



# **SOUTH EASTERN RAILWAY**

## **REVIEW OF STAFF STRENGTH IN THE PRODUCTION SHOP OF KHARAGPUR WORKSHOP.**



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**STUDY NO. EFF/898**

## **SYNOPSIS**

<b>1.</b>	Name of the work study	Review of staff strength in the Production shop of KGP Workshop
<b>2.</b>	Terms of reference	The study has been taken in the Annual Programme for the year 2018-19 as per the approval of the competent authority.
<b>3.</b>	Aim	To make a comparative study of the present sanctioned staff strength and the available workload of the various units under production shop
<b>4.</b>	Projected manpower re-deployment/ surrender.	Surrender- <b>70</b> posts,
<b>5.</b>	Anticipated/projected savings	Rs <b>532</b> lakhs per annum (Approx)
<b>6.</b>	No of recommendations made	Two (2)
<b>7.</b>	Critical analysis & observations	Analysis done on the basis of field assessment made by the study team for conducting the study
<b>8.</b>	Brief note on recommendations	<b><u>Rec-I</u> - The existing 70 vacant posts from Shop No. 8 (Tool Room), 9 (Brass Shop) and 11 (Fitting Shop) to be immediately surrendered ensuring that the promotional aspect are not affected.</b> <b><u>Rec-II</u> - Steps to be taken to wound up the PCO's related to Shop No. 1,2,22,3,5 &amp; 8 and merge with 13,7 &amp; 35. The excess staff of PCO's to be sent to their parent department accordingly.</b>
<b>9.</b>	Department concerned	Mechanical.

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## **CHAPTER - I**

### **1.0. INTRODUCTION**

Indian Railway is rapidly proceeding towards modernization in all fields. The need of the day is to devote basically on the transportation part. Kharagpur Workshops was envisaged with a view to maintain the different types of rolling stock. During the initial stage of establishment of the Workshop, the different types of materials required for routine maintenance purposes were not readily available in the local markets. Hence, different ancillary shops like foundry, smithy, machine, millwright etc. were established as per the then requirement for supplying, maintenance and repair/ refurbishing of the different spare parts and components required for day to day maintenance.

The modern trend is to increase the speed of the Rolling Stock which simultaneously requires higher braking power. At the same time, different casting items being manufactured are presently available in trade and that too in a lesser cost than the shop costing. Side by side, there is a critical requirement for reducing the material cost/production cost/pilferage(especially of non-ferrous items) through induction of composite materials and reduction of production costs. Certain composite materials have replaced the conventional materials due to high strength to weight ratio, superior physical properties/ performance and finally for cost reduction.

In view of the above, composite brake blocks have been introduced in place of Cast- iron brake blocks, Roller bearings in place of plain bearings, Helical springs in place of LB springs. RDSO has also identified a number of parts for replacement with composites that include FRP loco gear case, axle box cover, brake gear bushes, toilet modules, luggage racks, canopy end of EMU/DEMU coaches, sliding/flush doors etc.

The average repair cost per VU of the shop is directly proportion to the manufacturing cost of spare parts and rolling-stock components in the finishing shop and process shop.

The review on the requirement of manpower has been taken up considering the procurement of materials through trade resulting in closure of some shop and also merging of one or two shop with the other one.

## **CHAPTER – II**

### **2.0 STAFF STRENGTH**

The staff strength of the shops which are closed since long is as under:

Shop No	Trade	Design	S/Strength	On-Roll	Vacancy
1 & 2	Moulder	MCM	15	15	00
		Gr-I	30	29	01
		Helper	01	01	00
	Furnishman	MCM	07	07	00
		Gr-I	09	03	06
22	P/Maker	MCM	02	02	00
		Gr-I	02	02	00
03	W/Metal	MCM	02	02	00
		Gr-I	04	01	03
05	Black Smith	MCM	10	10	00
		Gr-I	06	06	00
		Gr-III	00	01	(+)01
		Helper	01	01	00
	Spring Maker	MCM	09	08	01
		Gr-I	15	06	09
	Fitter(Mech)	Gr-I	06	00	06
		Gr-II	01	00	01
		Gr-III	01	00	01
	Machinist	MCM	02	02	00
08	All Trd	MCM	01	01	00
		MCM	15	13	02
		Gr-I	29	17	12
		Gr-II	05	00	05
		Gr-III	08	00	08
09	Turner	Helper	02	01	01
		MCM	07	04	03
		Gr-I	06	00	06
		Helper	06	03	03

Shop No	Trade	Design	S/Strength	On-Roll	Vacancy
09	Fitter	MCM	05	06	(+)01
		Gr-I	10	06	04
		Gr-II	01	01	00
		Gr-III	04	04	00
	M/C	MCM	03	04	(+)01
		Gr-I	14	07	07
		Gr-II	04	01	03
		Gr-III	05	02	03
11	Fitter	MCM	10	10	00
		Gr-I	19	16	03
		Gr-II	03	00	03
		Gr-III	06	00	06
		Helper	04	03	01

## **CHAPTER – III**

### **3.0 EXISTING SYSTEM OF WORKING**

3.1 The production shop consists of the following units viz. Smithy (repair of LB Springs), Machine (Machining and finishing of components), Plate (Plate work and fabrication), Wheel (Repair of wheel sets), Loco Bogie (Repair of diesel and electric bogies). In addition, this section has been entrusted with the incentive & inspection of the different shops.

3.2 **Previous activities of Foundry Shop No.1,2 & 3 :** The iron foundry earlier used to manufacture small CI rollers, CI chill body set, Brake set, Bevel pinion for BOXN(CI), BD valve for BOXN, Gate assembly, BD valve locking bush, CI cow catcher for EMU, Distance piece of top roller, Piston head, Piston valve, White metalling of suspension bearing, De-mantling of white metal, Suspension bearing, all round bar, Metalling of axle bearing bush, Top & Bottom bush, Roller carriage bush, Bronze oil seal turbine end, Thrust bearing, ICF bush, Diesel loco/ Electric loco & Shatabdi coach models, PB solid bars of different sizes, Steel shell suspension bearings & Bronze bearing for H/shaft etc.

Presently these shops have been totally closed and merged with Heat Treatment Shop No 13. The existing staff on roll are now engaged in heat treatment shop.

3.3 **Previous activities of Smithy Shop No. 5:** Hanger block forging, ICH & EMU draft gear, Side bearer, All LB spring buckles, LB spring key manufacturing, Chainless cutter, Drop stamp item, Buffer plug, all types of buckles, Ball pin hammers, Offset machine items like rivets & pins, Buffer spindles, NL bogie pins, Hexagonal bolts, LB springs, 9 plated, 10 plated, 20 plated (crane springs), Tower wagon springs, Coiled springs(ICF) were being manufactured and tested here.

Presently this shop has been totally closed and merged with Heat Treatment Shop No 13. The existing staff on- roll are now engaged in heat treatment shop.

3.4 **Previous activities of Tool Room No. 8 :** The Tool room was previously required for Sharpening and Reconditioning of Tool bits, Grinding mill and Nozzle of blow torch.

Presently this shop has been totally closed and merged with Heat Treatment Shop No 13. The existing staff on- roll are now engaged in heat treatment shop. The activity of this shop has been closed because the entire work of sharpening and reconditioning has been outsourced through AMC.

- 3.5 **Previous activities of Brass Shop No. 9:** The work of brass shop was finishing of all brass items such as bush, bearing etc. .The work of this shop has now been totally closed and there is no activities related to this shop that are to be carried out. This shop has presently been merged with Shop No. 7. The existing staff on-roll are now engaged in Machine shop No 7.
- 3.6 **Previous activities of Fitting Shop No. 11:** The activity of fitting shop was to manufacture all those items which are occasionally required for repair works. Since this job is not on a regular basis the shop has been closed and merged with Bogie shop No. 35. The existing staff on- roll are now engaged in Bogie shop No. 35.



## **CHAPTER-IV**

### **4.0 CRITICAL ANALYSIS WITH RECOMMENDATIONS :**

- 4.1** The production of the Iron as well as Brass Foundry is Nil due to closure of the foundry. The major portion of the smithy shop has also been wound up due to closure of activities and presently Shop No. 1,2,22,3,5 & 8 have been merged with heat Treatment Shop No. 13 and the existing on-roll staff are also utilized in this shop. Brass shop No. 9 has been merged with Machine Shop No. 7 and Fitting shop No. 11 has been merged with Bogie Shop No. 35. Their incentive of 33.1/3 % is calculated under their allotted load centre. However the existing man on roll should continue there work as they are doing now. Permanent re deployment in this case is not possible due to policy matter. As and when these posts get vacant on their retirement or else these may be surrendered. Due to closure of activities and resultant merging with other shops there is no point in keeping the vacant posts any longer. As such all the vacant posts to be surrendered outright

**Recommendation – I :** The existing 70 vacant posts from shop No. 8 (Tool Room), 9 (Brass Shop) and 11 (Fitting Shop) to be immediately surrendered ensuring that the promotional aspect are not affected.

- 4.2** However due to closure of activities and subsequent merger of shops the requirement of PCO's of those load centre's have also come down. As such steps to be taken to wound up the PCO's related to Shop No. 1,2,22,3,5 & 8 and merge with 13,7 & 35. The excess staff of PCO's to be sent to their parent department accordingly.

**Recommendation – II :** Steps to be taken to wound up the PCO's related to Shop No. 1,2,22,3,5 & 8 and merge with 13,7 & 35. The excess staff of PCO's to be sent to their parent department accordingly.

## **CHAPTER-V**

### **5.0 Financial Evaluation**

In reference to the recommendations made in the study report the financial evaluation on the basis of surrender of **70** post is as under:-

Sl	Desgn	No. of posts	Level	pay	Avg. Pay	DA @ 7%	Monthly cost per staff	Total cost per month
1	Group 'C'	31	6	35400-112400	73900	5173	79073	2451263
		11	5	29200-92300	60750	4253	65003	715033
		17	3	21700-69100	45400	3175	48575	825775
2	Group 'D'	11	1	18000-56900	37450	2622	40072	440792
<b>TOTAL</b>		<b>70</b>						<b>4432863</b>

The annual savings on account of surrender of **70** 'vacant' posts = Rs. 44,32,863/- x 12  
= **Rs.531,94,356 /-**  
Say **532 lakhs per annum approx.**