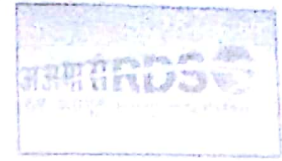




भारत सरकार - रेल मंत्रालय
अनुसंधान, डिजाइन और मानक संगठन
लखनऊ- 226 011
EPBX (0522) 2451200
Fax : 0522 - 2452581

Government of India Ministry of Railways
Research Designs & Standards Organisation
Lucknow- 226 011
DID (0522) 2450115
DID (0522) 2455310



No. EL/3.2.66

Date: 28.03.2018

Principal Chief Electrical Engineer, 1. Central Railway, Mumbai, CST-400 001. 2. East Central Railway, Hazipur-844 101. 3. East Coast Railway, Chandrashekharapur, Bhubaneswar-751 016. 4. Eastern Railway, Fairlie Place, Kolkata-700 001. 5. North Central Railway, Block-A, Subedarganj, Allahabad-211 033. 6. Northern Railway, Baroda House, New Delhi-110 001. 7. North Western Railway, Jaipur- 302 006 8. North Eastern Railway, Gorakhpur-273001 9. North East Frontier Railway, Maligaon, Guwahati-781011 10. South Central Railway, Secunderabad-500 071. 11. South East Central Railway, Bilaspur-495 004. 12. South Eastern Railway, Garden Reach, Kolkata-700 043. 13. Southern Railway, Park Town, Chennai-600 003. 14. South Western Railway, Hubli- 580020 15. West Central Railway, Jabalpur-482 001. 16. Western Railway, Churchgate, Mumbai-400 020 17. Chittaranjan Locomotive Works, Chittaranjan-713331 18. Diesel Locomotives Works, Varanasi	प्रमुख विद्युत् अभियंता 1. मध्य रेलवे, मुम्बई सीएसटी -400 001 2. पूर्व मध्य रेलवे, हाजीपुर-844 101 3. पूर्व तटीय रेलवे, चन्द्रशेखरपुर, भुवनेश्वर-751 023 4. पूर्व रेलवे, फेयर्ली प्लेस, कोलकाता-700 001 5. उत्तर मध्य रेलवे, ब्लॉक ए-2, सुबेदरगंज इलाहाबाद - 211 033 6. उत्तर रेलवे, बडौदा हाऊस, नई दिल्ली-110 001 7. उत्तर पश्चिम रेलवे जयपुर- 302006 8. उत्तर पूर्व रेलवे गोरखपुर- 273001 9. उत्तर पूर्व फ्रन्टीयर रेलवे मालीगाँव गुवाहाटी-781011 10. दक्षिण मध्य रेलवे, रेल निलायम, सिकंदराबाद-500 371 11. दक्षिण पूर्व मध्य रेलवे, बिलासपुर - 495 004 12. दक्षिण पूर्व रेलवे, गार्डनरीच, कोलकाता-700 043 13. दक्षिण रेलवे, पार्क टाउन, चेन्नई-600 003 14. दक्षिण पश्चिम रेलवे हुबली-580020 15. पश्चिम मध्य रेलवे, जबलपुर-482 001 16. पश्चिम रेलवे, चर्चगेट, मुम्बई- 400 020 17. चित्तरंजन रेल इंजन कारखाना, चित्तरंजन -713331 18. डीजल रेल इंजन कारखाना, वाराणसी
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SPECIAL MAINTENANCE INSTRUCTION NO. RDSO/2018/EL/SMI/ 0321(Rev '0')

Dated 28.03.2018

1. Title:

Improving reliability of Armature Shafts of Traction motors by not rebuilding Armature Shaft by welding for conventional as well as 3 phase Locomotives

2. Brief History:

2.1 In investigation of some cases of breakage of armature shaft, M&C Directorate, RDSO had found weld deposits on the shaft, which had resulted in formation of micro cracks, and from such micro cracks, fatigue had initiated in multi nuclei manner and caused breakage of shaft.

2.2 M&C Directorate of RDSO vide Metallurgical Investigation Report Nos 116/17 & 119/17 dated 24.11.2017 had recommended that Re-building of shaft by welding is highly undesirable, objectionable and detrimental to metallurgical properties of material and results in premature failure of material. Any kind of welding should not be resorted.

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3. **Object:**

Improving reliability of Armature Shafts of Traction motors by not rebuilding Armature Shaft by welding for conventional as well as 3 phase Locomotives.

4. **Modified Instructions :-**

Re-building of shaft by welding is highly undesirable, objectionable and detrimental to metallurgical properties of material and results in premature failure of material. Any kind of welding on the shaft shall not be done.

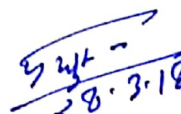
5. **Application class :**

Applicable to all types of Electric Locomotives.

6. **Agency of Implementation:-**

- i) Workshops/Agencies carrying out re-shafting of Traction motors of Conventional as well as 3 phase Electric Locomotives.,
- ii) Manufacturers of new Traction Motors of Conventional as well as 3 phase Electric Locomotives.,
- iii) Traction motor armature/rotor shaft manufacturers.

Encl: nil



(P. K. Saraswat)
for Director General/Electrical