

## **OPERATING CONDITIONS FOR COUPLERS**

1. Coach Type : Broad Gauge Passenger Coaches  
(fitted with Semi-permanent Coupler)
2. Axle Load : 20.32t (max.)
3. Gross Load (Coach) : MC-80.72t, TC (D)71.80t,  
TC(C)-70.68t & TC(C) -71.58t (max.)
5. Grade : 1 in 37 (steepest)
6. Speed (maximum) : 160 km/h
7. Curve (Sharpest) : 175 m (radius)
8. Climatic & Environmental Conditions
  - Maximum Temperature (under the sun) : 70<sup>0</sup>C
  - Maximum Temperature (Under shade) : 45<sup>0</sup> C
  - Minimum Temperature (at night) : -5<sup>0</sup>C
  - Rainfall : Fairly Heavy
  - Humidity : 100% saturation
  - Environment : Dusty during hot weather and  
saline in coastal areas
9. Coupler Height (for coaches) : 1035 mm (from Rail Level)
10. Coupler Height (for locos) : 1090 mm (from Rail Level)
11. Wheel Diameter (for coaches) : 952 mm (new) :MC-877, TC-857  
& HCC-865 mm (condemning)
12. Type of Brake System : Electro pneumatic brakes having  
composition or cast iron brake  
blocks.
13. Maximum number of coaches  
in rake formation : 24 coaches
14. All the coupler heads, muff coupling and locking arrangements in the rake  
shall be similar to existing Scharfenberg semi-permanent type couplers  
except for driving end where provisions shall be made for fitment of draw  
hook or compatible with screw coupling or AAR 'H' type CBC or 'E' type  
CBC to in the place of coupler head.
15. The distance between the headstock and coupling line shall be 400 mm  
when semi- permanent couplers are fitted.

16. The semi-permanent couplers shall be provided with arrangement for coupling of brake pipes.
17. The coupler mounting arrangement shall be provided along with semi-permanent couplers.
18. All intermediate couplers in the four car / three car units shall be of the semi-permanent type.
19. Side Buffers : On end of coaches
20. Coach Strength : Satisfies end load requirements as per UIC 566