



भारतीय रेल (रेल मंत्रालय)
डीजल रेल इंजन कारखाना
वाराणसी-२२१००४, भारत
INDIAN RAILWAYS (MINISTRY OF RAILWAYS)
DIESEL LOCOMOTIVE WORKS
VARANASI-221004, INDIA



DESIGN BULLETIN

Design Bulletin No. – DB/02/2014/01

- Subject :** Failure of radiators on WDG4/WDP4B/WDP4D locomotives.
- Background :** Complaints received from Zonal Railways regarding failure of radiators on HHP locomotives
- References:** (i) CMPE(D)/W.Rly's L.No. M233/172/6(HHP) dated 30 July 2013
(ii) Sr.DME(D)/SGUJ's L.No.D/BG/GM Loco/Performance/Pt. III dated 03 Sept. 2013
- Objective :** Failure investigation & recommendations for minimizing the cases of radiator failure on HHP locomotives.

Recommendations -

Mechanically bonded radiators being used on HHP locomotives are being procured to EMD Pt.No. 10631855 (RH) & 10631856 (LH). These are being procured as a kit against DLW Pt. No. 17455017.

A large number of failures of core tubes are being reported by Zonal railways. While factors contributing to these failures are being investigated & analyzed, an interim action to minimize effect of vibrations (being transmitted to the radiator cores from engine side) on the performance & reliability of MBRs has been recommended. Modification recommended is as under:

- (i) Dresser coupling to be introduced on both the water inlet sides. The vibration has been measured and 12 % reduction in the vibration levels on the MBR side has been noticed after application of dresser coupling. This has been implemented from Loco no. WDG4 12853 (KZJ) & WDP4D-40149 (IZN) onwards.

