RAILWAY : SOUTH WESTERN RAILWAY DIESEL LOCO SHED : KRISHNARAJAPURAM

I **BRIEF HISTORY**



Administrative Office -FRONT VIEW



SHED VIEW



LOCO COLOUR SCHEME

1. **Year of establishment: 1983**
2. **Road No./type of the first loco homed in shed: WDM2**
3. **Details of any Heritage locos in shed on pedestal or otherwise:-**



Silver Jubilee Monument unveiled by Sri Praveen Kumar GM/SW Railway to Commemorate the Silver Jubilee celebrations During 2008

4. **ISO Certification year**

   9002:1994 :- November 2000

   9001:2000. : November 2003

5. **Type wise loco Holding**

WDM2	WDS6	WDM3A	WDG3A	WDP4	WDP4B	Total
28	4	28	38	36	7	141

Effective Holding

WDM2	WDM3A	WDG3A	WDP4	WDP4B	Total
17	28	38	34	7	124

6. **Maximum Holding (year/No: of Locos):- May 2011/144**
7. **Present Loco Link :- 87 Loco**
8. **Homing capacity :- 150**
9. **Augmentation Plans**

   Proposal for augmentation of Diesel Loco Shed to hold 100% WDP4/WDG4 locos has been submitted under PWP 2012-13

10. **Other history (Not more than 4 Lines)**

    Diesel Loco shed KJM is known for pioneering efforts in the field of Diesel Loco maintenance and has always been the preferred shed for Important trials being carried out by DLW and RDSO. This shed has been assessed as the best Diesel Loco Shed in Southern Railway for the year1996-1997. KJM is the First Diesel shed in Indian Railway to hold WDP4 along with ALCO Locos. The greatest achievement of the Shed has been a successful migration to maintenance of the state-of-the-art microprocessor–controlled locomotives from M/S General Motors, USA (WDP 4 locomotives). From Old ALCO-design locomotives.

II Vital Statistics

1. **Sanctioned Strength :- 753**
2. **On Roll Strength :- 653**
3. **No: of Officers :- 5**
4. **No: of Supervisors :- 56**
5. **Total Area :- 98540 Sq metre**
6. **Covered area :- 11080 Sq metre**
7. **Percentage of staff housed Railway Quarters :- 28.2%**
8. **Power Consumption /yea :-**
9. **Water Consumption /Day :- 210 KL**
10. **Educational Profile of Staff**

Up to 8th	8th	10th pass	10-12th	ITI	Diploma	Graduate

11. **Age Profile of Staff**

<30 Years	30-40	41-50	51-55	56-60

III Performance parameters

1. **Specific Fuel Consumption**

Fright	Pass
2.83	4.36

2. **Lube oil consumption per 100 EKMS:- 2.29 (Alco:- 1.85, EMD 3.09)**
3. **Shed Consumption of fuel /Month :- 8744542 Lts**
4. **KMS earned by shed Locos /Month :- 1870331**

IV Any Important Innovations

SlNo	Name of the Innovation	Short Description
1	**Vigilance Control Device**	In a major break through KJM is the first shed to develop an Electronic Vigilance Control Device (VCD) for drivers.
2	**LWS modification incorporation in Medha version 3**	There were plenty of LWS malfunctioning cases resulting in engine shutdowns enroute. Based upon our suggestion M/s Medha has incorporated water pressure sensor to the Microprocessor control System so that the loco can be shutdown when water pump is failed and **this** could avoid consequential damages to the engine
3	**TM Speed Sensor / Isolation Switch**	The traction motor sensor in WDP_4 loco can not be disabled through EM 2000 menu in case the power supply gets shorted in the sensor. To over come this issue, the shed has provided TM Speed Sensor Isolation Switch in series with 15V power supply positive side so as to disconnect the power supply to the sensor in case it is not possible to isolate through EM 2000 menu.
4	**GOLD (Guided for optimized Locomotive Driving) System**	GOLD is a advisory system for loco pilots which aims to obtain fuel efficient driving. It guides the loco driver in real time with TFT displays & achieves the best fuel consumption pattern, eliminating variations due to individual driving habits. GOLD system takes the traffic profile (gradients, curvatures, speed limit etc) and computes fuel optimal speed profile. The two TFT LED based touch screens acts as an interface to the loco pilots and this system provides all the relevant information to the LP on the optimal driving.. The trials are encouraging with the initial fuel savings of around 4%.

5	**Inventory management software based on ORACLE RDBMS**	The shed has developed/implemented the Diesel Shed Maintenance management and Inventory management softwar based on ORACLE RDBMS. All the maintenance sections, materia management section, inventory management section and office are totally networked through LAN to facilitate electronic storag of data, processing and generating maintenance information syste
6	**Laser guided Extension shaft alignment Block**	Extension shaft wobbling cases are a perennial problem in all ALCO design locomotives... This shed has developed and fabricated an alignment block to find out misalignment, this block is used in conjunction with a laser sight both horizontally and vertically, in such cases the ECC base plate can be machined to reduce the height or shims can be added to increase the height and the base plate can be adjusted horizontally to perfectly align the shaft centres.
7	**Piston Insert Sleeve for WDP4 Locomotives**	This Piston Insert Sleeve made in shed, enables inserting the assembled Piston through bottom of the Liner and is very useful to changing pistons without disturbing the cylinder head and liner joint.
8	**WDP4 Compressor loading and Unloading arrangement**	The Compressor in WDP4 locomotives is having very limited access to remove the compressor for maintenance. The compressor door is modified to facilitate movement of compressor from its bed to the maintenance bay. By lifting the compressor in its position using the chain pulley arrangement, 4 rollers with stud is mounted on the base mounting hole of the compressor to facilitate the travel of compressor on the channel located from the compressor base to the maintenance bay and back
9	**Modified Water Pump shaft without impeller sleeve for ALCO locomotives:**	To eliminate working out of impeller sleeve, the design was modified similar to the water pump of WDP4 locos, which has zero failure on account of impeller working out from the shaft.
10	**Bearing Removal Fixture For: For EMD Traction Alternator:**	The shed had developed the fixtures for extracting Slip Rings with Hub, Shrink-on-ring and for Bearing fitting & renewal In EMD Traction Alternator All these fixtures have been made to work in conjunction with a 10000 psi hydraulic jack and 40000 psi hydraulic pump.