OPERATING CONDITIONS FOR HIGH CACPCITY SEMI-PERMANENT COUPLER

1.	Coach Type	:Broad Gauge LHB Passenger Coaches
2.	Axle Load	:16.25t (max.)
3.	Gross Load (Coach)	:65t (max.)
4.	Gross Load (Train)	:1700 t (max. Without loco)
5.	Grade	:1 in 37 (steepest)
6.	Speed (maximum)	:200 km/h
7.	Curve (Sharpest)	:175 m (radius)
8.	Climatic & Environmental Conditions	

Maximum Temperature (under the sun)	:70^0C
Maximum Temperature (under shade)	:45^0 C
Minimum Temperature (at night)	:-5^0C
Rainfall	: Fairly Heavy
Humidity	: 100% saturation
Environment	: Dusty during hot weather and saline in coastal areas

9.	Coupler Height (for coaches)	:1105 mm(from Rail Level)
10.	Coupler Height (for locos)	:1090 mm (from Rail Level)
11.	Wheel Diameter (for coaches)	: 915 mm (new) 845 mm (condemning-LHB variants)

12. (i) Maximum coupling/uncoupling operations: 12 per day.

(ii) Speed at the time of coupling loco with rake: 3 kmph

13.	Type of Brake System	: Graduated Release Twin Pipe Air Brake System generally as per UIC 540. Coaches shall be equipped with disc brakes or clasp type brakes having composition or cast iron brake blocks.
14.	Braking Distance of Train	: 1200 m from a speed of 160 km/h

15. Maximum deceleration : 1.3 m/sec^2

16. Rolling Resistance of Coaching stock:

$R = 0.685 + 0.0211V + 0.000082\ V^2$

Where, R= Rolling Resistance in kg/t of coach weight and
V= Speed in km/h

17. Side Buffers : On end coaches next to locos. (Power Cars and SLRs only)

18. Coach Strength : Satisfies end load requirements as per UIC 566