

भारत सरकार GOVERNMENT OF INDIA
रेल मंत्रालय MINISTRY OF RAILWAYS
(रेलवे बोर्ड RAILWAY BOARD)

No. 2007/ M(C)/137/16/Vol (ix) Part

New Delhi dated 28.2.2017

Chief Mechanical Engineers (All Indian Railways)
Chief Mechanical Engineer, RCFK
ED/Carriage/RDSO

Sub: Breakage of Springs of FIAT Bogies

Ref: 1. ED / Carriage/RDSO vide letter No .SV.FIAT / Spring dated 09.01.2017.
2. CQM / RCFK vide letter No.MTQ/12004 dated 25.01.2017

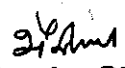
CME/NR has reported an alarming number of cases of coil spring breakage of FIAT bogies. Similar failures have been reported by the other Railways too.

As per the analysis of RDSO, most of failed springs pertain to a specific manufacturer, i.e. M/s LPDN Germany. M&C Dte. of RDSO in its investigation report of 4 failed springs has concluded that failure has taken place a fatigue manner attributable to the presence of corrosion pits at the contact surface. Further, microstructure examination revealed patches of retained austenite and a tendency towards banded structure in the core region, which may have resulted from improper heat treatment cycle. It was also found in earlier analysis that phosphating has not been done by M/s LPDN in their springs.

A committee of CQM/RCFK, DME/Chg./RB, Director/Carriage/RDSO, Sr.DME/Chg/NDLS and Sr.CDO/BCT has also recommended that the Railways should replace the secondary outer springs of LPDN 2012 make that are fitted in coaches / bogies. In view of the above, following action shall be taken in this regard:

- a. The Zonal Railways shall replace the secondary outer springs of LPDN 2012 make that are fitted in coaches / bogies (as per the list already circulated by RCFK vide CQM/RCFK's letter No.MTQ/12004 dated 25.01.2017) in a time bound manner. Proper pairing of the springs must be ensured while replacing these springs.
- b. Zonal Railways may keep a watch on these coaches particularly of 2015-16 series till the replacement of springs is completed.
- c. RCFK shall arrange to supply the springs to the Railways for replacement.
- d. RCFK shall take up the matter with M/s LPDN and arrange to get the warranty replacement. RCFK shall also take other action against this vendor, as deemed necessary, including its delisting.
- e. The Railways shall ensure scrupulous compliance to the instructions issued by RDSO from time to time regarding the maintenance of Flexi coil springs of LHB coaches, both in the Open line as well as Workshops.
- f. Zonal Railways and PUs shall audit and improve the spring handling / storage practices.

A report of the action taken / planned along with time lines may be submitted to Board by 28.2.17.


(Shailendra Singh)
Exec.Dir. Mech Engg.(Chg.)
Railway Board