

## Report on Industrial visit(electric loco shed)



Date: 22/9/16

We visited electrical loco shed at Pratap nagar, Baroda. (Date 21/9/16 & 22/9/16).

We gained knowledge about locomotive engine and all locomotive parts and simulation procedure of loco pilot.

Loco receive power through pantograph from Source – 25KV, 1-phase, AC supply, 50Hz.

Inside of loco two type supply use; one for low tension supply(LT) for control and other one for main supply HT supply for drive the motors.

Electrical loco Equipment:

Transformer, Rectifier block, Motors(Hitachi), DBR, VCB, CB(DJ), Tap changer(GR), pantograph, Smoothing reactor(SL), Compressor(CP), Bogie frame, Wheel set assembly.

Nical cadmium 110V battery use for..... total batters are 10 each of 11V. For mechanical and electrical break air compressor are used. Disc jointer use as a MCB; it is operated in millisecond. One step down transformer use for the regulate the supply. 2pantograph are use above the loco. With the help of rectifier convert AC in to DC to drive the DC series motors. No. of 6 motors are use.

This loco capable for the 5000 to 6000 Ton goods wagons.

Safety purpose different type of system and relays are use like Over voltage, earth fault, etc. protection. For auxiliary power supply to 3-phase induction motor use Arno-converto, this Arno-converto convert 1-phase supply into 3-phase supply.

We have experienced to drive the loco in simulation set up.

To drive the loco 3 keys are use. Fist key use the on main supply, second use for pento graph, and three for the loco drive in forward and reversed.

Loco simulators are purchased from France.

Loco pilots of Indian railway get training with the help of highly sophisticated and technically advanced simulator by trainers and enhance skill of loco piloting.