



DIESEL LOCOMOTIVE SHED

INFORMATION BROCHURE



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Introduction:

Diesel Locomotive Shed, New Guwahati (or DLS NGC in short) is the easternmost Broad Gauge Locomotive Diesel Shed of the country catering to passenger and freight traffic in the North-eastern and Eastern part of India. It was initially set up as a Meter Gauge locomotive satellite shed of Siliguri in December 1962. DLS NGC developed into full fledged shed in June 1979 with a holding of 50 YDM4 locomotives. The first BG locomotives 36080 WDS6 was homed in the shed on 23rd March 1986. With the unification of gauge after 1993 to Broad Gauge between Lumding and Guwahati, the MG locomotives were shifted to Lumding Diesel Locomotive Shed and New Guwahati Diesel Locomotive Shed became a BG locomotive shed w.e.f 12th April 1993. 3100 HP locomotives were introduced in the shed in May 1999.

Presently, the shed loco holding consists of WDM2, WDM3A, WDM3D, WDG3A and WDS6. The shed is spread over an area of about 50 acres and has repair bay capacity of 15. The shed also maintains trouble shooting points at GHY, KYQ and TSK apart from looking after the maintenance of GHY based SPARMV and 140 Tn Crane. The shed has recently achieved status of being a zero discharge shed along with obtaining hazardous waste handling authorization from Pollution Control Board Assam. The shed is pioneer in following ecological and pollution control measures. Being the flagship shed of the NF Railway, the shed has been instrumental in the growth of the Railway and the north-eastern region of the Country.

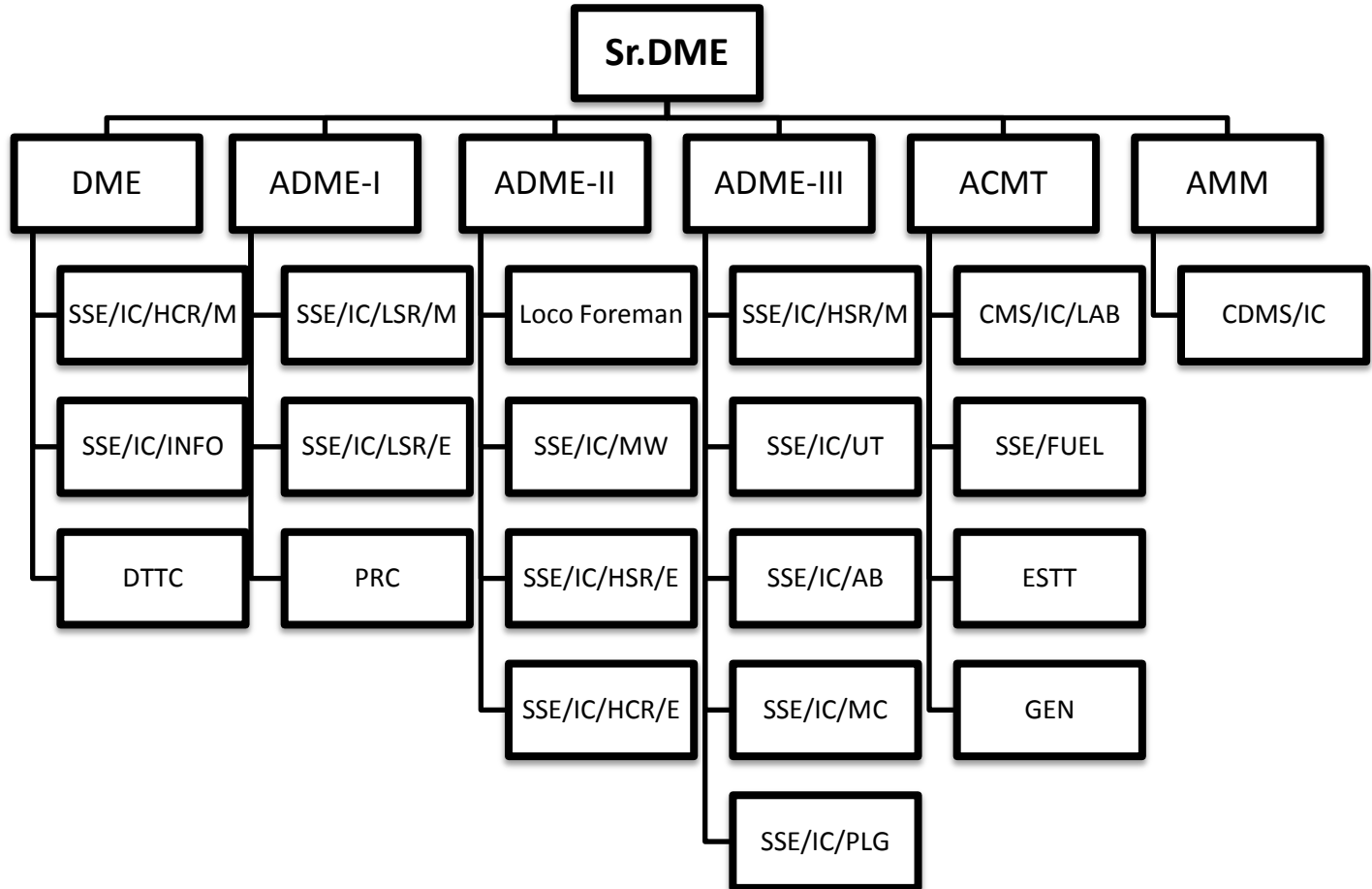
DLS NGC:

COMMISSIONED ON (AS MG SHED)	:	1962
CONVERSION TO BG SHED	:	1993
LOCO HOLDING	:	124

LOCO BREAKUP:

Type	No of loco
WDG _{3A}	51
WDM ₂	19
WDM _{3A}	13
WDM _{3D}	16
WDM _{2S}	13
WDS ₆	12
Total	124

Organizational Structure:



Salient Features:

- The maintenance of self propelled accident relief medical van (SPARMV) stationed at Guwahati Station is with the Shed.
- The shed also does maintenance of 140 T break down crane at NGC.
- DLS NGC is maintaining a troubleshooting point at TSK, GHY & KYQ station.
- DLS NGC is nodal shed for ACD maintenance of ACDs of all locos of NF & Foreign Railway sheds.
- DLS NGC has a DTTC for training of Diesel Staff and Running Staff. The shed hostel has bedding capacity for 40 trainees.
- DLS NGC has manned all its entry and exit gates on 24x7 basis by arranging private security deployment.

Achievements:

- DLS NGC is the first ever shed on Indian Railways in fitting of ACD (Anti-collision Device) in all locomotives. These equipments are working satisfactorily in the locomotives.
- DLS NGC had in September/2014 published an All India Diesel Directory having the contact details of all Officers and Supervisors of all the Diesel Loco Sheds, Diesel Loco Workshops and HQs over IR. This compilation of contacts of all diesel units in IR was done for the first time in the history of IR
- DLS NGC had organized an All India Diesel Loco Seminar from 12/12/2014 to 13/12/2014 coinciding with its 53rd foundation day. The seminar was attended by senior supervisors from 23 Diesel Loco Sheds and Workshops to discuss the failure prone areas, innovations, modifications and reliability measures taken by them. Such kind of seminar involving senior supervisors was conducted by any shed for the first time in IR. The Shed will soon be releasing its compendium.
- DLS NGC has received a Zero Discharge certificate from the Pollution Control Board of Assam in the year 2014-15. No water (treated or otherwise) from Shed is discharged outside. The treated water from the ETP is utilized for internal plantation watering and cleaning purpose.

- DLS NGC planted over 500 trees all over the Shed on the occasion of the World Environment Week in June 2014. This was done in collaboration with Forest department, Assam. It is planned to make this an annual event.
- DLS NGC has been rigorously following weekly Shed cleanliness drive on every Saturday since the 2nd October 2014, the starting of Swachch Bharat Mission.
- DLS NGC has installed a centralized compressed pipeline in all the repair bays in December 2014 for making air blowing available at all locations in the repair bay.
- DLS NGC is initiating a Database Information Management System to convert into a paperless office and progressing towards the Prime Minister's Digital India Mission. This system plans to make the data related to locomotive available for instant retrieval for analysis and will also make it available for remote access.
- DLS NGC is in the process of installation of DM water plant and centralized water pipeline in the repair bays which will help reducing problems regarding water system failures and shunting movement for water topping.
- Water consumption of the shed has been reduced by 20% per day by fitting extra valves in water line & in storage tanks during Jan- Feb 2015. These valves help in stopping overflow of water thereby reducing wastage of water by considerable amounts.
- The shed has disposed scrap of about 157.705 Tons (Ferrous & Non Ferrous) in the year 2014-15 which is 21.31% more than its target.
- The shed is one of only two sheds all over IR which is overhauling & maintaining the MEP & MCBG of its 72/82 nos locomotives in house. The other shed is DLS VSKP

Pictures of Various Shed Occasions



GM/NFR Shri R S Virdi releasing All India Diesel Directory on 17th September 2014. Also present are CME/NFR Shri S K Aggarwal (Extreme Right) and COS/NFR (Second from Right).



“Swachh Bharat Mission” launched in DLS NGC from 02/10/14 and has been observed every Saturday from thereon.



All India Diesel Loco Seminar at DLS NGC on 12th and 13th December 2014: Delegates from about 22 sheds and workshops all over IR.



Officers from HQ and Shed during the **All India Diesel Loco Seminar** at DLS NGC on 12th and 13th December 2014.



IIT Guwahati Mechanical Engineering Prof. Rajiv Tiwari (Center) along with other IITG Research Associates and members of media during the All India Diesel Loco Seminar at DLS NGC on 12th and 13th December 2014.

The All India Diesel Loco Seminar at DLS NGC on 12th and 13th December 2014
SOME PRESS RELEASE CLIPPINGS



Efforts Taken by DLS NGC on LUBE OIL/HSD Saving

- a. L/Oil consumption trend on locomotives is monitored very closely. A limit of 200L/month is fixed.
- b. A loco requiring more than 200 liters/month is checked up for leakage and monitored through exception list.
- c. Conversion of Lube oil filter drum to Capsule type filter: 67 locos completed
- d. Fitment of Centrifuge lube oil cleaner: 88 locos completed.
- e. Blow bye started during M4 and above to ascertain the case of high lube oil.
- f. M4 sch.: Load box of locos done to see the leakages from cylinder head elbows.

RELIABILITY DRIVES in the Shed:

- a. All locomotives off POH/RB/IOH are taken up for special quarterly schedule to arrest the failures prone after major overhauling of locomotives as experienced by DLS NGC in the past and improve reliability of locomotives.
The locos are taken for lifting to check the traction motors, car body cables, center pivot and other under gear fittings. All small motors are removed, overhauled again by electrical component section and fitted back to ensure reliable service.
- b. DLS NGC started the system of condition monitoring of different loco subassemblies through temperature measurement and trend monitoring of these measured temperatures. Shift supervisors have been provide with temperature measuring laser guns, noise measuring industrial stethoscope and vibration meters. Vibration velocities checking of Electrical machinery were started during running and heavy schedule of locomotive.
- c. The consumables like water, lube oil, compressor oil and Fuel oil are being monitored and locos high oil consumption beyond the set limits are checked for problem areas.
- d. Load box of locos during M4 schedule onwards is done to check the vital loco performance parameters, to take corrective action immediately before deteoration resulting in failure of critical sub-assembly.
- e. Out of course blow-bye test is being done on locos with heavy lube oil consumption to plan for liner and head changes during schedule attention of locos.

- f. Painting of locos during special /minor schedules to give better look of locos. Loco cleaning is done during every schedule (major or minor)
- g. Small motor armature shaft and bearing inference checking done due to which the failures of bearing of small motors are arrested.
- h. Locomotive having the low IR value are attended immediately and as on date DLS NGC has nil locomotive having IR value less than one mega ohm. Nomex sheet (Insulating sheet) is being provided in all rotating machine. For better insulation & IR value.
- i. On all MEP locos, the conduit of the Traction motor speed sensors & Air dryer, along the car body is checked to eliminate the power ground problem occurring due to tube damages.
- j. A cylinder head cleaning tank has been fabricated with heating elements and it is working on base principle of cleaning and has been very useful to clean the cylinder heads & further improve its reliability.
- k. Under truck section has developed a spring testing stand in house & ended its dependence on NBQ workshop for the same thus reducing lead time in testing & also increasing reliability by closely monitoring testing & ensuring only appropriate spring is used for overhauled bogie.
- l. The Heavy Component Repair/Mech & Heavy Component Repair/Elect. sections have since Jan'15 converted their overhauling practices into assembly line pattern to improve efficiency & maximize utilization of space.
- m. Revamping of information cell to ensure entry of all loco related relevant information for timely retrieval and paper analysis to take corrective action