest months) by the ADEN".

3.2 As per Para-109 and Item No. 7 of Table-1B of Indian Railway Permanent Way Manual (IRPWM), all LWRs/SJs are to be inspected "Once in fortnight during two hottest and two coldest months on rotation by SSE/P.Way (In-charge) and



*JE/SSE/P.Way (Sectional) (The hottest and coldest months are specified by the DEN/Sr.DEN). Otherwise once in two months on rotation by SSE/P.Way (In-charge) and JE/SSE/P.Way (Sectional)".*

#### **4. Detailed examination of SEJs**

4.1 In addition to the schedule of inspection of SEJs as given above, complete opening, examination and greasing of the SEJs shall be done under traffic block, **once in Six months**, on a programmed basis under the supervision of at least JE/P. Way. This activity should generally be avoided in the extremes of both hot and cold weather.

4.2 The detailed examination and lubrication of SEJs should be done as per the following sequence:

- (a) Remove the nuts, connecting the brackets to the bearing plates of SEJs.
- (b) Create a gap between tongue rail and stock rail. Clean them with wire brush. Examine the tongue rail and stock rail for cracks, if any, by using magnifying glass.
- (c) "Improved SEJ Inspection Flyer" showing the commonly observed defects in Improved SEJ (ISEJ), needing special attention, was issued vide CTE/ECOR's letter no. W7/637/TMS/Pt-VIII/5296 dated 19.07.2024. A copy of the same is again attached herewith as Annexure. These locations should be examined very carefully during the detailed examination of ISEJs.
- (d) Grease the interfaces of tongue rail and stock rail.
- (e) Clean, examine and grease the interfaces of brackets & tongue rail and brackets & stock rail.
- (f) Reset the tongue rail and stock rail, as per standard drawing, replacing the defective/broken/cracked components of SEJ, if any. For this, spare components of SEJ should be kept available during the detailed examination.
- (g) Oil the nuts, connecting the brackets to the bearing plates, and tighten them.

4.3 Entries of such detailed examination of SEJs shall be recorded in the TMS.

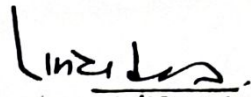
#### **5. Maintenance of SEJs**

**5.1** In conformity with Para 345(6) of IPRPWM, once in a fortnight the SEJs shall be checked, packed and aligned if necessary. Oiling and greasing of tongue and stock rails of SEJ and tightening of fastenings shall be done simultaneously.

**5.2** In conformity with Para 116(7)(a) and Para 345(6) of IRPWM, the Keyman during his daily patrolling shall keep special watch on the SEJs falling in his beat. He should carry out periodical (fortnightly) oiling and greasing of SEJ, checking and retightening of fastenings at SEJ and other sleepers, if necessary.

**This supersedes all instructions, in the PCE's Circulars issued earlier, in this regard.**

**Encl.: As above.**

  
17.10.10  
**(R. K. Shekhawat)**  
**Principal Chief Engineer**

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1. Secy. to GM for kind information of GM
2. PS to AGM for kind information of AGM
3. CAO/C/BBS and CAO/C/WAT
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6. CPM/RVNL/BBS, CPM/RVNL/VSKP and CPM/RVNL/Raipur
7. Sr.DEN/Co.ord./KUR, SBP and WAT for information and necessary action

**Commonly Observed Defects and  
Locations requiring Special attention during examination of ISEJs**

**1. Transverse(Vertical) Crack or fracture at machined cut curved location in Stock/Tongue rail.**



**2. Bolt hole crack or fracture in stock rail.**



**3. Web-Flange junction crack or fracture in Stock/Tongue rail.**



**4. Mid web crack or fracture at toe end of Stock/Tongue rail.**



**5. Surface defects on rail top surface of Stock/Tongue rail.**

