WDG4-4500 HP GOODS LOCOMOTIVE

Board gauge goods traffic Co-Co diesel electric locomotive equipped with 16 cylinder 4500 hp engine with IGBT based traction control system.

The first WDG4 loco was manufactured by DLW in 2002 under Transfer of Technology from General Motors, USA (Now EMD). This loco had a capacity of 4000 hp and used GTO technology. Later, DLW upgraded the capacity to 4500 hp along with switchover from GTO to IGBT technology. The loco has very good fuel efficiency and very low maintenance requirements. It is ideally suited for heavy haul freight operations.

Diesel Engine

- 16 Cylinder 710 G3B, 2 Strock, turbocharged - after cooled
- Fuel Efficient Engine
- Injection System - Machenical Unit Injector
- Governor - Woodward
- Compression Ratio - 16: 1
- Lube Oil Sump Capacity - 1457 Ltrs.

Brakes

- Electronic Air Brake System (KNORR-NYAB-Computer Controlled Braking)
- Air, hand, dynamic brake
- Pure air brake

Transmission

- Electrical AC-AC
- 6 Traction motor (3 in parallel per bogie)
- Suspension - Axle hung / taper roller bearing
- Gear Ratio - 90:17

Truck

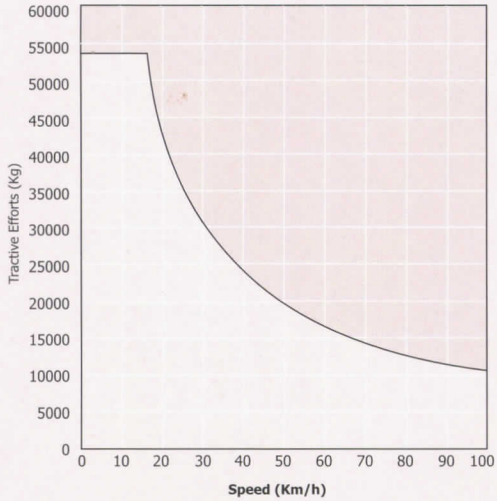
- High adhesion HTSC (High Tensile Steel Cast) Truck
- Unidirectional Traction motor arrangement for high adhesion

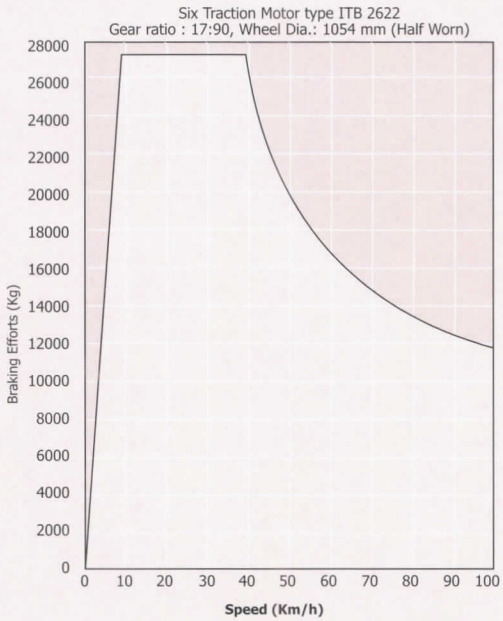
OUR LOCOS MOVE THE NATION

General Characteristics	
Installed Power	4500 HP
Axle Load	21 T
Gauge	1676 mm
Wheel arrangement	Co-Co
Wheel diameter	1092 mm
Height	4201 mm
Width	3200 mm
Overall Length (Over Buffer Beam)	19964 mm
Weight	126 T
Max tractive effort	540 KN
Max Dynamic Brake	27 T
Maximum Speed	100 Kmph
Fuel tank capacity	6000 ltrs.
Locomotive Control	Loco Control Computer Traction Control



Tractive Effort & Dynamic Brake Chart





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