

G/F

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAILWAY BOARD

No. 2007/M(C)/137/16 Vol(xi)

New Delhi, dt. 03.12.2019

The PCMEs,
All Production Units

Sub: Reduction in weight of LHB coaches

- Ref:** (i) RDSO report on weight reduction in LHB & ICF design coaches of October, 2017
(ii) Discussion in 19th CMG meeting held in November, 2019

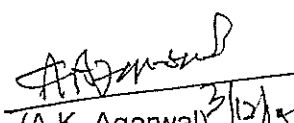
As per original specification, the weight of LHB coach was restricted to 39 tonnes. With development of various variants in LHB and fitment of bio tanks, the weight of LHB coaches which are being manufactured have gone up very high to the extent of 50 tonnes. The issue of reduction in weight of new coaches was discussed in detail during the recently held CMG meeting in November, 2019.

Due to this high weight, the cases of primary and secondary spring breakages have increased manifold. It was informed by CDEs of PUs that the possibility of increasing the spring stiffness is very limited. Under these circumstances, it is necessary to look into all the possibilities for reducing the weight of the existing coaches by properly optimizing the structural design as well as interior fittings in the coaches.

As regards structural design, all PUs have to ensure that only 2 mm thick sheet is used for side wall fabrication. There is a huge possibility of reducing the weight on account of interior furnishing. Use of honeycomb material for partitions instead of steel fabricated partition should be implemented for all types of coaches. Further, the RDSO report in connection with the reduction of weight of coaches including items in interior furnishing is enclosed herewith for your guidance. Considering the facts that various modern light materials are now available in the market it is possible to reduce the weight more than what is specified in RDSO report. All PUs should work for a target of reducing at least 2000 kg weight with better interior fitting designs and furnishing material with immediate effect.

Action plan in this regard may be submitted to Railway Board within next 10 days.

DA: As above [sent via email]


(A.K. Agarwal) 3/12/19
Additional Member (Mech.)
Railway Board