

# DIESEL POH SHOP DETAILS

BY

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# DIESEL SHOP(DPOH)

- This is a shop under Workshop responsible for periodic overhauling of diesel locomotive components.  
POH schedule is done at this shop. M-96 for each ALCO loco is done after every 8 years.  
For HHP locos it is not decided in details.

# DIESEL LOCO





**Diesel Loco Engine Block & its Components  
under fitment**

Different Wings of DPOH do the task

# Different Wings of DPOH

- 1) Mechanical Wing
- 2) Electrical Wing
- 3) Special Repair Wing
- 4) Technical Cell / Wing
- 5) Material Management Cell / Wing
- 6) Office ,Establishment & Pass Section

# ***1. MECHANICAL WING***

- **POWER PACK SECTION**
- **POWER ASSEMBLY & CYLINDER HEAD SECTION**
- **AIR COMPRESSOR SECTION**
- **AIR BRAKE SECTION**
- **BODY & CHASSIS SECTION**

- FIP (Fuel Injection Pump) & Nozzle Bench/Section
- Pipe Line & Radiator Bench/Section
- Stripping & Assembly Section
- TSC (Turbo Super Charger) & Other related parts maintaining Section
- Bogie section

## 2. ELECTRICAL WING

- Winding Section
- Coil Manufacturing Section
- Control Equipment Section
- Generator Section
- Traction Motor Section
- Locomotive Section
- Battery Section
- Small Motor Section



# ***SPECIAL REPAIR WING***

- This wing is for over hauling and repair of DEMU(Diesel Electric Multiple Unit), SPART (Self Propelled Accident Relief Train), Tower Van etc.

# ***MATERIAL MANAGEMENT CELL***

This section assists in

- Non Stock Procurement
- Assistance Of Material
- Inventory Control
- Material unloading
- Communication with Store Department

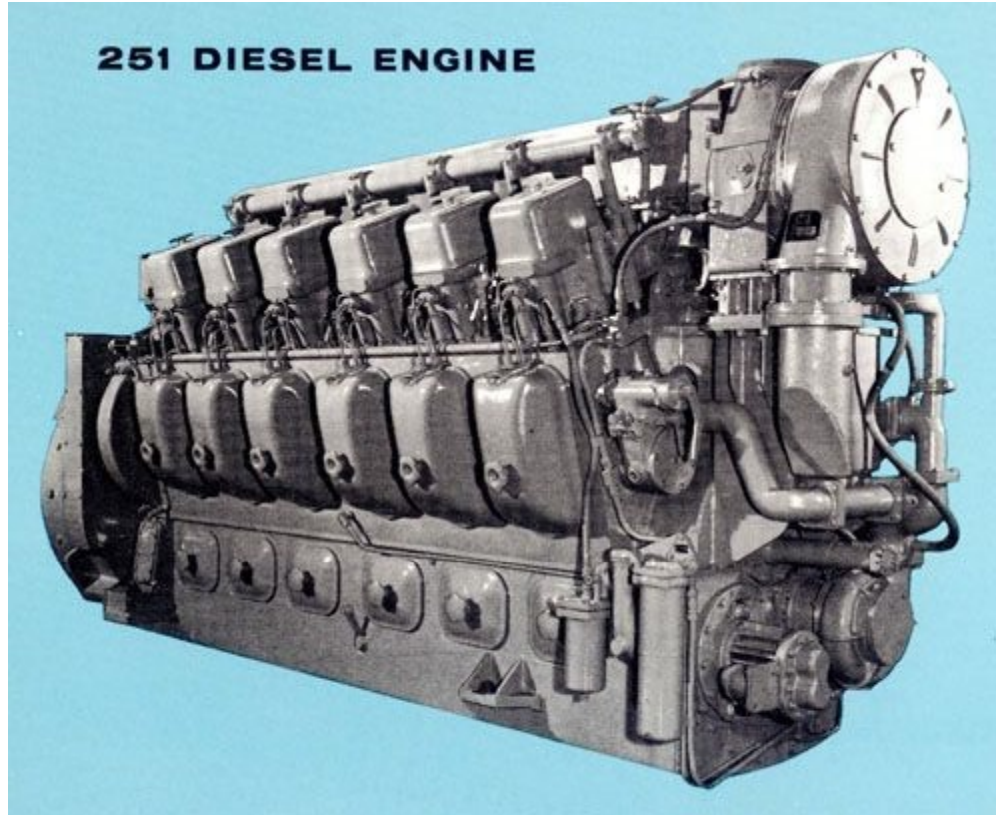
# ***TECHNICAL CELL***

- All technical related works of diesel shop
- Distribution of Bulletins regarding modifications to individual Section, Failure details collection etc.
- Helping hand of Dy. CME.
- Communicate with Sheds for loco related different information.

# ***OFFICE, ESTABLISHMENT & PASS SECTION***

- Provides Individual Chambers for AWM, WM & Dy. CME.
- Letter receiving and sending to other offices.
- Seniority List, Leave of employee, master roll preparing at the end of the month.
- Issuing Charge sheet to employees as per order of relevant authority.
- Sending of master rolls, TA journals, Leave encashment, CEA etc to WPO office.

**251 DIESEL ENGINE**



**POWER PACK SECTION**

# Power Pack Section

- ALL engine block related components like, Cylinder Head, Pistons, Fips & their supporting brackets are removed from their locations and sent to respective sections for overhauling, repair etc.
- Overhauled or new components are refitted at respective locations step by step after collection from respective sections.
- Other accessories like TSC, Water Pump, Lube oil Pump etc are also removed form engine block to send their respective Section for Overhauling

# Power Pack Section

- Overhauled or new components are refitted at respective locations step by step.
- Cam Shafts, Crank Shaft etc are also removed for cleaning, testing (like DP, Run Out etc), replacement work.
- Split Gear, Cam Gear, Extension Shaft Gear, Filters also removed & refitted after according to requirement.



## **Steel Cap Piston**

**P/A & Cyl. Hd Section**



# PISTON BENCH WORK

- Components from removed pistons are separated (such as connecting rods, wrist pins, piston rings etc).
- Cleaned in cleaning tank with detergent and hot water for carbon and lubricant removal and finally manually.
- Zyglow test is done
- New rings fitment, tested or new connecting rod and wrist pin are done before submitting to Power Pack or Heavy Sch. Sec.



**Cylinder Head**

**P/A & Cyl. Hd Section**

# Cylinder Head Work

- Similar to piston, all auxiliaries are removed then it is cleaned in cleaning tank with the help of cleaning reagent.
- Hydraulic test is done for finding cracks in water passage.
- Refitment or assembling is done by tested or new components.
- Blow by test is done for ensuring sealing efficiency at the contact surface of valve & its seat.

## Power Assembly & Cylinder Head Section

- Exterior Cleaning, Dismantling, cleaning, overhauling of Pistons, Connecting Rods, Cylinder Heads are done.
- Replacement of defective components by new one are also done during overhauling.
- Testing like DP, Blow by, Hydraulic, MPI (Magnetic Particle Inspection) are also done.

# TSC Section



# TSC Section Work

- Dismantling, cleaning of components are done.
- Rotor balancing is one of the most important work and done before assembling.
- Oil seals ,sealant gaskets, foundation bolts etc are new fitted.
- After complete assembly same is sent to respective wing for service.

# Air Brake Section

Bracket Mounted Panel



Tri mount Panel



# Air Brake Section Work

- Testing in loco
- Removal of valve from loco
- Overhauling of valves with new kits & testing at Testing Stand
- Fitment of new or overhauled valves (tested)
- Line duty works for loco trouble rectification



# AIR COMPRESSOR SECTION

3 CD Conventional A/C



RR80101 A/C (Upgraded)



# Air Compressor Section Work

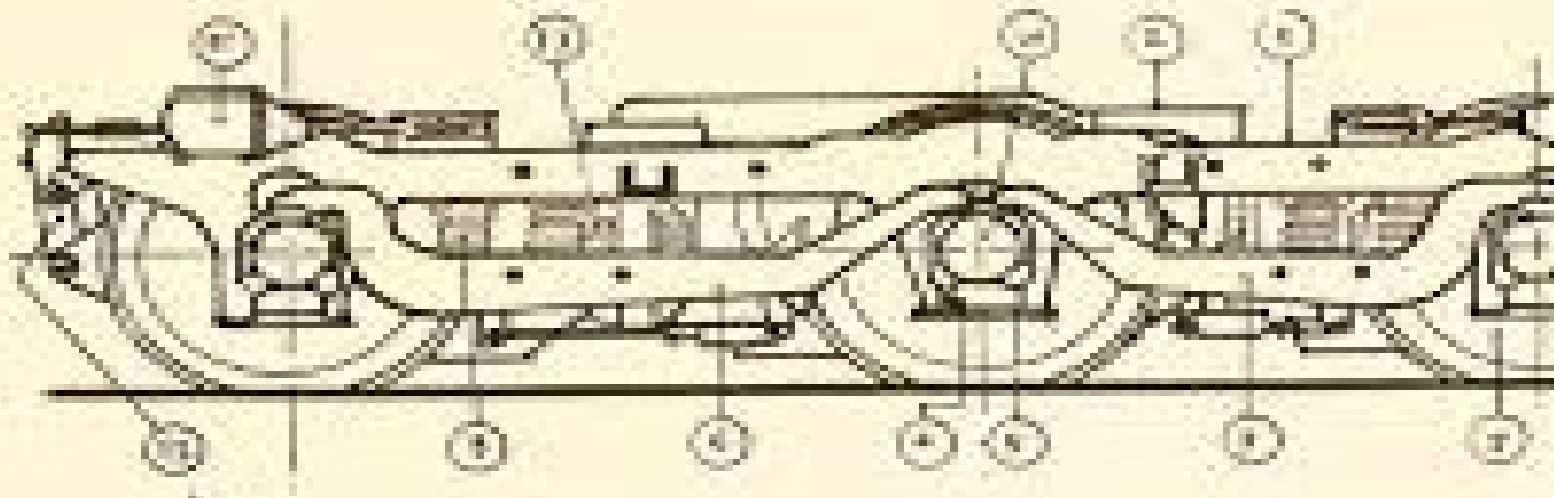
- Testing in loco for performance checking
- Cleaning, dismantling, recleaning of body, components
- Overhauling of valves with new kits
- Fitment with new or overhauled tested components
- Final testing of ready compressor at testing stand before dispatch
- Line duty works for loco trouble rectification

## Bogie Section Work

- Testing in loco
- Truck Removal from loco
- Removal of components like TM, Gear Case, Brake blocks Axle box etc from trucks
- Overhauling of Brake cylinder with new kits & greasing, cleaning of gear case refitment etc
- Fitment of trucks in loco again
- Line duty works for loco trouble rectification

# Bogie

## CO-CO TRIMOUNT BOGIE



1 BOGIE FRAME

2 CENTRE PIVOT

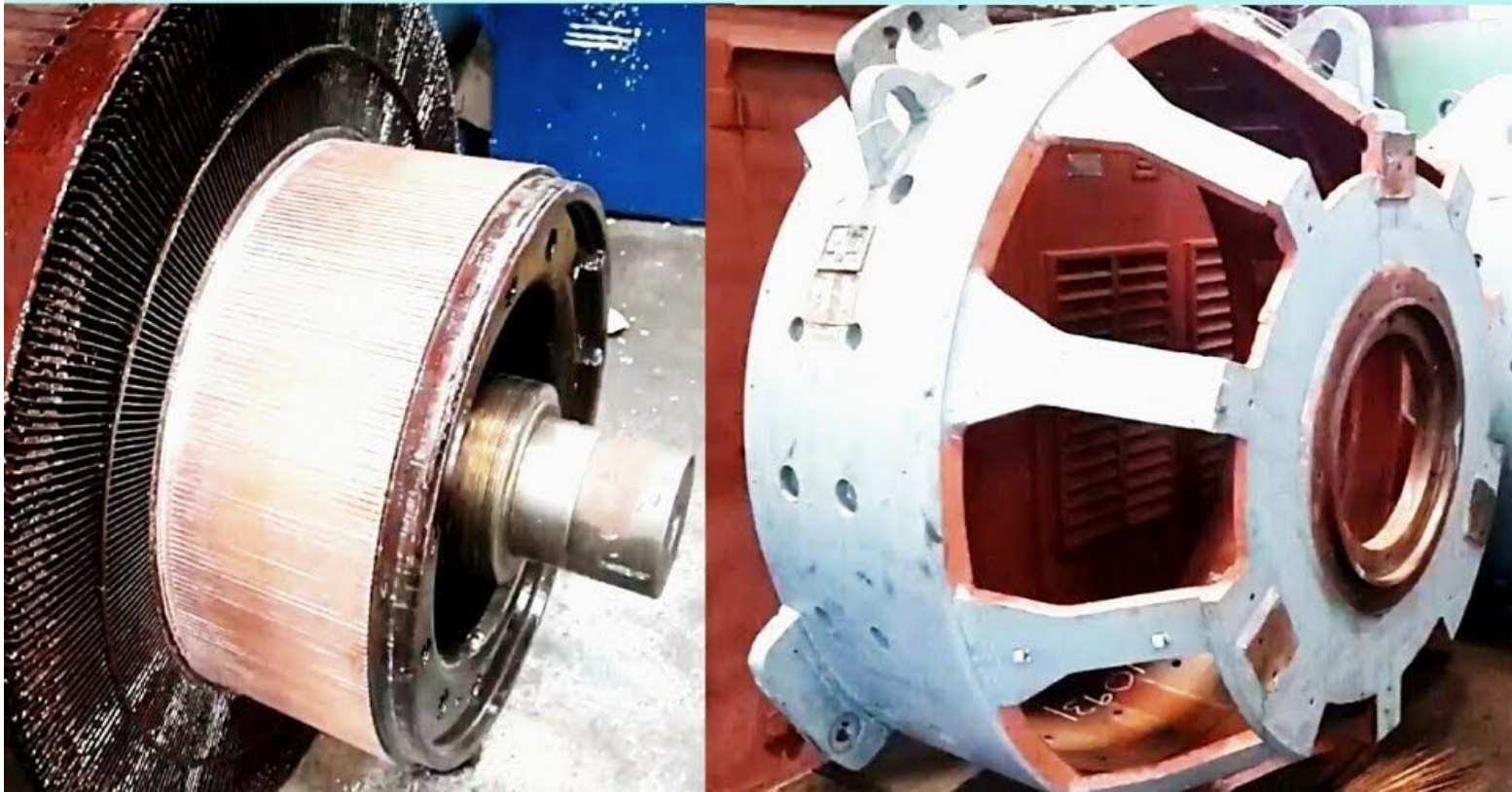
7 EQUALIZING BEAM

8 COIL SPRING

# Air Brake Section Work

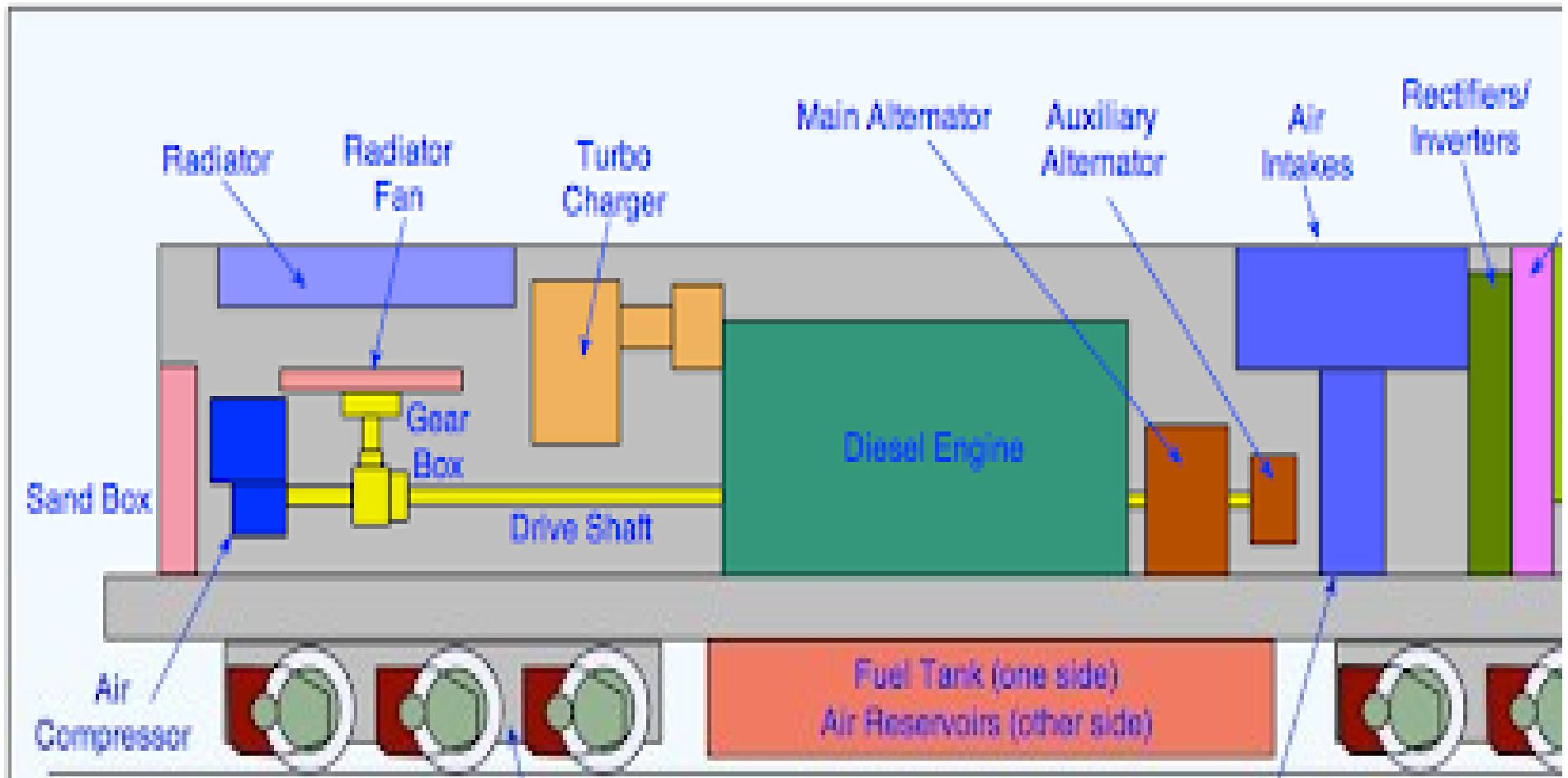
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**Main Alternator**

**GENERATOR SECTION**



## Locomotive Components Name & their Location

Terms related with identification



**Traction Motor**

**Under Traction Motor Bench/Section**



**Thank You**

