

Knowledge Centre- Defence Audit

Group VII

Working of Army Base Workshop

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Presented on 06-04-2019



WORKING OF ARMY BASE WORKSHOP

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The Army base workshop (ABW)



- Responsible for major repairs and overhaul of weapons, vehicles and equipment.
- To ensure battle worthiness of Indian Army at all the time.
- Equipment in Zero Hour Zero Kilometer.

There are 8 army base workshops:-

1. 505 ABW Delhi
2. 506 ABW Jabalpur(MP)
3. 507 ABW Kankinara (WB)
4. 508 ABW Allahabad (UP)
5. 509 ABW Agra (UP)
6. 510 ABW Meerut (UP)
7. 512 ABW Pune (MH)
8. 515 ABW Bengaluru (KR)

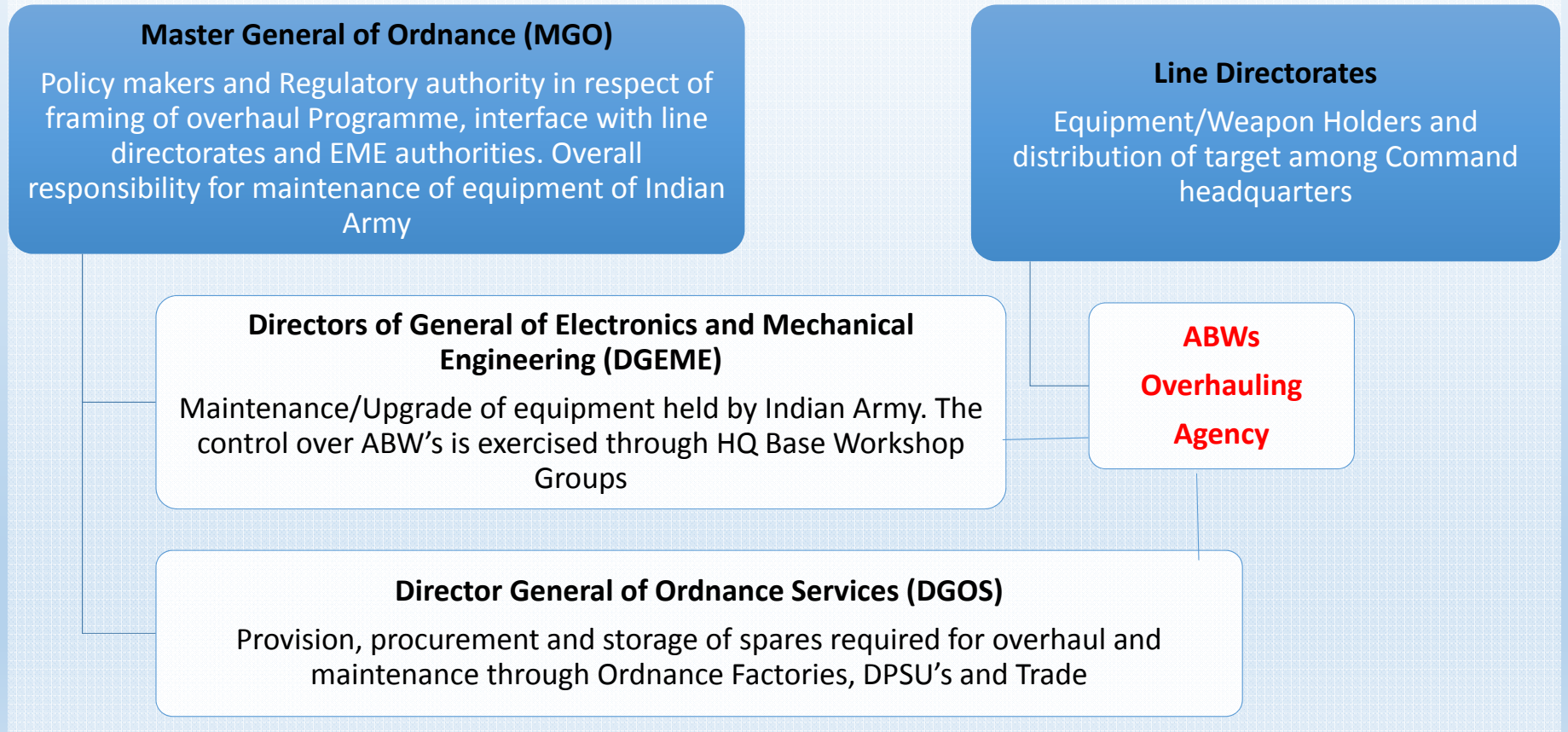




सत्यमेव जयते



Organizational Structure



Classes of Vehicles

Class A		Class B
Major Fighting Vehicles		All Supporting military land vehicles
Armoured Fighting Vehicles (AFV), Infantry Combat Vehicles (ICV), Armoured Recovery Vehicles (ARV), Snow Vehicles		Tucks, Buses, Gypsys Cars and Jeeps
Vehicles	Features	Scania, Tatra, Kraz
Tank T-90 (2002)	the main stay of Armoured Corps	
MBT Arjun (2004)	An indigenously developed Tank with 120 mm rifled bore gun. Critical in NBC war scenario	
Tank T-72 (1979)	Main Tank of the Army. Fitted with 780 HP super charge engine and 125mm smooth bore gun	
BMP-II (1985)	an Infantry Combat Vehicle (ICV) with amphibious capabilities and high degree of mobility and provides additional safety to Infantry soldiers	
ARV WZT-2	recovery vehicle for Tank T-55 and its variants	

Ever Observed Number Plates Of Military Vehicles?



- upward pointing arrow followed by the last two digits of the year
- The next is the base code, followed by the serial number/vehicle number
- Last Alphabet: Class
- Star-Rank of Officer



Audit Design Matrix

Audit Objective 1: Whether the ABWs were able to fulfil their role economically, efficiently and effectively?

Audit Objective 2: Whether infrastructure available at the ABWs was adequate and modernized timely?

Audit Question	Audit Criteria	Audit Evidence	Data Collection Methodology
<ul style="list-style-type: none"> Whether was there any Backlog of overhaul of equipment? Whether the overhaul targets were achieved by ABWs? Whether the testing facilities were available at ABWs? Whether the long range perspective plan was prepared by ABWs? Whether the creation of overhaul facilities and induction of new equipment was done timely? Whether the ABWs were modernized from time to time? 	<p>Army Base Workshop Procedure.</p> <ul style="list-style-type: none"> Five Year Repair Programme framed by MGOs Branch at Army Headquarters. Induction Pattern and Overhaul Cycle of the equipment inducted in Army. Instructions, Standard Operating Procedures (SOPs), letters issued by DG EME, DGOS, HQ BWG. Special Provision Review Directives, Technical Instructions, and Issue Procedure framed by DGOS for provisioning of spares. Overhaul scales for spares framed by DGEME for overhaul of the equipment. 	<ul style="list-style-type: none"> Records Of All selected ABWs Physical observations of workshops 	<ul style="list-style-type: none"> Entry Conference with Ministry of Defence Collection of data through document analysis, response to audit queries, questionnaires, joint Physical Verifications, joint collection of samples and photographic evidence User feedback on overhauled equipment
		<div style="background-color: #006400; color: white; border-radius: 50%; padding: 10px; display: inline-block;"> <p>Sample 5 out of 8 (New Delhi, Agra, Meerut Kirkee, Banglore)</p> </div>	<div style="background-color: #006400; color: white; border-radius: 50%; padding: 10px; display: inline-block;"> <p>Period 2010-11 to 2015-16</p> </div>

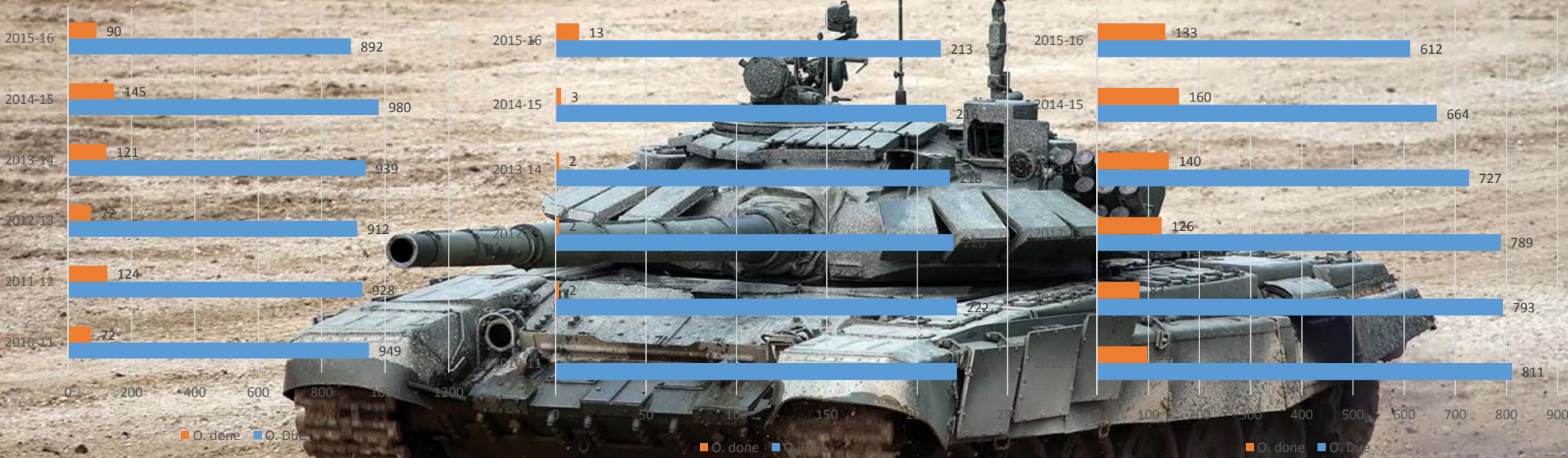
Audit Findings

Backlog of overhaul of important class 'A' equipment

BMP-II and IIK

ARV WZT-2

Tank T-72



Non-achievement of overhaul targets

- At ABW-New Delhi, ranged between 60 to 83 per cent
- At ABW-Kirkee, ranging from 13 to 62 per cent
- At ABW-Agra, 50 per cent in respect of Radar Fly Catcher and up to 60 per cent in respect of Radar TC Reporter
- ABW-Meerut, HRV AV15 during 2014-15 was merely 10 per cent of the original targets

Inordinate delay in overhaul

BMPs

- Norm of 153 days
- Delayed up to 1512 days

UTD-20 Engine for BMP

- Norm of 30 days
- Delayed up to 308 days

Tanks T-72

- Norm of 144 days
- Delayed up to 836 days

Non-availability of testing facilities at the ABWs

- ABWs did not have the requisite test facility
- The BMPs and Tanks T-72 overhauled by ABWs were issued to user units without test firing

Non-existence of cost accounting system

- Guidelines 30 per cent of the cost of new vehicle/engine
- No cost accounting mechanism was in place in the ABWs to ensure the cost effectiveness of the repairs and overhauls

Delay in Modernization of ABWs

- As per the 11th Army Plan (2007-2012)– Proposal Costing Rs. 1781 crores
- MGO proposed to prepare PDR for all 5 ABWs till Dec.2012
- But final DPR by all submitted Sep. 2016
- May 2016, MGO stated to complete the modernisation work till 2021-22

Key Recommendations

- Ministry should formulate the overhaul policy for Class 'B' vehicles.
- Original Equipment Manufacturer(OEM) prescribed test facility should be installed at the time of setting up of infrastructure for overhaul.
- For augmenting availability of spares, constraints in the availability of spare need to be identified and process of making available spares through manufacturing or procurement need to be streamlined.
- Army Headquarters should lay out a time bound action plan for modernization of ABWs to overcome the problems due to vintage.

Key Recommendation

- Ministry should expedite the Component Level Repair (CLR) project for supporting Tank T-90 with repair facilities.
- Quality Index of Overhauled BMP tanks despite improvement during 2015-16 still remains low and needs to be further improved.
- For overhaul of vision devices, Ministry should review the scope and implementation of Project Tulip for establishment of additional facilities at 512 ABW.
- Cost accounting system should be introduced in the workshops to ensure optimum utilization of resources viz. man-power, machines and materials and to assess the cost effectiveness of overhauls.

Conclusion

- The delayed overhaul, compounded by delay in issue of release orders and dispatch of the overhauled equipment to the unit.
- Quality Index was far below the prescribed norms.
- Lack of tests facilities and test equipments.
- No Long Range Perspective Plan for creation of infrastructure.
- Impact on the operational readiness
- Present plant and machinery at ABWs was technologically inadequate.
- Non availability of spares in adequate range.

Current scenario

- Private firms to get entry into ABWs.
- Privatisation is based on the recommendations of Lt. Gen. DB Shekatkar (Retd.) Committee.
- Dates set to privatise 4 ABWs by April 2019.
- GOCO Model – Govt. Owned Contractor Operated.
- 12000 employees across 8 ABWs – 75% civilian staff.
- Issues and concerns related to privatisation.
- Present plant and machinery
- Collaborate with Original equipment manufacturer (OEM)

References

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Thanks











