



**Office of the  
Addl. General Manager  
South Eastern Railway,**  
11, Garden Reach Road, Kolkata-43  
☎ 033-24504606, 24397813

No. EFF/916/1/131

Dated : 27.01.2020.

To  
**The Chief Works Manager,**  
South Eastern Railway,  
Kharagpur Work Shop,  
**KHARAGPUR.**


Sub : Review of staff strength in the different units under Dy.CME(Prod)/KGP Workshop (for the remaining shops).

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The Work Study Cell in Headquarters Office has conducted a further Review of Staff Strength in the different units under Dy.CME(Production)/ KGP Workshop

It has now been recommended in the study report to surrender a total of '101' vacant posts from those units which have either been closed or have been merged with some other unit due to gross reduction in work load or due to consequential reduction of workload. A copy of the report is enclosed for your kind perusal.

It is requested to examine the report for in-principle acceptance and implementation.

Encl : As above.

  
(A.N. Mishra)  
Dy. Secy. to AGM/GRC

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Copy to : PCME / GRC for kind information please.

Copy to : Dy.CME(Prod) /KGP W/s & WPO/KGP W/s for necessary action pls.



# **SOUTH EASTERN RAILWAY**

## **REVIEW OF STAFF STRENGTH**

### **IN THE UNITS UNDER**

### **DY.CME(PROD)/ KGP W/s.**

**(for the remaining shops)**



**EFFICIENCY CELL,  
GARDEN REACH, KOLKATA – 700 043.**

**STUDY NO. EFF/916/1**

## **SYNOPSIS**

<b>1.</b>	Name of the work study	Review of the Staff strength in the units under Dy.CME(Production) consequent to closure with consequent merger of shops and outsourcing of activities in KGP workshop for the remaining shops.
<b>2.</b>	Terms of reference	Discussions with supervisors of Production Shop during finalization of the study No EFF/916.
<b>3.</b>	Aim	To make a comparative study of the present sanctioned staff strength and the available workload as well as associated factors at the various units under Production shop due to closure/merger of shops as revealed during finalization of a similar study at the same unit.
<b>4.</b>	Projected manpower re-deployment/ surrender.	Surrender- <b>101</b> posts,
<b>5.</b>	Anticipated/projected savings	Rs. 477 Lakhs per annum (approx)
<b>6.</b>	No of recommendations made	One.
<b>7.</b>	Critical analysis & observations	Analysis done on the basis of actual field assessment made by the study team for conducting the study.
<b>8.</b>	Brief note on recommendations	<b><u>Rec-I</u> – To surrender 101 vacant posts with immediate effect, considering the closure and subsequent merger of shops and outsourcing of activities.</b>
<b>9.</b>	Department concerned	Mechanical.

# **C O N T E N T S**

<b>Chapter</b>	<b>Description</b>	<b>Page No.</b>
<b>I</b>	<b>Introduction</b>	<b>1</b>
<b>II</b>	<b>Staff strength</b>	<b>2</b>
<b>III</b>	<b>Existing system of working</b>	<b>3-5</b>
<b>IV</b>	<b>Critical analysis</b>	<b>6</b>
<b>V</b>	<b>Recommendations</b>	<b>7</b>
<b>VI</b>	<b>Financial evaluation</b>	<b>8</b>

## **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 at 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 proportional to the manufacturing cost of spare parts and rolling-stock components in the finishing shop and process shop.

Due to closure of some shops, the men-on-roll have been adjusted in other shops along with merger. The introduction of remote controlled operation of overhead cranes has resulted in decrease in the requirement of crane drivers. During finalization of a study on the same subject (EFF/916), it was revealed that merger of shops has resulted in further surplus of staff as recommended in the previous study. Basing on this issue, the present study has been undertaken.

## CHAPTER – II

### 2.0 STAFF STRENGTH

2.1 The overall staff strength of Production Shop (Loco) is as follows:-

Sanction , Actual and Vacancy Position of <b>LOCO</b> under Dy.CME (P)/KGP(WS) <b>AS ON 01.01.2020</b>							
S.N.	Designation	Category	Group	GP/ Level	Sanction	Actual	Vacancy
1	Sr. Sec. Engr.	Suprv.	C	4600/L 7	99	37	62
2	Jr. Engr.	Suprv.	C	4200/L 6	53	1	52
<b>Total</b>					<b>152</b>	<b>38</b>	<b>114</b>
3	Sr. Tech.	Artisan	C	4200/L 6	262	237	25
4	Tech. Gr-I	Artisan	C	2800/L 5	405	234	171
5	Tech. Gr-II	Artisan	C	2400/L 4	55	74	-19
6	Tech. Gr-III	Artisan	C	1900/L 2	123	75	48
7	Shunter	Artisan	C	2400/L 4	10	0	10
8	Assistant Workshop	Artisan	C	1800/L 1	130	81	49
<b>Total</b>					<b>985</b>	<b>701</b>	<b>284</b>
9	Assistant Workshop	Artisan	D	<1800	0	2	-2
<b>Total</b>					<b>0</b>	<b>2</b>	<b>-2</b>
<b>Grand Total</b>					<b>1137</b>	<b>741</b>	<b>396</b>

2.2 The staff strength of only the Technicians Gr-I in the Production Shop which have been taken up for the purpose of this study are as follows :

Designation	Level	Sanct Strnth	On roll	Vacancy	Shops Nos. taken up for the purpose of this study
<b>Loco</b>					
Tech – I (Fitter)	L-5	232	139	93	Shop No. 7, 14 & 35
Tech – I (Welder)	L-5	67	36	31	
Tech-I (Machinist)	L-5	91	59	32	Shop No. 7 & 14.
Tech-I (All trades)	L-5	15	0	15	Shop No. 13
<b>Total</b>		<b>405</b>	<b>234</b>	<b>171</b>	
<b>M&amp;P</b>					
Tech – I (Fitter)	L-5	103	65	38	Shop No. 10
Tech-I (Crane Drv)	L-5	54	50	4	Shop No. 16
Tech-I (Machinist)	L-5	19	16	3	Shop No. 10
Tech-I (DMM)	L-5	50	37	13	Shop No. 16
Tech-I (Electrician)	L-5	6	1	5	Shop No. 16
<b>Total</b>		<b>232</b>	<b>169</b>	<b>63</b>	
<b>PCO</b>					
Tech-I (MEA)	L-5	9	8	1	Shop No. 4
<b>Total</b>		<b>9</b>	<b>8</b>	<b>1</b>	
		<b>646</b>	<b>411</b>	<b>235</b>	

## **CHAPTER – III**

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

**3.1** The Production shop consists of varied units viz. Smithy (repair of LB/Helical Springs, forging of shop requisitions), Machine (Machining and finishing of components), Plate (Plate work and fabrication), Wheel (Repair of wheel sets), Loco Bogie (Repair of diesel and electric bogies), etc. The PCO has been entrusted with the incentive & inspection of the out-turn of all the shops. The Tool Room fabricates and repairs the tools required for day to day use by the Machine shop and also in small quantities requisitioned by other shops. Brass Shop is involved in the finishing of bearings required by the Diesel and Electric Loco POH Shops. The Loco Bogie Shop has been segregated from the Loco shops and involved in testing and certifying fitness of the bogie. Millwright shop is entrusted with the daily maintenance and running of all the M&P items. The M&P unit is entrusted with the procurement, installation and maintenance of the M&P items of the workshops, POH of Rail cranes & Tower wagons as per availability. Maintenance of around 1296 M&P items, 55 Transport vehicles, 48 Fork lifters, 5 EOT cranes, 16 compressors, Weighbridge & 5 Traversers are carried out by this unit. Mechanical Transport Section arranges the requirement by the different shops and maintenance for fork lifters, listers, Battery operated trucks, lorry trucks, road cranes etc.

**3.2 Previous activities of Foundry Shop :** The Iron & Brass foundry shop 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 shop activities have been totally closed and the men-on-roll merged with Heat Treatment Shop No 13.

**3.3 Previous activities of Smithy Shop :** 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.

The existing men-on-roll are now amalgamated with the Heat Treatment shop No.13.

- 3.4 Previous activities of Tool Room:** 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 Scheduling Shop No. 4 :** The staff of this section fetches the daily store items required for production of the different shops. Their involvement is specifically of material movement as per daily requisitions.
- 3.6 Machine Shop No. 7 :** This section manufactures components as per supplied drawings as requisitioned by the other shops.
- 3.7 Previous activities of Brass Shop :** The Brass shop was finishing 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. The existing staff on-roll are now engaged in Machine shop.
- 3.8 Plate Shop No. 14 :** This section manufactures different templates and other items as per drawings required for POH works from MS Plate through fabrication.
- 3.9 Loco Bogie Shop No. 35 :** The Loco Bogie Shop has been segregated from the Loco shops and involved in testing and certifying fitness of the bogie dismantled during POH.
- 3.10 Millwright Shop No. 10:** The Technicians in the Millwright shop are engaged in maintaining all the Machinery and Tool & Plants items. The technicians are also operating/driving the different equipments, machinery and motor vehicles like fork lifter, lister, Over head cranes, etc. Due to AMC of M&P Items, outsourcing of activities and closure of shops, the requirement of this group of technicians has diminished to some extent.
- 3.11 Mechanical Transport Shop No. 16 :** The Mechanical Transport Section fulfills the requirement of different shops for fork lifters, listers, Battery operated trucks, lorry trucks, road cranes etc. and the daily routine maintenance of these equipments.
- 3.12 Previous activities of Fitting Shop :** 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.



- 3.13 Production Control Organization :** The Stage Inspectors in the PCO are entrusted with the inspection and preparation of job sheets of the jobs at different Load centers. Due to outsourcing of activities and closure of shops, the requirement of stage inspectors in the PCO has automatically reduced. Scheduling Shop No. 4 is controlled by the PCO.

## **CHAPTER-IV**

### **4.0 CRITICAL ANALYSIS :**

- 4.1** The production of the Iron & Brass Foundry is Nil due to closure of the foundry. A major portion of the Smithy shop has also been wound up due to closure of activities and change in working of the associated shops. and presently these Shops have been merged with Heat Treatment Shop No. 13 and the existing on-roll staff are also utilized in this shop. The Tool room was previously required for Sharpening and Reconditioning of Tool bits, Grinding mill and Nozzle of blow torch. These activities have also diminished to a great extent. The staff strength of the Foundry and Smithy Shop have been retained in a separate block as “All trades” till their cadre is adjusted elsewhere. These **15 ‘vacant’** posts of Shop-13 to be surrendered outright as no posting against these vacancies is feasible.
- 4.2** Considering the present workload, the available **1 ‘vacant’** post of Technician Gr-I (MEA) from Scheduling Shop No. 4 can be surrendered.
- 4.3** Due to winding up of Brass Shop and subsequent merger of the staff strength with Machine Shop No. 7, the **15 ‘vacant’** posts of Tech –I from the Fitter & Machinist Cadre can be surrendered.
- 4.4** Considering the present workload of Plate Shop No. 14 and Loco Bogie Shop No. 35, a total of **20 ‘vacant’** posts of Tech-I from the Fitter and Machinist cadres can be surrendered.
- 4.5** As the workload of the Millwright Shop No. 10 has diminished to some extent due to varied factors, a total of **32 ‘vacant’** posts of Technicians-I from the Fitter and Machinist cadre can be surrendered.
- 4.6** Considering the workload, an additional **13 ‘vacant’** posts from Crane Driver and DMM cadre can also be surrendered.
- 4.7** In the Mechanical Transport Shop No.16, there is no requirement of a separate cadre of Electricians. As such the available **5 ‘vacant’** posts of Electricians to be surrendered outright.

## **CHAPTER-V**

### **5.0 RECOMMENDATIONS :**

In view of the above, it has been proposed to surrender the following ‘vacant’ posts from the different shops without hampering the day to day out-turn and protecting promotional interests of the staff concerned.

<b>Designation</b>	<b>Vacancy position</b>	<b>Posts proposed for surrender</b>
<b>Loco</b>		
Tech – I (Fitter)	93	22
Tech-I (Machinist)	32	13
Tech-I (All trades)	15	15
<b>M&amp;P</b>		
Tech – I (Fitter)	38	30
Tech-I (Crane Drv)	4	3
Tech–I (Machinist)	3	2
Tech-I (DMM)	13	10
Tech- I (Electrician)	5	5
<b>PCO</b>		
Tech-I (MEA)	1	1
<b>Total</b>		<b>101</b>

**5.1 Recommendation-I : These 101 ‘vacant’ posts of Tech-I as proposed above may be immediately surrendered.**

## **CHAPTER-VI**

### **6.0 Financial Evaluation**

In reference to the recommendations made in the study report the financial evaluation on the basis of surrender of **101** 'vacant' posts is as under:-

<b>Sl</b>	<b>Desgn</b>	<b>No. of posts</b>	<b>Level</b>	<b>Pay Band (1 to 10)</b>	<b>Avg. Pay</b>	<b>DA @ 17%</b>	<b>Monthly cost per staff</b>	<b>Total cost per month</b>
1	Tech-I	101	L-5	29200- 38100	33650	5721	39371	3976471
<b>TOTAL</b>		<b>101</b>						<b>3976471</b>

The annual savings on account of surrender of **101** 'vacant' posts = Rs. 3976471/- x 12  
= **Rs. 477,17,652** /-  
Say **477 lakhs per annum approx.**

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