Name of Work:- **SERVICING OF 11 KV 525 KW ELECTRIC MOTOR NO.06 TYPE DKRJS 45/9-6 & P/F BEARING FOR KSB PUMP TYPE (SNW 600-720) INSTALLED AT K-III NEK.**

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| **Item No.** | **Qty.** | **Description of Item to be**  **Executed at Site** | **Rate** | | **Unit** | **Amount in Rupees** |
|  | **Amount**  **( in Figures)** | **Amount**  **(in Words)** |
| 1. | 01 Job | Isolate the power supply then dismantle the 11KV525 KW electric driven motor from foundation complete I all respect as per direction of E/I. |  |  | Job |  |
|  |  | **Scope of work as under:-**  \*Removal of heat exchanger system completely.  \*Removal of three Nos. terminal box (RTD) bearing upper/lower & RTD heating.  \*Removal of main connection box. |  |  |  |  |
| 2. | 01 Job | Over hauling of 11KV 525 KW Electric Motor.  **Scope of work as under**:-  \*Removal of coupling from motor shaft.  \*Initial testing and dismantling of Motor.  \*Washing/Cleaning of winding with Special Cleaning agent (CTC).  \*Drying winding at 75 C temperature  \*Testing of winding before Impregnation of.  \*Impregnation of winding with class F varnish insulation and drying.  \*Complete checking & balancing of rotor after decabonise.  \*Drying heating of motor and rotor.  \*Decarbonising and cleaning of all three phase connection lead of motor.  \*Decarbonising and cleaning of all three rotor lead i/c re-taping H.T class tape both ends points (06 Poins) heaving length 6” each.  \*Cleaning and replacement of L.T panel connector for motor heater.  \*Assembly of all parts i/c rotor motor etc.  \*Cleaning & painting of all parts  \*Static testing and painting of complete motor  \*Witness testing at site on (NON LOAD) & Operation. |  |  | Job |  |
| 3. | 01 Job | Repairing and reconditioning & polishing of bearing housing (upper side) heaving 1st o.d 315mm, 2nd o.d 250mm i.d 100mm depth 140mm complete in all respect & as per direction of E/I. |  |  | Job |  |
| 4. | 01 Job | Repair & reconditioning and polishing of lower bearing housing o.d 250mm i.d 150mm and depth 75mm complete in all respect and as per direction of E/I. |  |  |  |  |
| 5. | 01No. | Providing & fixing of bearing No.NU1024 ML in SKF brand |  |  | Each |  |

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| 6. | 01 No.  01 Job  01 Job  01 Job  02 Job  01 Job  01 Job | Providing & fixing of bearing No.QJ 324N2MAC4/R841 in SKF brand.  **Detail of Service**  Virbration analysis.  Dynamic Belancing  Service fee for laser alignment / checking  Service fee for bearing mounting/dismounting  Transportation charges of all equipments  Weight/shims/lubricants of SKF |  |  | Each  Each  Each  Each  Each  Each  Each |  |
| 7. | 28 Tubes | Repairing / Reconditioning of heat exchanger tube heaving dia 45mm with fix inner tube dia 20mm length of tube 1500mm |  |  | Each |  |
| 8. | 01 Job | Installation of electric driven motor 11KV 525 KW type DKRJS45/9-6WF complete in all respect and as per direction of E/I.  **Scope of Work as under:-**  \*Foundation preparation  \*Installation of heat exchanger system completely.  \*Installation of three Nos. terminal box (RTD winding RTD bearing upper/lower & RTD heating).  \*Installation of main connection box  \*Alignment of machine / motor by mounting breackts.  \*Final check all electric connection in the main box tightend properly.  \*Motor is connected according with the specific direction of rotation.  \*Check grease collector properly full air points and water cooling points too. |  |  | Job |  |
| 9. | 3 Kg | Providing grease LGHP 2/1 KSF brand. |  |  | Kg |  |
| 10. | 02 Job  a Job  b Job  c Job  d Job  e Job  f Job | P/F of angular contact ball bearing 7330 SKF  With following services for Pump No.6.  Vibration analysis service fee  Dynamic balancing  Lesser alignment service fee  Bearing mounting and dis mounting fee  Transportation charges  Weight /Shims/Lubricants of SKF |  |  | Job  Job  Job  Job  Job  Job  Job |  |
| 11. | 15 Kg | Grease LGMT 3/1 SKF Brand (Imported) |  |  | Kg |  |
|  |  |  |  | **TOTAL** | **Rs.** |  |

Resident Engineer

N.E.K (P&F) K-II, III

KW&SB

I/We hereby Quoted Rs..\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees

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Execution of above work and I / We hereby undertaking accept

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Signature of Contractor

With name of firm & Seal

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Contact # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Work **REPAIRING & RECONDITIONING MAINTENANCE OF NON RETURN VALVE 1000MM DIA OF PUMP SET “C” AT LOW LIFT PUMP HOUSE N.E.K (P&F) K-II PLANT.**

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| **Item No.** | **Qty.** | **Description of Item to be**  **Executed at Site** | **Rate** | | **Unit** | **Amount in Rupees** |
|  | **Amount**  **( in Figures)** | **Amount**  **(in Words)** |
| 1. | 02 Nos | Local Mfg. of valve pin from S.S solid shaft having dia 152mm length 482mm making coller having dia 133mm length 30mm other step cutting having dia 120mm, length 310mm, and last step cutting dia 108mm length 120mm making case harding on furnauce m/L as per direction of engineer incharge. |  |  | Each |  |
| 2. | 01 Job | Providing & fixing of shutter disc seat from bronze metal by casting having finished size outer 1225mm dia & inner dia 1210mm width 50mm i/c making inside “V” shape thread length 50mm as per direction of engineer incharge. |  |  | Job |  |
| 3. | 01 Job. | Providing and fixing valve body seat frame bronze metal by casting having finished size outer dia 1250mm inner dia 1185mm width 100mm i/c making “V” shape thread for fixing the seat on valve body and as per direction of engineer incharge. |  |  | Job |  |
| 4. | 02 Job | Mfg. & Fixing of pin guide cover from MS rod having dia 220mm width 65mm making under cut from one side 140mm dia width 5mm other step cutting 63mm dia width 25mm i/c making hole 8 Nos. i/c having dia 19mm making greasing point as per direction E/Incharge. |  |  | Job |  |
| 5. | One Unit | Mfg. and Fixing in valve body cermic seal (imported) having cross sectional dia 10mm, outer dia 1320mm as per direction of E/Incharge. |  |  | Each |  |
| 6. | 73 Kg. | Supply & Fixing assorted size stain less steel Nuts, Bolts & Washer (Pg=71, It=4, PB = 49). |  |  | Kg. |  |
| 7. | 04 Meter | Providing & Fixing of Oil Paper |  |  | meter |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 8. | 01 Job | Assembling of Non return valve after complete satisfactory repair of valve disc valve pin body at proper place i/c application of anti corrosive coating and sea paint as per direction of Engineer Incharge. |  |  | Job |  |
|  |  |  |  | **TOTAL** | **Rs.** |  |

Resident Engineer

N.E.K (P&F) K-II, III

KW&SB

I/We hereby Quoted Rs..\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees

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Signature of Contractor

With name of firm & Seal

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Contact # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Work **REPAIRING & RECONDITIONING MAINTENANCE OF NON RETURN VALVE 800MM DIA OF PUMP SET “D” AT HIGH LIFT PUMP HOUSE N.E.K (P&F) K-II PLANT.**

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| **Item No.** | **Qty.** | **Description of Item to be**  **Executed at Site** | **Rate** | | **Unit** | **Amount in Rupees** |
|  | **Amount**  **( in Figures)** | **Amount**  **(in Words)** |
| 1. | 01 Job | Repair & Reconditioning of shutters valve disc both side of pin guide hole by method of re-filling cost iron X-ray welding the hole about 6” dia and length 5” i/c making line bore x-axis on line bore m/I having dia 100mm, length 3.5” as per direction of E/Incharge. |  |  | Job |  |
| 2. | 01 Job | Providing & fixing of shutter disc seat from bronze metal by casting having finished size outer 1175mm dia & inner dia 800mm width 50mm i/c making inside “V” shape thread length 50mm as per direction of engineer incharge. |  |  | Job |  |
| 3. | 01 Job. | Providing and fixing valve body seat frame bronze metal by casting having finished size outer dia 1050mm inner dia 985mm width 100mm i/c making “V” shape thread for fixing the seat on valve body and as per direction of engineer incharge. |  |  | Job |  |
| 4. | 02 Job | Mfg. & Fixing of pin guide cover from MS rod having dia 220mm width 65mm making under cut from one side 140mm dia width 5mm other step cutting 63mm dia width 25mm i/c making hole 8 Nos. i/c having dia 19mm making greasing point as per direction E/Incharge. |  |  | Job |  |
| 5. | One Unit | Mfg. and Fixing in valve body cermic seal (imported) having cross sectional dia 10mm, outer dia 1320mm as per direction of E/Incharge. |  |  | Each |  |
| 6. | 73 Kg. | Providing & Fixing assorted size stain less steel Nuts, Bolts & Washer (Pg=71, I-4, PB - 49). |  |  | Kg. |  |
| 7. | 04 Meter | Providing & Fixing of Oil Paper |  |  | meter |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 8. | 01 Job | Assembling of Non return valve after complete satisfactory repair of valve disc valve pin body at proper place i/c application of anti corrosive coating and sea paint as per direction of Engineer Incharge. |  |  | Job |  |
|  |  |  |  | **TOTAL** | **Rs.** |  |

Resident Engineer

N.E.K (P&F) K-II, III

KW&SB

I/We hereby Quoted Rs..\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees

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Signature of Contractor

With name of firm & Seal

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Contact # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Work **EMERGENT ENGINEERING SERVICES OF NON RETURN VALVE 800MM DIA OF PUMP SET NO. “E” AT HIGH LIFT PUMP HOUSE N.E.K (P&F) K-II PLANT.**

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| **Item No.** | **Qty.** | **Description of Item to be**  **Executed at Site** | **Rate** | | **Unit** | **Amount in Rupees** |
|  | **Amount**  **( in Figures)** | **Amount**  **(in Words)** |
| 1. | 01 Job | Complete dismantling of valve shutters disc pin both side of shutter dic, shutter disc & valve body seat bronze etc. |  |  | Job |  |
| 2. | 01 Job | Repair & re-conditioning of shutters valve disc complete front & back side by method of sand blasting process i/c making “V” shape thread as disc conner for fixing the disc seating ring having dia 1000mm length 25mm with special holding attachment i/c anti corrosion sea paint side of disc two coat as per direction of E/Incharge. |  |  | Job |  |
| 3. | 02 Nos. | Local Mfg. of valve pin from S.S solid shaft having dia 140mm length 465mm making coller having dia 133mm length 30mm other step cutting having dia 120mm, length 310mm, and last step cutting dia 108mm length 120mm making case harding on furnauce m/L as per direction of engineer incharge. |  |  | Job |  |
| 4. | 02 Job | Repair & reconditioning of valve body both pin guide hole by method of re-filling ovel shape (damaged hole) cost iron x-ray welding about 6” dia and length 6” i/c making hole both pin guide at same exis with out disturbing of disalligment having dia 125mm length 25mm & othe dia 107mm length 6” i/c sand blasting from inside the above body having with 800mm dia i/c making anticorrosive sea paint inside the valve as per direction of incharge. |  |  | Job |  |
|  |  |  |  | **TOTAL** | **Rs.** |  |

Resident Engineer

N.E.K (P&F) K-II, III

KW&SB

I/We hereby Quoted Rs..\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees

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Contact # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Work **COMPLETE OVERHAULING OF 2008.8 M3/H (WEIR PUMP) # B&C I/C SERVICING OF ELECTRIC MOTOR & PANEL INSTALLED AT HIGH LIFT PUMP HOUSE NEK (P&F), K-II PLANT.**

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| **Item No.** | **Qty.** | **Description of Item to be**  **Executed at Site** | **Rate** | | **Unit** | **Amount in Rupees** |
|  | **Amount**  **( in Figures)** | **Amount**  **(in Words)** |
| 1. | 02 Job | Removal of Termination and terminal box and isolated the 60 KW Electric Motor from the Pump remove from base then dismantle the pump from foundation and de-bolting the equipment removal of column pipe 18” dia 3 Nos. then re-assembling the pump after engineering servicing complete its termination after servicing & fixing of terminal box complete in all respect and as per direction of Engineer Incharge. |  |  | Job |  |
| 2. | 02 Job | Removal of impeller from shaft with help of hydraulic pressure machine & oxygen acetylene Flame as per direction of Engineer Incharge |  |  | Job |  |
| 3. | 02 Nos. | Re-conditioning & balancing of UNIGLIDE type impeller pump 18” dia by welding of worn out wings used special organ welding with help of kansi electrodes & machining & grinding to bring finished size with out disturbing its original shape & balancing as per sample and as per direction of Engineer Incharge. |  |  | Job |  |
| 4. | 02 Job | Re-fixing of impeller in pump shaft with the help of hydraulic pressure machine (heavy duty) & balancing with accurate center as per direction of E/Incharge. |  |  | Job |  |
| 5. | 04 Nos. | Manufacturing & providing S.S. Saleeve as per sample size 50x40x100mm direction of E/Incharge. |  |  | Each |  |
| 6. | 02 Nos. | Manufacturing & providing S.S. Saleeve as per sample size 50x40x140mm direction of E/Incharge. |  |  | Each |  |
| 7. | 02 Nos. | Manufacturing & providing S.S. Saleeve as per sample size 50x40x175mm direction of E/Incharge. |  |  | Each |  |
| 8. | 04 Nos. | Manufacturing & providing S.S. Saleeve as per sample size 100x40x200mm direction of E/Incharge. |  |  | Each |  |
| 9. | 12 Nos. | Removal of saleeve with the help of hydraulic pressure machine (heavy duty) & acetylene flame as per direction of E/Incharge. |  |  | Each |  |
| 10. | 12 Nos. | Fixing of sleeve in pump shaft by heat engineering process as per direction E/Incharge. |  |  | Each |  |
| 11. | 08 Nos. | Manufacturing & providing M. lock key as per sample 150x20x12mm as direction E/Incharge. |  |  | Each |  |

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| 12. | 02 Nos. | Manufacturing & providing spider bush Rubber bearing with gun metal steel body re-enforced with neuprem rubber as per sample as per direction of E/Incharge size 75x55x100mm. |  |  | Each |  |
| 13. | 04 Nos. | Manufacturing & providing spider bush rubber bearing with gun metal steel body re-enforced with neuprem rubber as per sample as per direction of E/Incharge size 75x55x80. |  |  | Each |  |
| 14. | 06 Nos. | Removal of rubber bearing (spider bush) from housing with the help of hydraulic pressure machine(heavy duty) & acetylene flame as per direction E/Incharge. |  |  | Each |  |
| 15. | 06 Nos. | Fixing of rubber bearing (spider bush) in housing by heat engineering process as per direction of E/Incharge. |  |  | Each |  |
| 16. | 06 Nos. | Manufacturing & providing of studs as per sample as per direction of E/Incharge. |  |  | Each |  |
| 17. | 02 Nos. | Manufacturing of S.S Neck ring having size 240x20x33mm for weir pumps as per sample direction of E/Incharge. |  |  | Each |  |
| 18. | 02 Job | Removal of S.S. Neck ring from defuser housing with the help of hydraulic pressure machine. |  |  | Job |  |
| 19. | 02 Job | Fixing of S.S Neck ring in the defuser housing by heat engineering process. |  |  | Job |  |
| 20. | 10 Kg | Providing 12x12mm Teflon gland pakcing. |  |  | Kg |  |
| 21. | 30 Kg | Providing rubber flange gas kit size 4x1/8” (Pb-49, Ph-71, Itm-06) |  |  | Kg |  |
| 22. | 06 Meter | Providing 0.5mm Fiber Paper sheet (imported)having width = 1 Meter |  |  | Meter |  |
| 23. | 200 Pounds | Providing Cotton west (Pb-48, Ph-35, Itm-120) |  |  | Pound |  |
| 24. | 100 Kg | Providing Nuts & Bolts i/c Plain & Spring Washer (Pb-49, Ph-71, Itm-05). |  |  | Kg |  |
| 25. | 02 Kg | Providing USA made dedex jointing solution. |  |  | Kg |  |
| 26. | 02 Job | Over hauling of 60 KW vertical houlow shaft Electric Motor.  **Scope of Work as Under:-**  \* Initial testing and dismentalling of Motor.  \* Washing / Cleaning of winding with Special cleaning agent (CTC)  \* Drying Winding at 110 C temperature  \*Testing of winding before impegranatain  \*Impregnatain of winding with class “F” warmish insulation and drying.  \*Complete checking & balancing of rotor after decabonise.  \*Static testing and painting of complete motor  \*Witness testing as Site. |  |  | Job |  |

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| **Item No.** | **Qty.** | **Description of Item to be**  **Executed at Site** | **Rate** | | **Unit** | **Amount in Rupees** |
|  | **Amount**  **( in Figures)** | **Amount**  **(in Words)** |
| 27. | 02 Nos  02 Job  02 Job  02 Job | Providing of bearing # 6318 BCG (SKF)  **Detail of Service**  Service fee for bearing mounting / dismounting.  Transportation charges of all equipments.  Weigh/Shims/Lubricants of SKF |  |  | Each  Job  Job  Job |  |
| 28. | 03 Jobs | Servicing of electric panel for operating 60 KW electric motor decontamination of bus bar including replacement of over heated bus bar lugs nuts & bolts etc (one incoming + 2 out going panel) |  |  | Job |  |

Resident Engineer

N.E.K (P&F) K-II, III

KW&SB

I/We hereby Quoted Rs..\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees

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