

**Departmental Estimate of repairing of Isolator, VCB and Transformer 63 kVA, 3.3 kV  
alongwith 03 Nos. magnetic amplifier units (Hoist, crowd and swing/ propel) of EKG-5A  
shovel Sl. No. HMB-596 of Jharkhand OCP.**

Sl. No.	Description	Quantity	Rate (Rs.)	Amount (Rs.)
<b>A.</b>	<b>Repairing of isolator :</b>			
1.	Repairing of handle mechanism with new materials	01 no.		
2.	Repairing and replacement of fixed and moving contacts, insulator and Arc chute	01 set		
3.	Repairing of Tie rod and its mechanism	01 set		
4.	Supervisor: 01 person X 03 days	03 attend		
5.	HT Electrician: 02 person X 03 days	06 attend		
6.	Helper: 02 person X 03 days	06 attend		
<b>Sub Total (A)</b>				
<b>B.</b>	<b>Repairing of VCB :</b>			
1.	Replacement of vacuum interrupter bottles	03 no.		
2.	Replacement of economy resistance	01 no.		
3.	Replacement of holding coil	02 no.		
4.	Replacement of flexible connections, terminals and support insulators.	01 set		
5.	Supervisor: 01 person X 03 days	03 attend		
6.	HT Electrician: 02 person X 03 days	06 attend		
7.	Helper: 02 person X 03 days	06 attend		
<b>Sub Total (B)</b>				
<b>C.</b>	<b>Repairing of Transformer :</b>			
1.	Cost of Cu wire @Rs. 520 per kg and Less 60% scrap value, Net rate @Rs. 208 per kg	84 kg		
2.	Insulation Cost @15% of Cu cost i.e. (15% of 84kg x 520)	01 No.		
3.	Brass studs with bushings	03 no.		
4.	Supervisor: 01 person X 03 days	03 attend		
5.	HT Electrician: 02 person X 03 days	06 attend		
6.	Helper: 03 person X 03 days	09 attend		
<b>Sub Total (C)</b>				
<b>D.</b>	<b>Repairing of 03 Nos. Magnetic Amplifiers (Hoist, crowd and swing/ propel) :</b>			
1.	Replacement of main transformer coil @Rs.7000 per coil and less scrap value @Rs. 350 x 3.66kg per coil Net value @5719.00 per coil	09 nos.		
2.	Replacement of control winding	06 nos.		
3.	Replacement of choke coil	18 nos.		
4.	Replacement of main diode 40A, 1200PIV	15 nos.		
5.	Replacement of bridge unit potentiometer Kohm/ 50W	12 nos.		

6.	Replacement of pot resistance 200ohm/50W, 51ohm/50W, 1.6Kohm/50W	09 nos.	490.00	4410.00
7.	Supervisor – 01 person X 03 days	03 attend.		
8.	HT Electrician – 02 person X 03 days	06 attend.		
9.	Helper – 03 person X 03 days	09 attend.		
<b>Sub Total (D)</b>				
<b>Total (A+B+C+D)</b>				
<b>Contractor's Profit@ 10%</b>				
<b>Total estimated cost</b>				
GST @ 18% of total cost				
<b>GRAND TOTAL</b>				
<b>Round Off</b>				

Project Engineer (X)  
Jharkhand OCP

Dy. Manager (X)  
Jharkhand OCP