



वेस्टर्न कोलफील्ड्स लिमिटेड
Western Coalfields Limited
(मिनीरत्न कंपनी)(A Miniratna Company)
(कोयला इंडिया लि. की अनुषंगी कंपनी)
(A Subsidiary of Coal India Limited)



वसुधैव कुटुम्बकम्
ONE EARTH - ONE FAMILY - ONE FUTURE

सामग्री प्रबंधन विभाग

Deptt. of Material Management

email- gmmm.wcl@coalindia.in
CIN - U10100MH1975GOI018626

☎/FAX: 0712-2510284
🌐 www.westerncoal.in

पंजीकृत कार्यालय : कोयला विहार, सिविल लाइन्स, नागपुर (महाराष्ट्र) 440001 / Regd. Off.: Coal Estate, Civil Lines, Nagpur (MS) - 440001

SO. NO. 12000110322125

Dt: 19-12-2022

SUPPLY ORDER

प्रति,

By Speed Post / email

M/s. BEML LIMITED
23/1 BEML SOUDHA
4TH MAIN S R NAGAR BANGALORE
Pin - 560027

Vendor Code: 10006588
Vendor Category: Manufacturer
MSE Status : Non MSE
Email: mtt@beml.co.in
Mobile no: 9440600172

Dear Sir,

Sub : Formal Supply Order for Supply, Installation and Commissioning of 5-6 cum Hydraulic Diesel powered backhoe bucket Excavators along with Spares and Consumables for 12 months of warranty period and thereafter Spares and Consumables for 48 months guarantee period

Ref : 1. Our open tender enquiry no. WCL-Hq-Pur-spk-ra-e007-2022-23, opened on 26-09-2022 (Tender id : 2022_WCL_253530_1), PBO / RA on 03-11-2022

2. Your offer vide Bid id no : 864706 dt. 19.09.2022.

3. Our counter offer vide no: WCL/MM/2022/Sec-I/Hyd Excv/866 dt 07/12/2022

4. Your Counter Officer acceptance vide no: BEML/MN/209/WCL/BE1000-1 Dt: 08/12/2022

5. E-office-ref no: E-698195

This has reference to above. We are pleased to place our formal supply order on you for Supply, Installation and Commissioning of 5-6 cum Hydraulic Diesel powered backhoe bucket Excavators along with Spares and Consumables for 12 months of warranty period and thereafter Spares and Consumables for 48 months guarantee period, as per the price, scope of supply, technical specifications and terms and conditions stipulated below and general terms and conditions enclosed

Sl no	Item Description	Unit Price (Rs. / No / Set)	Order Qty	Extended Value Rs.
	Hydraulic Excavator BEML Make; Model - BE 1000-1 Type Backhoe, 5.0 Cum Bucket capacity powered by Cummins Make QSK19-C Model Diesel Engine developing 485 KW Net Power @ 1800 RPM, along with Spares and Consumables for 12 months of warranty period and thereafter Spares and Consumables for 48 months guarantee period. Scope of Supply and detailed Technical Specifications as per Annexure - 5 & 6 enclosed			
1	COST OF EQUIPMENT	44417000.00		310919000.00
2	PACKING AND FORWARDING , INSURANCE CHARGES	0.00		0.00
3	FREIGHT CHARGES	0.00		0.00
4	TOTAL COST OF EQUIPMENT (1+2+3)	44417000.00		310919000.00
5	GST ON COST OF EQUIPMENT @ 18%	7995060.00	7 nos	55965420.00
6	INSTALLATION AND COMMISSIONING	0.00		0.00
7	GST ON INSTRALLATION AND COMMISSIONING	0.00		0.00
8	Total Cost of Equipment (Including GST)	52412060.00		366884420.00
9	SPARES AND CONSUMABLES FOR INITIAL 12 MONTHS OF OPERATION	4528894.00		31702258.00

	DURING THE WARRANTY PERIOD (List of Spares and consumables per each equipment is enclosed as Annexure -1a)		
10	GST ON INITIAL SPARES AND CONSUMABLES (as per Annexure -1a)	829260.92	5804826.44
11	TOTAL CAPITAL COST	57770214.92	404391504.44
12	SPARES AND CONSUMABLES for 2 nd year operation of the Equipment (List of Spares and consumables per each equipment is enclosed as Annexure – 1b)	12918740.00	90431180.00
13	GST ON 2ND YEAR SPARES AND CONSUMABLES (as per Annexure – 1b)	2353630.30	16475412.10
14	SPARES AND CONSUMABLES for 3 rd year operation of the Equipment (List of Spares and consumables per each equipment is enclosed as Annexure – 1c)	16240031.00	113680217.00
15	GST ON 3RD YEAR SPARES AND CONSUMABLES (as per Annexure – 1c)	2945481.18	20618368.26
16	SPARES AND CONSUMABLES for 4 th year operation of the Equipment (List of Spares and consumables per each equipment is enclosed as Annexure – 1d)	17007249.00	119050743.00
17	GST ON 4TH YEAR SPARES AND CONSUMABLES (as per Annexure – 1d)	3540077.32	24780541.24
18	SPARES AND CONSUMABLES for 5 th year operation of the Equipment (List of Spares and consumables per each equipment is enclosed as Annexure – 1e)	5543412.00	38803884.00
19	GST ON 5TH YEAR SPARES AND CONSUMABLES ((as per Annexure – 1e)	1015162.46	7106137.22
20	TOTAL REVENUE COST	61563783.26	430946482.82
21	GRAND TOTAL (Total Order Value)	119333998.18	835337987.26

Total Procurement Value : Rs. 83,53,37,987.26

(Rupees Eighty Three Crores Fifty three Lakhs Thirty Seven Thousand Nine Hundred and Eighty Seven and twelve six paise only)

OTHER TERMS & CONDITIONS:

- Prices:** Firm and on F.O.R. destination basis, inclusive of Packing, forwarding Charges, freight and Transit insurance charges. Safe arrival of the Goods to the Consignee is the responsibility of the supplier.
- GST:** GST shall be paid extra as applicable at the time of Dispatch within the stipulated delivery period. Input Tax Credit benefit shall be availed by WCL for 2nd year to 5th year Spares and Consumables. You have to submit GST compliant Invoice along with the supplies. In case of spares and consumables (to be supplied for 1+ 4 years), GST applicable is different for different items, as given in the List enclosed as Annexure -1a to 1e as applicable at the time of delivery. In case WCL is unable to avail ITC or any liability arises to WCL due to failure on the part of supplier, the entire amount including Interest (If any) borne by WCL shall be recovered from you

The current rate of GST is as under:

Equipment : 18%.
Spares and consumables : As indicated in List as per Annexure 1a to 1e (item-wise)

3. Delivery schedule:

A) For Equipment and Initial 12months Spares and Consumables: Supply, Installation and commissioning of all the 7 nos Excavators along with the standard accessories, standard Tools and Spares and Consumables for initial 12 months operation of the Equipment at the Project site is to be completed within Five (5) months from the date of placement of order. However, delivery shall be reckoned from 10th day from the date of order ie upto 28-05-2023. The date of commissioning of Hydraulic Excavators at our project site shall be treated as the date of delivery.

B) For Spares and Consumables for 2nd, 3rd, 4th and 5th Year : Supply of Spares Parts & Consumables in accordance with the year wise schedule as per Annexure 1b to 1e for the 4 years operation after completion of 1

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SO no: 12000110322125 dt. 19-12-2022 on M/s BEML Limited

year warranty from the accepted date of commissioning, shall be made by you in minimum three lots in consultation with the user project during each respective year .

Note : (a.) No material should be supplied beyond the specified period, unless specific approval has been obtained from the purchaser.

(b.) Safe arrival of the equipment and other items at site is the responsibility of the supplier.

Normally extension of delivery period will not be granted. However, in case of extension of delivery period becomes essential, the supplier will send their request for extension of delivery period to the purchaser before expiry of delivery period. In the event of failure to supply the ordered material within the stipulated delivery schedule, you must obtain extension of delivery period, with or without liquidated damage, before dispatch/supply of ordered goods. Supplies made without obtaining extension of delivery period shall be liable for non-acceptance at the stores.

Grace Period: A grace period of 25% of original delivery period or 21 days, whichever is earlier, unless specifically disallowed will be applicable.

Where supplies are made within the grace period, there is no necessity for any extension in delivery period and the paying authorities shall make payment without any amendment to the contract delivery period. No liquidated damages are leviable in respect of supplies made within the grace period. The extra expenditure, the purchaser may have to incur on account of increase/fresh imposition of GST/CST/VAT, Excise/Customs Duty etc. which takes place within the above grace period will also not be recoverable from the suppliers.

The grace period is allowed as a matter of grace and is not intended to operate as extension of the delivery period. The grace period will only apply to the original contract delivery period / refixed delivery period and will not be applicable once an extension of delivery has been granted.

4. Consignee and Allocation: The Order Goods shall be consigned to Depot Officer, Regional Stores of Respective WCL Areas as per the details given below:

Sl No	Area	Project	Quantity (Nos)	Consignee Address
1	Wani North	Ukni Deep SCH	2	The Depot Officer, Regional Stores, Western Coalfields Limited, Wani North Area , PO: UKNI, Tahsil: WANI, Dist : Yavatmal (MS)Pin : 445 304
2	Chandrapur	Bhatadi OC- 1 nos Durgapur Exp OC – 1 nos	2	The Depot Officer, Regional Stores, Western Coalfields Limited, Chandrapur Area, Durgapur Opencast, P.O.: DURGAPUR, Distt, Chandrapur,(M.S) Pin : 442 403
3	Nagpur	Gondegaon Ghatrohan- 1 no Inder Kamptee Deep- 1nos	2	The Depot Officer, Regional Stores, Western Coalfields Limited, Nagpur Area PO: SILEWARA COLLIERY, Dist. Nagpur (M.S.)Pin:441 109
4	Majri	N Majir UG to OC – 1 nos	1	The Depot Officer, Depot Officer, Regional Stores, WCL, Majri Area PO: Shivaji Nagar, Dist: Chandrapur (MS) Pin: 442603

WCL GSTIN no for Maharashtra State (M.S.): 27AAACW1578L1ZW

5. Pre Dispatch Inspection / Final Inspection : Final Inspection shall be carried by Consignee at Site. However, WCL reserves its right to get the Equipment inspected before dispatch by the representative of GM(Excv) I/C, WCL Hqrs or any other agency appointed by WCL. In case it is decided to carry out pre dispatch inspection by WCL's representative then equipment has to be dispatched to Consignee project within 15 days or earlier from the date of inspection after clearance by WCL's representative.

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6. Payment Terms:

A. For Payment of equipment and consumable spares and consumables for first 12 months of warranty period from the date of commissioning of the equipment

- i) 80% value of the equipment and consumable spares and consumables for first 12 months of warranty period from the date of commissioning of the equipment and 100% taxes and duties and other charges excluding erection & commissioning charges shall be made within 21 days after receipt and acceptance of materials at site at the consignee's end and acceptance of Performance Bank Guarantee valid till 3 months after the completion of 60 months period from the date of commissioning of all the equipment covered in the contract.
- ii) Balance 20% payment including erection & commissioning charges shall be made after successful completion of erection, testing, commissioning and final acceptance of the equipment (along with the accessories) upon presentation of successful commissioning certificate, signed by the concerned officials of the Project and counter-signed by the Area General Manager, where the equipment has been deployed and confirmation of receipt of spares and consumables for first 12 months of warranty period from the date of commissioning of the equipment by the paying authority.
- iii) Freight charges shall be paid at actual subject to ceiling of the price indicated above against documentary evidence..

B. For Payment of spares and consumables for 48 months after the warranty period of 12 months from the date of commissioning of the equipment: 100% value of the Spares and Consumables supplied as per scope of supply and 100% taxes and duties and other charges shall be made within 21 days after receipt and acceptance of materials at consignee's end.

7. Paying Authority: General Manager (Fin), Western Coalfields Limited, Hqrs, Nagpur 440001.- for Equipment and 1st Year Spares.

AFM, of respective area for Spares and consumables for 2nd year to 5th year.

8. Supply Point:

For Equipment : Supply and Billing will be from

M/s. BEML Limited

BEML Nagar, Kolar Gold Fields – 563 115

Karnataka, India. PH: 08153 279006 : GSTIN: 29AAACB8433D1ZU

SAP VENDOR CODE: 10006654

For Spares and Consumables : Supply and Billing will be from

BEML Limited, Mamidwar Tiles factory compound,

Ghugus Road, Padoli, Chandrapur – 442 406, Maharashtra state, India

PH: 07172 -287230 GSTIN: 27AAACB8433D1ZY

SAP VENDOR CODE: 10003079

Note - Address of the supply point for spares and consumables mentioned above may change in future at the time of billing, however GST remains same

9. EFT Details of the supplier: As per the Bank Mandate Enclosed as **Annexure '2'**, as submitted by you along with offer.

10. SUBMISSION OF BILLS:

Submission of Documents for Payment for equipment: You are required to submit the following documents along with bills to the paying authority through Consignee:

- a. Four copies of the Supplier's invoice, Pre-Receipted and Stamped showing Contract Number, Goods description, quantity, unit price, total amount and GST No. of Ultimate Consignee.
- b. Receipted Challan/ Consignment Note of all the consignments.
- c. Manufacturer's Test / Inspection Certificate as applicable
- d. Manufacturer's Warranty /Guarantee Certificate.
- e. Lowest Price Certificate
- f. Copy of Performance Bank Guarantee
- g. Documentary evidence for freight charges up to the destination (as applicable).
- h. Any other document(s) required as per contract.

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Submission of Documents for Payment for spares and consumables as per scope of supply:

For payment for Spares and consumables, you are required to submit the following documents along with bills to the paying authority:

- a. Four copies of the Supplier's invoice, Pre-Receipted and Stamped showing Contract Number, Goods description, quantity, unit price, total amount and GST No. of Ultimate Consignee.
- b. Receipted Challan/ Consignment Note of all the consignments.
- c. Lowest Price Certificate
- d. Any other document(s) required as per contract.

11. Mode of dispatch: All the stores securely packed are to be dispatched by road transport to the consignee on Freight paid basis.

12. Security Deposit: Not Applicable (exempted being PSU)

13. Guarantee/ Warranty: As per the terms and conditions indicated at Part C- C-7, C-8, C-9 and Part D -cl no: 7 and 8 and other relevant guarantee / warranty clauses as indicated in the Technical Specifications of Annexure – 5 enclosed

14. Performance Bank Guarantee: You have to submit performance bank guarantee for 10% of the order value (landed cost) ie value of the equipment plus value of 1st, 2nd, 3rd, 4th and 5th year spares and consumables, amounting to **Rs. 8,35,33,798.00** (Rupees Eight Crores Thirty Five Lakhs Thirty three Thousand Seven hundred and Ninety Eight only) which shall be valid for a period of 63 months (60 months + 3months) of from the date of Commissioning of Equipment to cover the guarantee period and as a coverage towards non performance towards the Guaranteed availability as per the contract and the same shall be released on receipt of satisfactory performance throughout the guarantee period. The PBG extension if any shall be done on or before expiry of original date of expiry of bank guarantee. The Bank Guarantee shall be released after successful completion of the guarantee/warranty period after confirmation from GM(EXCV)HOD, WCL(HQ)s Any short fall of performance availability, deduction shall be made as per technical specification. No payment shall be made without submission of performance Bank Guarantee. PBG can be submitted Equipment wise also.

The Bank Guarantee to be issued by the issuing bank on your behalf in the favour of "Western Coalfields Ltd " shall be in paper form as well as issued under "Structured Financial Messaging System"(SFMS), the format of which is attached as Annexure-4

The Procedure for submission of Bank Guarantee / verification is as indicated at Security Deposit Clause above.

In case any amount of PBG is en-cashed as penalty as per the effect and duration of Guarantee of the contract, the supplier shall replenish the same immediately so that the value of the PBG does not fall below the specified level (i.e. 10% of the landed value), at any point of time during entire contract period.

The Amount of PBG should be maintained by the supplier for 10% of order value throughout the performance period. In the event of failure to do so, WCL reserves the right to recover the required Amount from any amount payable to the supplier/ pending bills from WCL/ CIL or any subsidiary of CIL or to recover same from the balance Amount of Bank Guarantees for same/ any other Equipment(s), supplied by the firm.

15. Liquidated Damages:

(a) In the event of failure to deliver or dispatch the equipment/stores within the stipulated date/period in accordance with the terms and conditions and the specifications mentioned in the supply order and in the event of breach of any of the terms and conditions mentioned in the supply order, the Purchaser shall have the right:

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- (a) To recover from the successful bidder as agreed liquidated damages, a sum not less than 0.5% (Half Percent) of the price of any equipment/ stores which the successful tenderer has not been able to supply as aforesaid for each week or part of a week during which the delivery of such stores may be in arrears limited to 10% (Ten Percent) of the total contract value, or
- (b) To purchase elsewhere after due notice to the successful tenderer on the account and at the risk of the defaulting supplier, the equipment/stores not supplied or others of similar description without cancelling the supply order in respect of the consignment not yet due for supply, or
- (c) To cancel the supply order or a portion thereof, and if so desired to purchase the equipment/ stores at the risk and cost of the defaulting supplier and also,
- (d) To extend the period of delivery with or without penalty as may be considered fit and proper. The penalty, if imposed, shall not be more than the agreed liquidated damages referred to in clause (a) above.
- (e) To forfeit the security deposit full or in part.
- (f) Whenever under this contract any sum of money is recoverable from and payable by the supplier, the Purchaser shall be entitled to recover such sum by appropriating in part or in whole by deducting any sum or which at any time thereafter may become due to the successful tenderer in this or any other contract. Should this sum be not sufficient to recover the full amount recoverable, the successful tenderer shall pay the Purchaser on demand the remaining balance. The supplier shall not be entitled to any gain on any such purchase.

For the purpose of the calculation of the liquidated damages amount, the basic Free Delivery at Site price shall be considered. For direct imports, the CIP price at Final Place of destination will be considered. Taxes and duties shall not be taken into account for calculation of LD. However, when prices indicated in the order are inclusive of taxes and duties, such prices will be taken for calculation of LD.

Note: GST at the applicable rate shall be applicable on the Liquidated Damages

(b) Denial Clause:

In case of extension of delivery period, any increase in statutory duties and/or upward rise in prices due to price variation clause and/or exchange rate variation clause, is to be borne by the seller during the extended delivery period, while purchaser reserves its right to get any benefit of downward revisions in statutory duties, PVC and exchange rate variation clause.

Regarding increase in statutory taxes and duties during the extended period, the same shall be admissible provided WCL gets 100% Input credit for those taxes and duties; otherwise increase in the statutory taxes and duties shall not be paid to the seller. However, the decrease in statutory taxes and duties shall be availed by WCL.

16. Force Majeure Clause: If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed by reason of any wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, freight embargoes or act of God (hereinafter referred to "events") provided, notice of the happening of any such event is given by either party to the other within 21 days from the date of occurrence thereof neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and deliveries under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, provide further that if the performance in whole or part or any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, either party may at its option terminate the contract provided also that if the contract is terminated under this clause, the purchaser shall be at liberty to take over from the contractor at a price to be fixed by the CIL / Subsidiary Company, which shall be final, all unused, undamaged and acceptable materials, bought out components and stores in course of manufacture in the possession of the contractor at the time of such termination or such portion thereof as the purchaser may deem fit excepting such materials, bought out components and stores as the contractor may with the concurrence of the purchaser elect to retain."

In such a situation, the supplier shall promptly notify the purchaser in writing of such conditions and the cause thereof, duly certified by the local Chamber of Commerce or Statutory authorities, the beginning and end of the causes of the delay, within twenty one days of occurrence and cessation of such Force Majeure Conditions. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

For delays arising out of Force Majeure, the supplier will not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure

17. Risk Purchase Clause:

In the event of failure of the supplier to deliver or dispatch the stores within the stipulated date/period of the supply order or in the event of breach of any of the terms and conditions mentioned in the supply order/ contract, WCL shall have the right to purchase the stores from elsewhere after due notice to the defaulting supplier at the risk and cost of the defaulting supplier. The cost as per risk purchase exercise shall be recovered from the Earnest Money Deposit/ Security Deposit/ Performance Security of the supplier and/or bills submitted by the supplier against the same contract or any other contract pending in the same Subsidiary Co. and/or in any other Subsidiary Companies / CIL.

Risk Purchase Action shall be initiated as a last resort, if the supplier has failed to deliver despite having been given adequate and proper notice to discharge its obligations and under any of the following conditions:

- a) When the supplier fails to deliver the materials even after extending the delivery period.
- b) When the supplier fails to respond to purchaser's request for supply of the materials and fails to provide any genuine and bonafide reason for the delay in supply.
- c) When the supplier breaches any of the terms and conditions of the supply order/ contract and as a result fails to execute the order satisfactorily.

18. Lowest Price Certificate : You have undertaken that the prices quoted by you for the ordered items are the lowest prices as applicable to any other Organization / Ministry / Department of the Govt, of India or Coal India Ltd. and /or its Subsidiaries or other PSU or any other private organization and a certificate to this extant to be submitted alongwith the Invoice

19. Price Fall Clause:

"You have undertaken that you have not offered to supply / supplied / is not supplying same or similar product / systems or sub systems at a price lower than that offered in the present bid in respect of any Organization / Ministry / Department of the Govt, of India or Coal India Ltd. and /or its Subsidiaries or other P S U or any other private organization during the currency of the contract and if it is found at any stage that same or similar product / systems or sub systems was supplied by the bidder to any Organization / Ministry / Department of the Govt, of India or Coal India Ltd. and /or its Subsidiaries or other PSU or any other private organization at a lower price during the currency of the contract, then that very price will be applicable to the present case and the difference in the cost would be refunded by the bidder to buyer, if the contract has already been concluded .

- (i) The currency of contract will mean the period till completion of supply.
- (ii) The bidder shall have to submit a copy of the last (latest) purchase order for the tendered / similar item (s) received by them from any Organization / Ministry / Department of the Govt, of India Coal India Ltd. and /or its Subsidiaries or other PSU or any other private organization, along with the offer.

(iii) It shall be responsibility of the supplier to inform the purchaser of offer to supply / supply of the ordered / similar item (s) at a lower rate to any Organization / Ministry / Department of the Govt, of India or Coal India Ltd. and /or its Subsidiaries or other PSU or any other private organization during the currency of the contract.

(iv) The supplier shall submit a certificate along with the bill(s) that it has not offered to supply / supplied the ordered / similar item (s) at a lower rate to any Organization / Ministry / Department of the Govt, of India or Coal India Ltd. and /or its Subsidiaries or other PSU or any other private organization. "

20. Settlement of Disputes through Court of Law of Competent Jurisdiction: The Courts in whose territorial jurisdiction the place from where contract is being issued is located i.e. Nagpur shall be competent to deal with any matter arising out of this purchase Order/Contract . Therefore any disputes/claims arising out of the contract entered into with the suppliers will be subject to the jurisdiction of the Nagpur court of law

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21. Arbitration : In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs) /Port Trusts inter se and also between CPSEs and Government Departments / Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22.05.2018."

22.Pre-contract Integrity Pact: Already signed and submitted by you along with offer and shall be applicable for this contract

23. General Conditions of Contract: All other terms and conditions shall be as per the NIT. This order shall also be governed by the General Conditions of Contract attached as Annexure-7, unless and otherwise specified above.

This order is being placed on the basis of terms and conditions already accepted by you as per the NIT terms. You may acknowledge the receipt of this order within 15 days from the date of receipt of this order.

Yours faithfully

Natish
19/12/2022
उप. प्रबंधक (सामग्री प्रबंधन)
वेकोलि, मुख्यालय, नागपुर

W. K. L.
19/12/2022
मुख्य प्रबंधक (सामग्री प्रबंधन)
वेकोलि, मुख्यालय, नागपुर

Enclosures: -

1. Annexure 1 – Details of Spares and Consumables - 1st year to 5th Year
2. Annexure 2 –Bank Mandate Form of the supplier for Bank Details
3. Annexure – 3 – BG format for Security Deposit
4. Annexure – 4 PBG format
5. Annexure – 5 Technical Specifications
6. Annexure - 6 Additional Technical Specifications
7. Annexure - 7 General Terms and Conditions of the Contract

Copy to :

1. GM(Excv) HOD/ GM(Fin)-I / GM(P&P), WCL(HQ), Nagpur
2. AGM / SO(MM) / SO(Excv)/AFM / Depot Officer, WCL Wani North / Majri / Chandrapur / Nagpur Areas
3. Chief. Manager(Fin)CP, WCL Hqrs
4. Chief Manager(MM) / Admin- WCL hqrs
5. GM(MM) of CIL & Other Subsidiary of CIL (NCL / SECL/ ECL/ CCL / BCCL / MCL)
6. Independent External Monitors:
 - i.) Shri Sudhir Kumar, IAS(Retd), Flat no 8022, ATS – One Hamlet, Sector- 104, PO Maharshi Nagar, Noida – 201304, Email sukuag@hotmail.com, Mo No 9560430245
 - ii.) Shri. Anil Kaushal, ITS(Retd, A-1/245, GF, Janakpuri, New Delhi - 110058, Email: kaushal.anil17@gmail.com and Mo No 8800028118

SO no: 12000110322125 dt. 19-12-2022 on M/s BEML Limited

Indent details: Approved Consolidated Indent / PR no: 1300051900 released on 26-10-2022 as per the details given below:

SN	PROJECT	AREA	ALLOCATION(QTY)	Area PR no
1	Ukni Deep SCH	Wani North	2 Nos	1300013981
2	Bhatadi OC	Chandrapur	1 No	1300027491
3	Durgapur Exp OC	Chandrapur	1 No	1300026931
4	Gondegaon Ghatrohan	Nagpur	1 No	1200000171
5	Inder Kamptee Deep	Nagpur	1 No	1200000171
6	N Majir UG to OC	Majri	1 No	1300015532

Budget Certification Details :

Capital Budget: Certified Vide Diary No FA/WCL/CAP/BC/2022-23/HEMM/12/10/43, Dated.19.12.2022 for Rs.4043.92 Lacs only.

Provisional Revenue Budget

- 1) For F.Y 2023-24 provisional budget is certified vide diary No. BC/WCL/REV/GM(EXCAV)/2023-24/HEMM SPARES/12/11/43, Dated.19.12.2022 for Rs.2,67,26,649/- only.
- 2) For F.Y 2024-25 provisional budget is certified vide diary No. BC/WCL/REV/GM(EXCAV)/2024-25/HEMM SPARES/12/12/43, Dated.19.12.2022 for Rs.11,37,54,591/- only.
- 3) For F.Y 2025-26 provisional budget is certified vide diary No. BC/WCL/REV/GM(EXCAV)/2025-26/HEMM SPARES/12/13/43, Dated.19.12.2022 for Rs.13,66,81,760/- only.
- 4) For F.Y 2026-27 provisional budget is certified vide diary No. BC/WCL/REV/GM(EXCAV)/2026-27/HEMM SPARES/12/14/43, Dated.19.12.2022 for Rs.11,93,50,969/- only.
- 5) For F.Y 2027-28 provisional budget is certified vide diary No. BC/WCL/REV/GM(EXCAV)/2027-28/HEMM SPARES/12/15/43, Dated.19.12.2022 for Rs.3,44,32,516/- only.

(Note: The Revenue Budget is the Provisional Budget . Respective Areas to obtain the Revenue Budget for the Spares and Consumables supplied during the respective year of supply as per the order.

Natish
19/12/22
उप. प्रबंधक (सामग्री प्रबंधन)
वेकोलि, मुख्यालय, नागपुर

Natish
19/12/2022
मुख्य प्रबंधक (सामग्री प्रबंधन)
वेकोलि, मुख्यालय, नागपुर

Annexure- 1 (a)

CONSUMABLE SPARES FOR 1ST YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 1st year / Eqpt	Extended Price for 1st Year	HSN Code	GST Rate	GST Value
1	4328040	SEPARATOR FUEL WATER	16,656.00	5	83,280.00	84212300	18%	14,990.40
2	5279609	FILTER FUEL	5,033.00	20	1,00,660.00	84212300	18%	18,118.80
3	5417137	FILTER FUEL	14,897.00	20	2,97,940.00	84212300	18%	53,629.20
4	4367100	FILTER LUBRICATING OIL	7,294.00	40	2,91,760.00	84212300	18%	52,516.80
5	4072352	RESISTOR CORROSION	413.00	10	4,130.00	84213100	18%	743.40
6	3816985	KIT COOLANT TEST	1,195.00	10	11,950.00	38200000	18%	2,151.00
7	4957708	ELEMENT AIR CLEANER OUTER	14,274.00	10	1,42,740.00	84213100	18%	25,693.20
8	4957709	ELEMENT AIR CLEANER INNER	9,074.00	10	90,740.00	84213100	18%	16,333.20
9	5412987	BELT V RIBBED (Alternator)	1,745.00	1	1,745.00	40103190	18%	314.10
10	CHF0101210	ELEMENT (HYDRAULIC)	1,392.00	80	1,11,360.00	84314200	18%	20,044.80
11	CHS0115175	O-RING (HYDRAULIC)	934.00	80	74,720.00	87089900	28%	20,921.60
12	817PH92916	ELEMENT (DRAIN - TRAVEL MOTOR & SW JT)	9,769.00	10	97,690.00	84314200	18%	17,584.20
13	817PH92949	ELEMENT (SWING BOOST FILTER)	7,733.00	10	77,330.00	84212190	18%	13,919.40
14	817PH92713	O-RING	1,189.00	10	11,890.00	84314200	18%	2,140.20
15	817PH92876	O-RING	985.00	10	9,850.00	84314200	18%	1,773.00
16	817PH93012	O-RING	874.00	10	8,740.00	40169320	18%	1,573.20
17	4196015250	BREATHER ELEMENT (HYDRAULIC TANK)	6,588.00	10	65,880.00	87089900	28%	18,446.40
18	817E113016	BELT FAN	6,675.00	5	33,375.00	84314200	18%	6,007.50
19	958AC61203	V-BELT AC	1,116.00	5	5,580.00	84314200	18%	1,004.40



CONSUMABLE SPARES FOR 1ST YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 1st year / unit	Extended Price for 1st Year	HSN Code	GST Rate	GST Value
20	817PH92835	FILTER ELEMENT-PTO LUBE	21,085.00	5	1,05,425.00	84212190	18%	18,976.50
21	817PH92673	FILTER ELEMENT-PILOT	36,998.00	1	36,998.00	84212190	18%	6,659.64
22	175HS02032	FLUSHING HYD ELEMENT	48,722.00	4	1,94,888.00	84212190	18%	35,079.84
23	07002F2434	O-RING (PTO DRAIN PLUG)	1,151.00	10	11,510.00	84314200	18%	2,071.80
24	CHS0303634	O-RING (FINAL DRIVE DRAIN PLUG)	208.00	8	1,664.00	84834000	18%	299.52
25	C600230002	ENGINE OIL E15W40-40/C14/C14 PLUS PER LTR	189.00	1470	2,77,830.00	84314200	18%	50,009.40
26	C600243000	HYDRAULIC OIL SAE30CD PER LTR	280.00	2730	7,64,400.00	27101980	18%	1,37,592.00
27	C600304000	GREASE NLGI-EP2 PER KG	377.00	1456	5,48,912.00	27101990	18%	98,804.16
28	817FSB0091	TOOTH POINT KIT- 5 CuM	1,17,711.00	4	4,70,844.00	84314200	18%	84,751.92
29	817BHB0087	SIDE CUTTER KIT-5 CuM	1,93,050.00	2	3,86,100.00	84314200	18%	69,498.00
30	175BH13158	WEAR PLATE	808.00	36	29,088.00	84314200	18%	5,235.84
31	171FS11736	WEAR PLATE	870.00	45	39,150.00	84314200	18%	7,047.00
32	175BH12153	WEAR PLATE	17,147.00	1	17,147.00	84314200	18%	3,086.46
33	175BH12137	WEAR PLATE	12,997.00	4	51,988.00	84314200	18%	9,357.84
34	175BH12112	WEAR PLATE	14,018.00	1	14,018.00	84314200	18%	2,523.24
35	175BH13093	WEAR PLATE	19,264.00	2	38,528.00	84314200	18%	6,935.04
36	175BH12145	WEAR PLATE	19,044.00	1	19,044.00	84314200	18%	3,427.92
TOTAL VALUE FOR 1ST YEAR					45,28,894.00			8,29,260.92

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Annexure- 1 (b)

GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 2ND YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 2nd year / Ecpt	Extended Price for 2nd Year	HSN Code	GST Rate	GST Value
1	4328040	SEPARATOR FUEL WATER	16,656.00	5	83,280.00	84212300	18%	14,990.40
2	5279609	FILTER FUEL	5,033.00	20	1,00,660.00	84212300	18%	18,118.80
3	5417137	FILTER FUEL	14,897.00	20	2,97,940.00	84212300	18%	53,629.20
4	4367100	FILTER LUBRICATING OIL	7,294.00	40	2,91,760.00	84212300	18%	52,516.80
5	4072352	RESISTOR CORROSION	413.00	10	4,130.00	84213100	18%	743.40
6	AX1013508	RADIWASH	5,096.00	2	10,192.00	84213100	18%	1,834.56
7	3816985	KIT COOLANT TEST	1,195.00	10	11,950.00	38200000	18%	2,151.00
8	3816981	PRE MIXED COOLANT	62,201.00	1	62,201.00	38200000	18%	11,196.18
9	4957708	ELEMENT AIR CLEANER OUTER	14,274.00	10	1,42,740.00	84213100	18%	25,693.20
10	4957709	ELEMENT AIR CLEANER INNER	9,074.00	10	90,740.00	84213100	18%	16,333.20
11	5412987	BELT V RIBBED (Alternator)	1,745.00	1	1,745.00	40103190	18%	314.10
12	CHF0101210	ELEMENT (HYDRAULIC)	1,434.00	72	1,03,248.00	84314200	18%	18,584.64
13	CHS0115175	O-RING (HYDRAULIC)	962.00	72	69,264.00	87089900	28%	19,393.92
14	817PH92916	ELEMENT (DRAIN - TRAVEL MOTOR & SW JT)	10,062.00	9	90,558.00	84314200	18%	16,300.44
15	817PH92949	ELEMENT (SWING BOOST FILTER)	7,965.00	9	71,685.00	84212190	18%	12,903.30
16	817PH92713	O-RING	1,225.00	9	11,025.00	84314200	18%	1,984.50
17	817PH92876	O-RING	1,015.00	9	9,135.00	84314200	18%	1,644.30
18	817PH93012	O-RING	900.00	9	8,100.00	40169320	18%	1,458.00
19	4196015250	BREATHER ELEMENT (HYDRAULIC TANK)	6,786.00	9	61,074.00	87089900	28%	17,100.72



GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 2ND YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 2nd year / Eqpt	Extended Price for 2nd Year	HSN Code	GST Rate	GST Value
20	817EI13016	BELT FAN	6,875.00	5	34,375.00	84314200	18%	6,187.50
21	958AC61203	V-BELT AC	1,149.00	5	5,745.00	84314200	18%	1,034.10
22	817PH92835	FILTER ELEMENT-PTO LUBE	21,718.00	5	1,08,590.00	84212190	18%	19,546.20
23	817PH92673	FILTER ELEMENT-PILOT	38,108.00	1	38,108.00	84212190	18%	6,859.44
24	175HS02032	FLUSHING HYD ELEMENT	50,184.00	4	2,00,736.00	84212190	18%	36,132.48
25	07002F2434	O-RING (PTO DRAIN PLUG)	1,186.00	9	10,674.00	84314200	18%	1,921.32
26	CHS0303634	O-RING (FINAL DRIVE DRAIN PLUG)	214.00	12	2,568.00	84834000	18%	462.24
27	C600230002	ENGINE OIL E15W40-40/C14/C14 PLUS PER LTR	198.00	1470	2,91,060.00	84314200	18%	52,390.80
28	C600243000	HYDRAULIC OIL SAE30CD PER LTR	294.00	2520	7,40,880.00	27101980	18%	1,33,358.40
29	C600304000	GREASE NLGI-EP2 PER KG	396.00	1456	5,76,576.00	27101990	18%	1,03,783.68
30	817FSB0091	TOOTH POINT KIT- 5 CuM	1,21,242.00	4	4,84,968.00	84314200	18%	87,294.24
31	817BH0087	SIDE CUTTER KIT-5 CuM	1,98,842.00	2	3,97,684.00	84314200	18%	71,583.12
32	175BH0083	HARD FACED B/H 5 CuM BUCKET ASSY AGAINST EXCHANGE	38,00,000.00	1	38,00,000.00	84314200	18%	6,84,000.00
33	175BH13158	WEAR PLATE	832.00	36	29,952.00	84314200	18%	5,391.36
34	171FS11736	WEAR PLATE	896.00	45	40,320.00	84314200	18%	7,257.60
35	175BH12153	WEAR PLATE	17,661.00	1	17,661.00	84314200	18%	3,178.98
36	175BH12137	WEAR PLATE	13,387.00	4	53,548.00	84314200	18%	9,638.64
37	175BH12112	WEAR PLATE	14,439.00	1	14,439.00	84314200	18%	2,599.02
38	175BH13093	WEAR PLATE	19,842.00	2	39,684.00	84314200	18%	7,143.12



GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 2ND YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 2nd year / Eqpt	Extended Price for 2nd Year	HSN Code	GST Rate	GST Value
39	175BH12145	WEAR PLATE	19,615.00	1	19,615.00	84314200	18%	3,530.70
40	156PM91122	HOSE ASSY	571.00	1	571.00	40091100	18%	102.78
41	CLN0200000	VALVE(RELIEF)	208.00	1	208.00	84099990	28%	58.24
42	CHS0311423	O-RING	419.00	2	838.00	84314200	18%	150.84
43	182PH63033	O-RING	323.00	1	323.00	40169320	18%	58.14
44	182PH63017	O-RING	308.00	1	308.00	84314200	18%	55.44
45	CHS0115170	O-RING	1,216.00	1	1,216.00	40169320	18%	218.88
46	CEB0208160	MAINTENANCE FREE BATTERY, 12V, 160AH	36,874.00	2	73,748.00	84314200	18%	13,274.64
47	125IP81246	SWITCH, ON/OFF	7,385.00	4	29,540.00	84314200	18%	5,317.20
48	817EG80013	DPDT SWITCH	2,437.00	4	9,748.00	84314200	18%	1,754.64
49	CEK0120000	KEY SWITCH	20,993.00	1	20,993.00	85365090	18%	3,778.74
50	125EG81928	PUSH BUTTON, START	2,355.00	1	2,355.00	85365010	28%	659.40
51	125EG81936	PUSH BUTTON, STOP	2,355.00	1	2,355.00	84314200	18%	423.90
52	817EG80573	TOGGLE SWITCH	1,185.00	1	1,185.00	84314200	18%	213.30
53	125EG91672	LIMIT SWITCH	5,941.00	1	5,941.00	84314200	18%	1,069.38
54	817EG90285	RELAY	3,468.00	2	6,936.00	84314200	18%	1,248.48
55	985EG81883	CIRCUIT BREAKER, 5A	786.00	1	786.00	87089900	28%	220.08
56	985EG81891	CIRCUIT BREAKER, 10A	648.00	7	4,536.00	87089900	28%	1,270.08
57	985EG81912	CIRCUIT BREAKER, 20A	2,025.00	8	16,200.00	87089900	28%	4,536.00



GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 2ND YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 2nd year / Eqpt	Extended Price for 2nd Year	HSN Code	GST Rate	GST Value
58	955EG11274	POWER RELAY	1,141.00	6	6,846.00	87089900	28%	1,916.88
59	817PO91841	PTO DIP STICK	2,833.00	1	2,833.00	84314200	18%	509.94
60	817PH94211	HOSE ASSY	1,807.00	1	1,807.00	40092200	18%	325.26
61	817PO02287	HOSE ASSY	1,906.00	1	1,906.00	84314200	18%	343.08
62	817PO02302	HOSE ASSY	2,009.00	1	2,009.00	84314200	18%	361.62
63	817PO02279	HOSE ASSY	1,463.00	1	1,463.00	84314200	18%	263.34
64	817PO02295	HOSE ASSY	1,803.00	1	1,803.00	84314200	18%	324.54
65	817PO02262	HOSE ASSY	2,369.00	1	2,369.00	84314200	18%	426.42
66	817PO62251	HOSE ASSY	5,665.00	1	5,665.00	84314200	18%	1,019.70
67	817PO02343	HOSE ASSY	8,137.00	1	8,137.00	84314200	18%	1,464.66
68	817PO02327	HOSE ASSY	1,329.00	1	1,329.00	84314200	18%	239.22
69	817PO02351	HOSE ASSY	7,828.00	1	7,828.00	84314200	18%	1,409.04
70	817PO02319	HOSE ASSY	2,245.00	1	2,245.00	84314200	18%	404.10
71	817PHB0103	HOSE KIT, VERTICAL MOUNTING	2,18,412.00	1	2,18,412.00	84314200	18%	39,314.16
72	817PHB0111	HOST KIT, PILOT LINE	1,73,949.00	1	1,73,949.00	84314200	18%	31,310.82
73	817PAB0028	HOSE KIT, WORK ATTACHMENT	3,41,665.00	1	3,41,665.00	40091100	18%	61,499.70
74	175FD31128	SPROCKET	2,55,133.00	2	5,10,266.00	84314200	18%	91,847.88
75	BFB2412495	BOLT	275.00	72	19,800.00	84314200	18%	3,564.00
76	CFN5012430	NUT	258.00	72	18,576.00	84314200	18%	3,343.68

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WCL



GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 2ND YEAR OF OPERATION PER EQUIPMENT

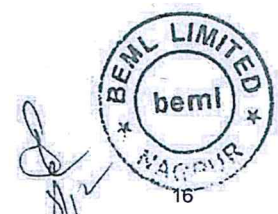
Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty/ reqd for 2nd year/ Eqpt	Extended Price for 2nd Year	HSN Code	GST Rate	GST Value
77	156PM91309	PPC VALVE TRAVEL	81,761.00	1	81,761.00	84812000	18%	14,716.98
78	21T6013680	DUMMY PLATE	28,392.00	4	1,13,568.00	84314200	18%	20,442.24
79	817MH91302	PILOT PUMP	1,21,302.00	1	1,21,302.00	84136010	28%	33,964.56
80	156PB95013	PLUNGER KIT	37,901.00	8	3,03,208.00	84819090	18%	54,577.44
81	182KIT0001	O-RING KIT (K1)	1,38,978.00	1	1,38,978.00	84314200	18%	25,016.04
82	175HC00032	SEAL KIT-BOOM CYL	2,29,552.00	2	4,59,104.00	40169990	18%	82,638.72
83	175HC00024	SEAL KIT-ARM CYL	1,66,007.00	1	1,66,007.00	84314200	18%	29,881.26
84	175HC00016	SEAL KIT-BUCKET CYL	1,69,565.00	1	1,69,565.00	40169990	18%	30,521.70
85	175BH02093	PIN	68,121.00	1	68,121.00	84314200	18%	12,261.78
86	175BH02085	PIN	1,92,460.00	1	1,92,460.00	84314200	18%	34,642.80
87	175FS02016	PIN	49,031.00	2	98,062.00	84314200	18%	17,651.16
88	175BH02052	PIN	1,00,015.00	1	1,00,015.00	84314200	18%	18,002.70
89	175BH02011	PIN	53,122.00	2	1,06,244.00	84314200	18%	19,123.92
90	175BH02077	PIN	1,33,861.00	1	1,33,861.00	84314200	18%	24,094.98
91	175BH51147	BUSHING	27,495.00	2	54,990.00	84314200	18%	9,898.20
92	175BH13458	BUSHING	30,077.00	4	1,20,308.00	84314200	18%	21,655.44
93	175BH91047	SEAL	9,960.00	2	19,920.00	84314200	18%	3,585.60
94	CHH1602416	HOSE ASSY	30,263.00	1	30,263.00	40091100	18%	5,447.34
95	CHH1602016	HOSE ASSY	18,428.00	1	18,428.00	84314200	18%	3,317.04

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M/s. WCL



GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 2ND YEAR OF OPERATION PER EQUIPMENT

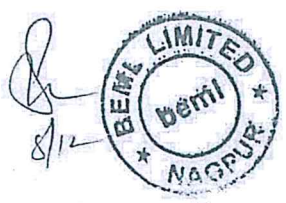
Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

SlNo	Part No	Description	Unit Sale Price	Total Qty reqd for 2nd year / Eqpt	Extended Price for 2nd Year	HSN Code	GST Rate	GST Value
96	171HC92016	BUSHING	1,71,487.00	2	3,42,974.00	84314200	18%	61,735.32
97	171HC61917	SEAL DUST	11,472.00	8	91,776.00	84129090	18%	16,519.68
98	CHH0702434	HOSE ASSY	30,964.00	1	30,964.00	40092200	18%	5,573.52
99	175HC02488	SEAL, DUST	5,389.00	4	21,556.00	39269099	18%	3,880.08
TOTAL VALUE FOR 2ND YEAR					1,29,18,740.00			23,53,630.30

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Noted



Annexure- 1 (c)

GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 3RD YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 3rd year / Ecpt	Extended Price for 3rd Year	HSN Code	GST Rate	GST Value
1	4328040	SEPARATOR FUEL WATER	16,656.00	5	83,280.00	84212300	18%	14,990.40
2	5279609	FILTER FUEL	5,033.00	20	1,00,660.00	84212300	18%	18,118.80
3	5417137	FILTER FUEL	14,897.00	20	2,97,940.00	84212300	18%	53,629.20
4	4367100	FILTER LUBRICATING OIL	7,294.00	40	2,91,760.00	84212300	18%	52,516.80
5	4072352	RESISTOR CORROSION	413.00	10	4,130.00	84213100	18%	743.40
6	AX1013508	RADIWASH	5,096.00	2	10,192.00	84213100	18%	1,834.56
7	3816985	KIT COOLANT TEST	1,195.00	10	11,950.00	38200000	18%	2,151.00
8	3816981	PRE MIXED COOLANT	62,201.00	1	62,201.00	38200000	18%	11,196.18
9	4957708	ELEMENT AIR CLEANER OUTER	14,274.00	10	1,42,740.00	84213100	18%	25,693.20
10	4957709	ELEMENT AIR CLEANER INNER	9,074.00	10	90,740.00	84213100	18%	16,333.20
11	5412987	BELT V RIBBED (Alternator)	1,745.00	1	1,745.00	40103190	18%	314.10
12	CHF0101210	ELEMENT (HYDRAULIC)	1,477.00	72	1,06,344.00	84314200	18%	19,141.92
13	CHS0115175	O-RING (HYDRAULIC)	991.00	72	71,352.00	87089900	28%	19,978.56
14	817PH92916	ELEMENT (DRAIN - TRAVEL MOTOR & SW JT)	10,364.00	9	93,276.00	84314200	18%	16,789.68
15	817PH92949	ELEMENT (SWING BOOST FILTER)	8,204.00	9	73,836.00	84212190	18%	13,290.48
16	817PH92713	O-RING	1,262.00	9	11,358.00	84314200	18%	2,044.44
17	817PH92876	O-RING	1,045.00	9	9,405.00	84314200	18%	1,692.90
18	817PH93012	O-RING	927.00	9	8,343.00	40169320	18%	1,501.74

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GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 3RD YEAR OF OPERATION PER EQUIPMENT


Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 3rd year / Eqpt	Extended Price for 3rd Year	HSN Code	GST Rate	GST Value
19	4196015250	BREATHER ELEMENT (HYDRAULIC TANK)	6,990.00	9	62,910.00	87089900	28%	17,614.80
20	817E113016	BELT FAN	7,081.00	5	35,405.00	84314200	18%	6,372.90
21	958AC61203	V-BELT AC	1,183.00	5	5,915.00	84314200	18%	1,064.70
22	817PH92835	FILTER ELEMENT-PTO LUBE	22,370.00	5	1,11,850.00	84212190	18%	20,133.00
23	817PH92673	FILTER ELEMENT-PILOT	39,251.00	1	39,251.00	84212190	18%	7,065.18
24	175HS02032	FLUSHING HYD ELEMENT	51,690.00	4	2,06,760.00	84212190	18%	37,216.80
25	07002F2434	O-RING (PTO DRAIN PLUG)	1,222.00	9	10,998.00	84314200	18%	1,979.64
26	CHS0303634	O-RING (FINAL DRIVE DRAIN PLUG)	220.00	8	1,760.00	84834000	18%	316.80
27	C600230002	ENGINE OIL E15W40-40/C14/C14 PLUS PER LTR	208.00	1470	3,05,760.00	84314200	18%	55,036.80
28	C600243000	HYDRAULIC OIL SAE30CD PER LTR	309.00	2520	7,78,680.00	27101980	18%	1,40,162.40
29	C600304000	GREASE NLGI-EP2 PER KG	416.00	1456	6,05,696.00	27101990	18%	1,09,025.28
30	817FSB0091	TOOTH POINT KIT- 5 CuM	1,24,879.00	4	4,99,516.00	84314200	18%	89,912.88
31	817BHB0087	SIDE CUTTER KIT-5 CuM	2,04,807.00	2	4,09,614.00	84314200	18%	73,730.52
32	175BH13158	WEAR PLATE	857.00	36	30,852.00	84314200	18%	5,553.36
33	171FS11736	WEAR PLATE	923.00	45	41,535.00	84314200	18%	7,476.30
34	175BH12153	WEAR PLATE	18,191.00	1	18,191.00	84314200	18%	3,274.38
35	175BH12137	WEAR PLATE	13,789.00	4	55,156.00	84314200	18%	9,928.08
36	175BH12112	WEAR PLATE	14,872.00	1	14,872.00	84314200	18%	2,676.96

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Nagpur




GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 3RD YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 3rd year / Eqpt	Extended Price for 3rd Year	HSN Code	GST Rate	GST Value
37	175BH13093	WEAR PLATE	20,437.00	2	40,874.00	84314200	18%	7,357.32
38	175BH12145	WEAR PLATE	20,203.00	1	20,203.00	84314200	18%	3,636.54
39	CHS0610100	SEAL, OIL	3,888.00	1	3,888.00	84314200	18%	699.84
40	CBB4006213	BEARING	8,277.00	1	8,277.00	84314200	18%	1,489.86
41	817EC62872	HOSE	4,244.00	1	4,244.00	40169990	18%	763.92
42	176EC60833	HOSE	2,016.00	2	4,032.00	84314200	18%	725.76
43	817EC63022	HOSE	6,101.00	1	6,101.00	40169990	18%	1,098.18
44	135EC61007	HOSE	125.00	1	125.00	40161000	18%	22.50
45	CHH3120911	HOSE	6,202.00	1	6,202.00	84314200	18%	1,116.36
46	817PH95898	HOSE ASSY	11,367.00	1	11,367.00	84314200	18%	2,046.06
47	817PT90794	HOSE ASSY	2,918.00	1	2,918.00	40091100	18%	525.24
48	CHS0311423	O-RING	432.00	2	864.00	84314200	18%	155.52
49	182PH63033	O-RING	333.00	1	333.00	40169320	18%	59.94
50	CHH2200816	HOSE ASSY	1,621.00	1	1,621.00	84314200	18%	291.78
51	182PH63017	O-RING	317.00	1	317.00	84314200	18%	57.06
52	CHS0115170	O-RING	1,252.00	1	1,252.00	40169320	18%	225.36
53	CHH2200812	HOSE ASSY	1,602.00	1	1,602.00	40092200	18%	288.36
54	CET0401175	TERMINAL (+)	319.00	2	638.00	85381010	18%	114.84

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GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 3RD YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 3rd year / Eqpt	Extended Price for 3rd Year	HSN Code	GST Rate	GST Value
55	CET0402160	TERMINAL (-)	319.00	2	638.00	84314200	18%	114.84
56	51Z9901546	POTENTIOMETER	59,277.00	1	59,277.00	84099990	28%	16,597.56
57	985EG81883	CIRCUIT BREAKER, 5A	810.00	1	810.00	87089900	28%	226.80
58	985EG81891	CIRCUIT BREAKER, 10A	667.00	7	4,669.00	87089900	28%	1,307.32
59	985EG81912	CIRCUIT BREAKER, 20A	2,086.00	8	16,688.00	87089900	28%	4,672.64
60	955EG11274	POWER RELAY	1,175.00	6	7,050.00	87089900	28%	1,974.00
61	171HM92684	OIL SEAL	8,570.00	1	8,570.00	40169320	18%	1,542.60
62	175UCSET01	BE1000-1 UNDERCARRIAGE SET	68,42,805.00	1	68,42,805.00	84314200	18%	12,31,704.90
63	125EG91672	SWITCH	6,119.00	1	6,119.00	84314200	18%	1,101.42
64	183OS90024	OPERATOR SEAT ASSY	38,192.00	1	38,192.00	84314200	18%	6,874.56
65	817HM91213R	RECON SWING PUMP ASSY AGAINST FAILED PUMP	7,82,775.00	1	7,82,775.00	84314200	18%	1,40,899.50
66	817CV91001	SEAL KIT, CONTROL VALVE	5,246.00	16	83,936.00	40169330	18%	15,108.48
67	817HM01027R	RECON HYDRAULIC PUMP AGAINST FAILED PUMP	13,15,000.00	2	26,30,000.00	84314200	18%	4,73,400.00
68	184PT90019	JOY STICK RH	1,42,331.00	1	1,42,331.00	84314200	18%	25,619.58
69	184PT90002	JOY STICK LH	1,42,331.00	1	1,42,331.00	84314200	18%	25,619.58
70	156PB94917	PLUNGER KIT	26,288.00	4	1,05,152.00	84819090	18%	18,927.36
71	175HS00019	SEAL KIT, SWIVEL JOINT	98,081.00	1	98,081.00	84314200	18%	17,654.58
72	CCC0906000	COUPLING ASSY	1,36,330.00	1	1,36,330.00	84314200	18%	24,539.40

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GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 3RD YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 3rd year / Eqpt	Extended Price for 3rd Year	HSN Code	GST Rate	GST Value
73	CCC0956000	GASKET	10,164.00	2	20,328.00	84314200	18%	3,659.04
74	817PH94811	CLIP	368.00	8	2,944.00	84314200	18%	529.92
75	175BH51163	BUSHING	27,337.00	2	54,674.00	84314200	18%	9,841.32
76	175FS61569	SEAL	14,346.00	4	57,384.00	84314200	18%	10,329.12
77	175BH91047	SEAL	10,259.00	2	20,518.00	84314200	18%	3,693.24
78	175BH02036	PIN	1,01,895.00	1	1,01,895.00	84314200	18%	18,341.10
79	CHH1602416	HOSE ASSY	31,171.00	1	31,171.00	40091100	18%	5,610.78
80	CHH1602016	HOSE ASSY	18,981.00	1	18,981.00	84314200	18%	3,416.58
81	175HC02488	SEAL, DUST	5,551.00	1	5,551.00	39269099	18%	999.18
TOTAL VALUE FOR 3RD YEAR					1,62,40,031.00			29,45,481.18

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Annexure- 1 (d)

GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 4TH YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 4th year / Eqpt	Extended Price for 4th Year	HSN Code	GST Rate	GST Value
1	4328040	SEPARATOR FUEL WATER	16,656.00	5	83,280.00	84212300	18%	14,990.40
2	5279609	FILTER FUEL	5,033.00	20	1,00,660.00	84212300	18%	18,118.80
3	5417137	FILTER FUEL	14,897.00	20	2,97,940.00	84212300	18%	53,629.20
4	4367100	FILTER LUBRICATING OIL	7,294.00	40	2,91,760.00	84212300	18%	52,516.80
5	4072352	RESISTOR CORROSION	413.00	10	4,130.00	84213100	18%	743.40
6	AX1013508	RADIWASH	5,096.00	2	10,192.00	84213100	18%	1,834.56
7	3816985	KIT COOLANT TEST	1,195.00	10	11,950.00	38200000	18%	2,151.00
8	3816981	PRE MIXED COOLANT	62,201.00	1	62,201.00	38200000	18%	11,196.18
9	4957708	ELEMENT AIR CLEANER OUTER	14,274.00	10	1,42,740.00	84213100	18%	25,693.20
10	4957709	ELEMENT AIR CLEANER INNER	9,074.00	10	90,740.00	84213100	18%	16,333.20
11	5412987	BELT V RIBBED (Alternator)	1,745.00	1	1,745.00	40103190	18%	314.10
12	CHF0101210	ELEMENT (HYDRAULIC)	1,521.00	72	1,09,512.00	84314200	18%	19,712.16
13	CHS0115175	O-RING (HYDRAULIC)	1,021.00	72	73,512.00	87089900	28%	20,583.36
14	817PH92916	ELEMENT (DRAIN - TRAVEL MOTOR & SW JT)	10,675.00	9	96,075.00	84314200	18%	17,293.50
15	817PH92949	ELEMENT (SWING BOOST FILTER)	8,450.00	9	76,050.00	84212190	18%	13,689.00
16	817PH92713	O-RING	1,300.00	9	11,700.00	84314200	18%	2,106.00
17	817PH92876	O-RING	1,076.00	9	9,684.00	84314200	18%	1,743.12
18	817PH93012	O-RING	955.00	9	8,595.00	40169320	18%	1,547.10
19	4196015250	BREATHER ELEMENT (HYDRAULIC TANK)	7,200.00	9	64,800.00	87089900	28%	18,144.00
20	817E113016	BELT FAN	7,293.00	5	36,465.00	84314200	18%	6,563.70

GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 4TH YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

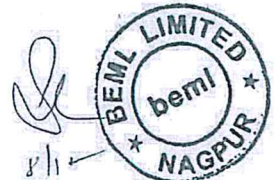
Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 4th year/ Eqpt	Extended Price for 4th Year	HSN Code	GST Rate	GST Value
21	958AC61203	V-BELT AC	1,218.00	5	6,090.00	84314200	18%	1,096.20
22	817PH92835	FILTER ELEMENT-PTO LUBE	23,041.00	5	1,15,205.00	84212190	18%	20,736.90
23	817PH92673	FILTER ELEMENT-PILOT	40,429.00	2	80,858.00	84212190	18%	14,554.44
24	175HS02032	FLUSHING HYD ELEMENT	53,241.00	4	2,12,964.00	84212190	18%	38,333.52
25	07002F2434	O-RING (PTO DRAIN PLUG)	1,259.00	9	11,331.00	84314200	18%	2,039.58
26	CHS0303634	O-RING (FINAL DRIVE DRAIN PLUG)	227.00	12	2,724.00	84834000	18%	490.32
27	C600230002	ENGINE OIL E15W40-40/C14/C14 PLUS PER LTR	218.00	1470	3,20,460.00	84314200	18%	57,682.80
28	C600243000	HYDRAULIC OIL SAE30CD PER LTR	324.00	2310	7,48,440.00	27101980	18%	1,34,719.20
29	C600304000	GREASE NLGI-EP2 PER KG	437.00	1456	6,36,272.00	27101990	18%	1,14,528.96
30	817FSB0091	TOOTH POINT KIT- 5 CuM	1,28,625.00	4	5,14,500.00	84314200	18%	92,610.00
31	817BHB0087	SIDE CUTTER KIT-5 CuM	2,10,951.00	2	4,21,902.00	84314200	18%	75,942.36
32	175BHB0083	HARD FACED B/H 5 CuM BUCKET ASSY AGAINST EXCHANGE	38,00,000.00	1	38,00,000.00	84314200	18%	6,84,000.00
33	175BH13158	WEAR PLATE	883.00	36	31,788.00	84314200	18%	5,721.84
34	171FS11736	WEAR PLATE	951.00	45	42,795.00	84314200	18%	7,703.10
35	175BH12153	WEAR PLATE	18,737.00	1	18,737.00	84314200	18%	3,372.66
36	175BH12137	WEAR PLATE	14,203.00	4	56,812.00	84314200	18%	10,226.16
37	175BH12112	WEAR PLATE	15,318.00	1	15,318.00	84314200	18%	2,757.24
38	175BH13093	WEAR PLATE	21,050.00	2	42,100.00	84314200	18%	7,578.00
39	175BH12145	WEAR PLATE	20,809.00	1	20,809.00	84314200	18%	3,745.62
40	175EI02003	CUSHION	20,275.00	12	2,43,300.00	40161000	18%	43,794.00

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WCL

Nagpur



GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 4TH YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 4th year / Eqpt	Extended Price for 4th Year	HSN Code	GST Rate	GST Value
41	817E102161	RECON ENGINE ASSY QSK19C AGAINST OLD ENGINE	44,87,910.00	1	44,87,910.00	84089900	28%	12,56,614.80
42	156PM91122	HOSE ASSY	606.00	1	606.00	40091100	18%	109.08
43	CLN0200000	VALVE(RELIEF)	220.00	1	220.00	84099900	28%	61.60
44	CHS0311423	O-RING	445.00	2	890.00	84314200	18%	160.20
45	182PH63033	O-RING	343.00	1	343.00	40169320	18%	61.74
46	182PH63017	O-RING	327.00	1	327.00	84314200	18%	58.86
47	CHS0115170	O-RING	1,290.00	1	1,290.00	40169320	18%	232.20
48	CEB0208160	MAINTENANCE FREE BATTERY, 12V, 160AH	39,119.00	2	78,238.00	84314200	18%	14,082.84
49	125IP81246	SWITCH, ON/OFF	7,835.00	4	31,340.00	84314200	18%	5,641.20
50	817EG80013	DPDT SWITCH	2,585.00	4	10,340.00	84314200	18%	1,861.20
51	CEK0120000	KEY SWITCH	22,272.00	1	22,272.00	85365090	18%	4,008.96
52	125EG81928	PUSH BUTTON, START	2,499.00	1	2,499.00	85365010	28%	699.72
53	125EG81936	PUSH BUTTON, STOP	2,499.00	1	2,499.00	84314200	18%	449.82
54	817EG80573	TOGGLE SWITCH	1,258.00	1	1,258.00	84314200	18%	226.44
55	125EG91672	LIMIT SWITCH	6,303.00	1	6,303.00	84314200	18%	1,134.54
56	817EG90285	RELAY	3,679.00	2	7,358.00	84314200	18%	1,324.44
57	985EG81883	CIRCUIT BREAKER, 5A	834.00	1	834.00	87089900	28%	233.52
58	985EG81891	CIRCUIT BREAKER, 10A	687.00	7	4,809.00	87089900	28%	1,346.52
59	985EG81912	CIRCUIT BREAKER, 20A	2,149.00	8	17,192.00	87089900	28%	4,813.76
60	955EG11274	POWER RELAY	1,210.00	6	7,260.00	87089900	28%	2,032.80




GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 4TH YEAR OF OPERATION PER EQUIPMENT

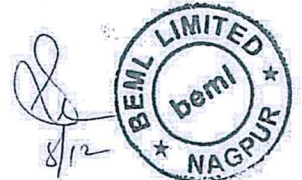
Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 4th year/ Eqpt	Extended Price for 4th Year	HSN Code	GST Rate	GST Value
61	817PH94211	HOSE ASSY	1,917.00	1	1,917.00	40092200	18%	345.06
62	817PO02287	HOSE ASSY	2,022.00	1	2,022.00	84314200	18%	363.96
63	817PO02302	HOSE ASSY	2,131.00	1	2,131.00	84314200	18%	383.58
64	817PO02279	HOSE ASSY	1,552.00	1	1,552.00	84314200	18%	279.36
65	817PO02295	HOSE ASSY	1,913.00	1	1,913.00	84314200	18%	344.34
66	817PO02262	HOSE ASSY	2,513.00	1	2,513.00	84314200	18%	452.34
67	817PO62251	HOSE ASSY	6,010.00	1	6,010.00	84314200	18%	1,081.80
68	817PO02343	HOSE ASSY	8,632.00	1	8,632.00	84314200	18%	1,553.76
69	817PO02327	HOSE ASSY	1,410.00	1	1,410.00	84314200	18%	253.80
70	817PO02351	HOSE ASSY	8,305.00	1	8,305.00	84314200	18%	1,494.90
71	817PO02319	HOSE ASSY	2,381.00	1	2,381.00	84314200	18%	428.58
72	817PAB0028	HOSE KIT, WORK ATTACHMENT	3,62,472.00	1	3,62,472.00	40091100	18%	65,244.96
73	156PM91309	PPC VALVE TRAVEL	86,740.00	1	86,740.00	84812000	18%	15,613.20
74	817MH91302	PILOT PUMP	1,28,689.00	1	1,28,689.00	84136010	28%	36,032.92
75	156PB95013	PLUNGER KIT	40,209.00	4	1,60,836.00	84819090	18%	28,950.48
76	182KIT0001	O-RING KIT (K1)	1,47,441.00	1	1,47,441.00	84314200	18%	26,539.38
77	175HC00032	SEAL KIT-BOOM CYL	2,43,532.00	2	4,87,064.00	40169990	18%	87,671.52
78	175HC00024	SEAL KIT-ARM CYL	1,76,117.00	1	1,76,117.00	84314200	18%	31,701.06
79	175HC00016	SEAL KIT-BUCKET CYL	1,79,892.00	1	1,79,892.00	40169990	18%	32,380.56
80	175BH02093	PIN	72,270.00	1	72,270.00	84314200	18%	13,008.60

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GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 4TH YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 4th year / Eqpt	Extended Price for 4th Year	HSN Code	GST Rate	GST Value
81	175BH02085	PIN	2,04,181.00	1	2,04,181.00	84314200	18%	36,752.58
82	175FS02016	PIN	52,017.00	2	1,04,034.00	84314200	18%	18,726.12
83	175BH02052	PIN	1,06,105.00	1	1,06,105.00	84314200	18%	19,098.90
84	175BH02011	PIN	56,357.00	2	1,12,714.00	84314200	18%	20,288.52
85	175BH51147	BUSHING	29,170.00	2	58,340.00	84314200	18%	10,501.20
86	175BH13458	BUSHING	31,908.00	4	1,27,632.00	84314200	18%	22,973.76
87	175BH53204	BUSHING	52,004.00	2	1,04,008.00	84314200	18%	18,721.44
88	175FS61569	SEAL	14,776.00	6	88,656.00	84314200	18%	15,958.08
89	175BH91047	SEAL	10,567.00	4	42,268.00	84314200	18%	7,608.24
90	175BH02044	SEAL	20,240.00	2	40,480.00	84314200	18%	7,286.40
91	CHH1602416	HOSE ASSY	32,106.00	1	32,106.00	40091100	18%	5,779.08
92	CHH1602016	HOSE ASSY	19,550.00	1	19,550.00	84314200	18%	3,519.00
93	171HC92016	BUSHING	1,81,931.00	2	3,63,862.00	84314200	18%	65,495.16
94	171HC61917	SEAL DUST	12,170.00	8	97,360.00	84129090	18%	17,524.80
95	CHH0702434	HOSE ASSY	32,850.00	1	32,850.00	40092200	18%	5,913.00
96	175HC02488	SEAL, DUST	5,718.00	4	22,872.00	39269099	18%	4,116.96
TOTAL VALUE FOR 4TH YEAR					1,70,07,249.00			35,40,077.32

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Annexure- 1 (e)

GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 5TH YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 5th year / Eqpt	Extended Price for 5th Year	HSN Code	GST Rate	GST Value
1	4328040	SEPARATOR FUEL WATER	16,656.00	5	83,280.00	84212300	18%	14,990.40
2	5279609	FILTER FUEL	5,033.00	20	1,00,660.00	84212300	18%	18,118.80
3	5417137	FILTER FUEL	14,897.00	20	2,97,940.00	84212300	18%	53,629.20
4	4367100	FILTER LUBRICATING OIL	7,294.00	40	2,91,760.00	84212300	18%	52,516.80
5	4072352	RESISTOR CORROSION	413.00	10	4,130.00	84213100	18%	743.40
6	AX1013508	RADIWASH	5,096.00	2	10,192.00	84213100	18%	1,834.56
7	3816985	KIT COOLANT TEST	1,195.00	10	11,950.00	38200000	18%	2,151.00
8	3816981	PRE MIXED COOLANT	62,201.00	1	62,201.00	38200000	18%	11,196.18
9	4957708	ELEMENT AIR CLEANER OUTER	14,274.00	10	1,42,740.00	84213100	18%	25,693.20
10	4957709	ELEMENT AIR CLEANER INNER	9,074.00	10	90,740.00	84213100	18%	16,333.20
11	5412987	BELT V RIBBED (Alternator)	1,745.00	1	1,745.00	40103190	18%	314.10
12	CHF0101210	ELEMENT (HYDRAULIC)	1,567.00	72	1,12,824.00	84314200	18%	20,308.32
13	CHS0115175	O-RING (HYDRAULIC)	1,052.00	72	75,744.00	87089900	28%	21,208.32
14	817PH92916	ELEMENT (DRAIN - TRAVEL MOTOR & SW JT)	10,995.00	9	98,955.00	84314200	18%	17,811.90
15	817PH92949	ELEMENT (SWING BOOST FILTER)	8,704.00	9	78,336.00	84212190	18%	14,100.48
16	817PH92713	O-RING	1,339.00	9	12,051.00	84314200	18%	2,169.18
17	817PH92876	O-RING	1,108.00	9	9,972.00	84314200	18%	1,794.96
18	817PH93012	O-RING	984.00	9	8,856.00	40169320	18%	1,594.08
19	4196015250	BREATHER ELEMENT (HYDRAULIC TANK)	7,416.00	9	66,744.00	87089900	28%	18,688.32

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GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 5TH YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 5th year / Eqpt	Extended Price for 5th Year	HSN Code	GST Rate	GST Value
20	817EI13016	BELT FAN	7,512.00	5	37,560.00	84314200	18%	6,760.80
21	958AC61203	V-BELT AC	1,255.00	5	6,275.00	84314200	18%	1,129.50
22	817PH92835	FILTER ELEMENT-PTO LUBE	23,732.00	5	1,18,660.00	84212190	18%	21,358.80
23	817PH92673	FILTER ELEMENT-PILOT	41,642.00	1	41,642.00	84212190	18%	7,495.56
24	175HS02032	FLUSHING HYD ELEMENT	54,838.00	4	2,19,352.00	84212190	18%	39,483.36
25	07002F2434	O-RING (PTO DRAIN PLUG)	1,297.00	9	11,673.00	84314200	18%	2,101.14
26	CHS0303634	O-RING (FINAL DRIVE DRAIN PLUG)	234.00	8	1,872.00	84834000	18%	336.96
27	C600230002	ENGINE OIL E15W40-40/C14/C14 PLUS PER LTR	229.00	1470	3,36,630.00	84314200	18%	60,593.40
28	C600243000	HYDRAULIC OIL SAE30CD PER LTR	340.00	2310	7,85,400.00	27101980	18%	1,41,372.00
29	C600304000	GREASE NLG1EP2 PER KG	459.00	1456	6,68,304.00	27101990	18%	1,20,294.72
30	817FSB0091	TOOTH POINT KIT- 5 CuM	1,32,484.00	4	5,29,936.00	84314200	18%	95,388.48
31	817BHB0087	SIDE CUTTER KIT-5 CuM	2,17,280.00	2	4,34,560.00	84314200	18%	78,220.80
32	175BH13158	WEAR PLATE	909.00	36	32,724.00	84314200	18%	5,890.32
33	171FS11736	WEAR PLATE	980.00	45	44,100.00	84314200	18%	7,938.00
34	175BH12153	WEAR PLATE	19,299.00	1	19,299.00	84314200	18%	3,473.82
35	175BH12137	WEAR PLATE	14,629.00	4	58,516.00	84314200	18%	10,532.88
36	175BH12112	WEAR PLATE	15,778.00	1	15,778.00	84314200	18%	2,840.04
37	175BH13093	WEAR PLATE	21,682.00	2	43,364.00	84314200	18%	7,805.52

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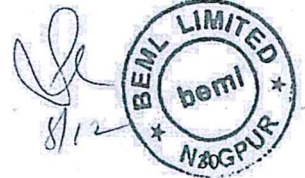
GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 5TH YEAR OF OPERATION PER EQUIPMENT

Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

Sl.No	Part No	Description	Unit Sale Price	Total Qty reqd for 5th year/ Eqpt	Extended Price for 5th Year	HSN Code	GST Rate	GST Value
38	175BH12145	WEAR PLATE	21,433.00	1	21,433.00	84314200	18%	3,857.94
39	CHS0610100	SEAL, OIL	4,125.00	1	4,125.00	84314200	18%	742.50
40	CBB4006213	BEARING	8,781.00	1	8,781.00	84314200	18%	1,580.58
41	817EC62872	HOSE	4,502.00	1	4,502.00	40169990	18%	810.36
42	176EC60833	HOSE	2,138.00	2	4,276.00	84314200	18%	769.68
43	817EC63022	HOSE	6,473.00	1	6,473.00	40169990	18%	1,165.14
44	135EC61007	HOSE	133.00	1	133.00	40161000	18%	23.94
45	CHH3120911	HOSE	6,580.00	1	6,580.00	84314200	18%	1,184.40
46	817PH95898	HOSE ASSY	12,059.00	1	12,059.00	84314200	18%	2,170.62
47	817PT90794	HOSE ASSY	3,096.00	1	3,096.00	40091100	18%	557.28
48	CHS0311423	O-RING	458.00	2	916.00	84314200	18%	164.88
49	182PH63033	O-RING	353.00	1	353.00	40169930	18%	63.54
50	CHH2200816	HOSE ASSY	1,720.00	1	1,720.00	84314200	18%	309.60
51	182PH63017	O-RING	337.00	1	337.00	84314200	18%	60.66
52	CHS0115170	O-RING	1,329.00	1	1,329.00	40169930	18%	239.22
53	CHH2200812	HOSE ASSY	1,700.00	1	1,700.00	40092200	18%	306.00
54	CET0401175	TERMINAL (+)	339.00	2	678.00	85381010	18%	122.04
55	CET0402160	TERMINAL (-)	339.00	2	678.00	84314200	18%	122.04

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GUARANTEED SPARES & CONSUMABLES REQUIRED FOR 5TH YEAR OF OPERATION PER EQUIPMENT

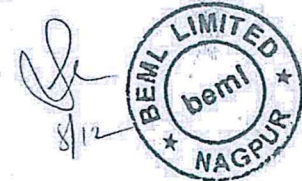
Model: BE1000-1 Hydraulic Excavator

Customer : M/s. WCL

SI.No	Part No	Description	Unit Sale Price	Total Qty reqd for 5th year / Eqpt	Extended Price for 5th Year	HSN Code	GST Rate	GST Value
56	985EG81883	CIRCUIT BREAKER, 5A	859.00	1	859.00	87089900	28%	240.52
57	985EG81891	CIRCUIT BREAKER, 10A	708.00	7	4,956.00	87089900	28%	1,387.68
58	985EG81912	CIRCUIT BREAKER, 20A	2,213.00	8	17,704.00	87089900	28%	4,957.12
59	955EG11274	POWER RELAY	1,246.00	6	7,476.00	87089900	28%	2,093.28
60	125EG91672	SWITCH	6,492.00	1	6,492.00	84314200	18%	1,168.56
61	156PB95013	PLUNGER KIT	41,415.00	4	1,65,660.00	84819090	18%	29,818.80
62	156PB94917	PLUNGER KIT	27,889.00	4	1,11,556.00	84819090	18%	20,080.08
63	175BH91047	SEAL	10,884.00	2	21,768.00	84314200	18%	3,918.24
64	175BH02036	PIN	1,08,101.00	1	1,08,101.00	84314200	18%	19,458.18
65	CHH1602416	HOSE ASSY	33,069.00	1	33,069.00	40091100	18%	5,952.42
66	CHH1602016	HOSE ASSY	20,137.00	1	20,137.00	84314200	18%	3,624.66
TOTAL VALUE FOR 5TH YEAR					55,43,412.00			10,15,162.46

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BANK MANDATE FORM OF THE SUPPLIER FOR BANK DETAILS

ANNEXURE - 2

EFT MANDATE FORM
(Account/s Information form)

ELECTRONIC CLEARING SERVICE (CREDIT CLEARING) / REAL TIME GROSS SETTLEMENT (RTGS)/ NATIONAL ELECTRONIC TRANSFER (NEFT) / INTRA BANK ACCOUNT TRANSFER FACILITY FOR RECEIVING PAYMENTS:

A. DETAILS OF ACCOUNT HOLDER:

NAME OF ACCOUNT HOLDERER / FIRM	BEML LIMITED
COMPLETE CONTACT ADDRESS	33, CEMENT ROAD, SHIVAJI NAGAR, NAGPUR - 440010
MOBILE NUMBER / PH NO	9423683399
E-MAIL	mn@beml.co.in

B. BANK ACCOUNT DETAILS:

ACCOUNT NAME (Name appearing in your Cheque Book)	BEML LIMITED
BRANCH NAME WITH COMPLETE ADDRESS,	STATE BANK OF INDIA, MAIN BRANCH NAGPUR, KINGSWAY, NAGPUR -440001
BRANCH CODE	00432
COMPLETE BANK ACCOUNT NUMBER (Please note that the Bank Account of the Beneficiaries (vendor) must be in the name of the Firm as appeared in the tender.	11172255258
IFSC CODE	SBIN0000432
TYPE OF ACCOUNT (SB/CURRENT/CASH CREDIT)	CURRENT ACCOUNT
MICR CODE OF BANK	440002002

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge responsibility expected or me as a participant under the scheme.



Date: 31.01.2022

(.....) *P. Acharya*
Signature of Vendor

Certified that the particulars furnished above are correct as per our records.

[Signature]
नरेश कुमार / NARESH KUMAR
उप महाप्रबंधक (विपणन) / Dy. General Manager (Marketing)
बीएमएल लिमिटेड / BEML LIMITED
4 वां तल, यूनियटी बिल्डिंग्स, जे.सी. रोड
4th Floor, Unity Buildings, J.C. Road
बंगलूरु / BENGALURU - 560 002.

(Bank's Stamp)
[Signature]
Signature of Authorized signatory of the Bank

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ANNEXURE - 3

Security Deposit Bank Guarantee Format

..... (Name & address of the Purchaser Company)

**Re : Bank Guarantee in respect of Notification of Award / Purchase Order vide no. dated
..... between (Name of Purchaser Company) and (Name of Supplier Company)**

Messers a Company / Firm having its office at
No. (hereinafter called 'the Contractor') has received the
Notification of Award / Purchase Order vide no. dated (hereinafter called 'the said
Agreement') with (Name of the Purchaser Company) (hereinafter called
'the Company') to supply stores/ materials amounting to Rs. on the
terms and conditions contained in the said Notification of Award / Purchase Order.

The (Name of the Bank) (hereinafter called 'the Bank') having its office
at has at the request of the Contractor agreed to give the guarantee as hereinafter
contained.

We (Name of the Bank) do hereby unconditionally agree with the Company
that if the Contractor shall in any way fail to observe or perform the terms and conditions of the said
Agreement or shall commit any breach of its obligations thereunder, the Bank shall on demand and
without any objection or demur pay to the Company, the said sum of Rs. or any portion
thereof without requiring the Company to have recourse to any legal remedy that may be available to it
to compel the Bank to pay the same or calling on the Company to compel such payment by the
Contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the Company and as
regards the amount payable by the Bank under this guarantee. The Bank shall not be entitled to withhold
payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum
of the amount or that any arbitration proceeding or legal proceeding is pending between the Company
and the Contractor regarding the claim.

We, the Bank, further agree that the guarantee shall come into force from the date hereof and shall
remain in full force and effect till the period that will be taken for the performance of the said
Agreement which is likely to be the day of but if the period of Agreement is extended
either pursuant to the provisions in the said Agreement or by mutual agreement between the Contractor
and the Company, the Bank shall renew the period of the guarantee failing which it shall pay to the
Company the said sum of Rs., or such lesser amount out of the said sum of Rs. as
maybe due to the Company and as the Company may demand. This guarantee shall remain in force until
the dues of the Company in respect of the said sum of Rs. are fully satisfied and the Company
certifies that the Agreement has been fully carried out by the contractor and discharges the guarantee.

The Bank further agrees with the Company that the Company shall have the fullest liberty without the
consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms
and conditions of the said Agreement or to extend the time for performance of the said Agreement from
time to time or to postpone for any time or from time to time any of the powers exercisable by the

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SO no: 12000110322125 dt. 19-12-2022 on M/s BEML Limited

Company against the contractor and to forbear to enforce any of the terms and conditions relating to the said Agreement and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the contractor or through any forbearance, act or omission on the part of the Company or any indulgence by the Company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of relieving or discharging the Guarantor.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the Company the said sum of Rs..... or such lesser sum as may then be due to the Company and as the Company may require.

Notwithstanding anything herein contained the liability of the Bank under this guarantee is restricted to Rs..... only. The guarantee shall remain in force till the..... day of 20... and unless the guarantee is renewed or a claim is preferred against the Bank within the validity period and/or the claim period from the said date, all rights of the Company under this guarantee shall cease and the Bank shall be released and discharged from all liability hereunder except as provided in the preceding clause.

The Bank Guarantee is operational for all purposes at Nagpur Branch, Maharashtra (Address & Branch Code ----

The Bank has under its constitution power to give this guarantee and..... [(Name of the person(s)] who have signed it on behalf of the Bank has authority to do so.

Dated this.....day of20.....

Place.....

Signature of the authorized person(s)

For and on behalf of the Bank.

The details of beneficiary bank for sending details of BG under SFMS Platform is furnished below

Name of beneficiary and details	
Name	Western Coalfields ltd
Area	Head Quarter
Bank A/c No: / Cust ID of beneficiary	Current Account no: 005905018053; Customer Id: 556096497 ; ICICI Bank Ltd, Commercial Banking, 9C/A& 9C/B, Ground Floor, Shriram Towers, LIC Square, Nagpur - 440001, Maharashtra
IFSC code	ICIC0000059
Bank Manager Name & Ph no:	Kaoser Khan Ph n: 0712-6627390
BG ADVISING MESSAGE - 760COV / 767COV via SFMS	
Field Number	Particulars
7035	ICICI0000059
7037	WCL556096497

Dated this.....Day of.....20...

Place

Signature of the authorized person

For and on behalf of the Bank

Handwritten signature

Handwritten signature

ANNEXURE - 4

Performance Bank Guarantee Format

..... (Name & address of the concerned subsidiary
..... Company / Purchaser Company)

Re: Bank Guarantee in respect of Agreement / Contract vide no. dated between Coal India Ltd. on behalf of (Name of concerned subsidiary Company) and (Name of Supplier Company){applicable for CIL Contracts}

Messers a Company / Firm having its office at No. (hereinafter called 'the Contractor') has entered into the Agreement / Contract / Purchase Order vide no dated (hereinafter called 'the said Agreement') with Coal India Limited, Kolkata on behalf of / Purchaser Company (Name of the concerned subsidiary Company) (hereinafter called 'the Company') to supply stores/ materials amounting to Rs. on the terms and conditions contained in the said Agreement.

The (Name of the Bank) (hereinafter called 'the Bank') having its office at has at the request of the Contractor agreed to give the guarantee as hereinafter contained.

We (Name of the Bank) do hereby unconditionally agree with the Company that if the Contractor shall in any way fail to observe or perform the terms and conditions of the said Agreement or shall commit any breach of its obligations thereunder, the Bank shall on demand and without any objection or demur pay to the Company, the said sum of Rs. or any portion thereof without requiring the Company to have recourse to any legal remedy that may be available to it to compel the Bank to pay the same or calling on the Company to compel such payment by the Contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the Company and as regards the amount payable by the Bank under this guarantee. The Bank shall not be entitled to withhold payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between the Company and the Contractor regarding the claim.

We, the Bank, further agree that the guarantee shall come into force from the date hereof and shall remain in full force and effect till the period that will be taken for the performance of the said Agreement which is likely to be the day of but if the period of Agreement is extended either pursuant to the provisions in the said Agreement or by mutual agreement between the Contractor and the Company, the Bank shall renew the period of the guarantee failing which it shall pay to the Company the said sum of Rs., or such lesser amount out of the said sum of Rs. as maybe due to the Company and as the Company may demand. This guarantee shall remain in force until the dues of the Company in respect of the said sum of Rs. are fully satisfied and the Company certifies that the Agreement has been fully carried out by the contractor and discharges the guarantee.

The Bank further agrees with the Company that the Company shall have the fullest liberty without the consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend the time for performance of the said Agreement from time to time or to postpone for any time or from time to time any of the powers exercisable by the

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Company against the contractor and to forbear to enforce any of the terms and conditions relating to the said Agreement and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the contractor or through any forbearance, act or omission on the part of the Company or any indulgence by the Company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of relieving or discharging the Guarantor.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the Company the said sum of Rs..... or such lesser sum as may then be due to the Company and as the Company may require.

Notwithstanding anything herein contained the liability of the Bank under this guarantee is restricted to Rs.....only. The guarantee shall remain in force till the.....day of20... and unless the guarantee is renewed or a claim is preferred against the Bank within the validity period and/or the claim period from the said date, all rights of the Company under this guarantee shall cease and the Bank shall be released and discharged from all liability hereunder except as provided in the preceding clause.

The Bank Guarantee is operational for all purposes at Nagpur Branch, Maharashtra (Address & Branch Code ----)

The Bank has under its constitution power to give this guarantee and..... [(Name of the person(s)] who have signed it on behalf of the Bank has authority to do so.

Dated this.....day of20.....

Place.....

Signature of the authorized person(s)

For and on behalf of the Bank.

The Bank has under its constitution power to give this guarantee and.....(Name of the person) who has signed it on behalf of the Bank has authority to do so.

The details of beneficiary bank for sending details of BG under SFMS Platform is furnished below

Name of beneficiary and details	
Name	Western Coalfields ltd
Area	Head Quarter
Bank A/c No: / Cust ID of beneficiary	Current Account no: 005905018053; Customer Id: 556096497 ; ICICI Bank Ltd, Commercial Banking, 9C/A& 9C/B, Ground Floor, Shriram Towers, LIC Square, Nagpur – 440001, Maharashtra
IFSC code	ICIC0000059
Bank Manager Name & Ph no:	Kaoser Khan: Ph n: 0712-6627390
BG ADVISING MESSAGE – 760COV / 767COV via SFMS	
Field Number	Particulars
7035	ICICI0000059
7037	WCL556096497

Dated this.....Day of.....20...

Place

Signature of the authorized person

For and on behalf of the Bank

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ANNEXURE -5

TECHNICAL SPECIFICATIONS AND TECHNICAL TERMS AND CONDITIONS

1. Equipment Package

The Supplier is required to provide a complete package of equipment for the supply of 5.0-6.0 CuM Hydraulic Excavator to opencast (surface) coal mining projects as per the Technical Specifications provided in Part D.

The supplier is required to supply the equipment along with accessories, consumables, training, installation, commissioning and testing at the coal mining project.

The package also includes Consumable Spares and Consumables for 12 months of warranty period from the date of commissioning of the equipment and thereafter Spares & Consumables for a period of 48 months.

The Scope and Phasing of supply for the 5.0-6.0 CuM Hydraulic Excavator is given in 'Schedule of Requirement'- Part "D".

2. Technical specification:

Introduction

These Technical Specifications identify the technical requirements of the Goods and Services which are the subject of this Tender.

The Technical Specifications are presented in four parts as follows:

A. Scope of Supply

B. Specific Project Requirement

C. General Requirements

- 1) Geography and Climatic Conditions
- 2) Goods (Equipment and Machinery)
- 3) Services
- 4) Standards
- 5) Supplier's Responsibility
- 6) Spares Parts Provision .
- 7) Availability provisions
- 8) Deemed Breakdown
- 9) Composite Warranty / Guarantee
- 10) Quality Assurance

D. Equipment Specifications

Technical response

Bidders shall provide a Clause by Clause commentary demonstrating compliance with the Purchaser's Technical Specifications, together with full supporting technical literature and data sheets.

Where ever graphical representation of data (e. g. load, power, performance curves) is required, the grid axis and data shall be properly and clearly labelled for ready comprehension.

Additionally Bidders shall provide the information specifically requested in the Attachment to the Technical Specifications.

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PART A

A. Scope of Supply.

A.1 Equipment Package.

The Supplier is required to provide a complete package of Equipment for the supply of Diesel Powered Hydraulic Excavator with Backhoe (Standard Rock Bucket) attachment of capacity 5.0 - 6.0Cu.Mtr bucket capacity for material density of 1800 kg/m³, at coal mining projects of WVCL, Nagpur as per the technical specification provided in Part –“D”

The Supplier is required to supply the equipment along with accessories, Consumables, Training, Installation, Testing & Commissioning at the coal mining project.

The package also includes Consumable Spare and Consumables for 12 months of warranty period from the date of commissioning of the equipment and thereafter spares and consumables for a period of 4 years (48 Months) under “**GPCC- Guaranteed Parts Consumables Contract**”

The scope and phasing of supply for the of Diesel-Powered Hydraulic Excavator with Backhoe is given in the “**schedule of requirement.**”

A.2 Supplementary Items and schedule of Requirement

The equipment shall be provided with comprehensive toolkit which shall include any special tools required of erection and commissioning of equipment. First fill of all oils, grease and lubricants needed for test, erection and commissioning of the equipment.

A.3 Information & Drawings & Manuals ;

At least one month before the schedule of installation date, the supplier shall provide not less than :

(a) Suitably illustrated copies of **Operating, Repair, and Maintenance instructions** for each type/ model of Equipment and accessories, written in the English language, substantially bound in book form :

Three copies to each Project site :and

One (1) copy each along with the soft copy to the concerned project In-charge , Area Manager, Staff Officer(Excv), General Manager (Excv) / HOD Subsidiary Hqts, and General manager (mm)/ HOD, Subsidiary Hqtrs

(b) Suitably illustrated copies of detailed Spare Parts Manuals for each type/ model of Equipment and accessories, written in the English language, substantially bound in book form :

Three copies to each Project site :and

One (1) copy each along with the soft copy to the concerned project In-charge , Area Manager, Staff Officer(Excv), General Manager (Excv) / HOD Subsidiary Hqts, and General manager (mm)/ HOD, Subsidiary Hqtrs

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In addition to the Equipment drawings, where appropriate, the supplier shall supply detailed drawings (in the same number of copies) illustrating erection /assembly at site(s), foundation and accommodation, for such items as Drive Motors, switch installation etc. (wherever applicable).

A.4 Erection/Assembly, commissioning and Performance Testing :

The Supplier shall provide the service of Specialist Technicians (Refer Part- C.3) and required manpower (Skilled / Semi-skilled / unskilled) to undertake the installation/ erection/ assembly, commissioning and any performance testing of the plant, equipment and accessories supplied. The purchaser will assist in providing necessary facilities like erection tools and tackles (supplied along with the equipment), cranes with operator and electricity during erection and commissioning .

The technicians shall remain at site following commissioning until all necessary personnel are fully conversant with the maintenance and operation of the equipment.

A-5 Training

I. The supplier in consultation to the project In-charge / HOD [Excavation] of the respective site shall make available experienced personnel to conduct training of engineers, supervisors, technician and operation personnel for specified periods mentioned in the table given in the "Schedule of Requirement of Services" from the date of issue of acceptance certificate of the equipment. The Training shall cover the following :

- a) Training on Simulator Module by the bidder at their works / suitable location in the India / suitable end user's location is mandatory.
- b) Equipment system, safety and risk assessment.
- c) Equipment Operation and maintenance.
- d) Trouble shooting, localisation of fault, and their remedies covering :
 1. Electricals and Electronics.
 2. Mechanical
 3. Hydraulic system
 4. Lubrication system
 5. Pneumatic system (if applicable) etc.

Comprehensive training manuals with clear illustration shall be provided to each participant in English language. The training courses shall be conducted in both English and Hindi languages.

Details of purchaser's estimates of minimum training programme required for total number of equipment is described in Sec-V.

Note : The training shall be conducted in batches within warranty period from the date of commissioning of the first equipment in the respective project.

II. Provision of additional training within the contract period after completion of warranty period.

i. The bidder shall give confirmation in their bid to impart training to the CIL personnel, in addition the contractual training provision, after completion of warranty period but at any time within the contract period.

ii. The additional training will be as per the requirement of the user and shall cover the training scope same as per the mandatory training (within warranty period) of the contract.

iii. The training will be on chargeable basis and additional payment to the supplier will be made at the same rates which have been indicated for mandatory training.

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PART – “B”

Specific Site Requirements

B.1 Project Specific Requirements

The equipment shall be suitable for use at the specific site projects of WCL under the climatic conditions detailed below:

B.1.1 Durgapur OCP

The Opencast Project is owned by the Western Coalfields Limited, a wholly owned subsidiary of Coal India limited (the purchaser) . The Mine is located partly in the Chandrapur District of Maharashtra 10 KM from Chandrapur railway station.

B.1.2 Bhatadi OCP

The Opencast Project is owned by the Western Coalfields Limited, a wholly owned subsidiary of Coal India limited (the purchaser) . The Mine is located partly in the Chandrapur District of Maharashtra 20 KM from Chandrapur railway station.

B.1.3 New Majri UG to OC OCP

The Opencast Project is owned by the Western Coalfields Limited, a wholly owned subsidiary of Coal India limited (the purchaser) . The Mine is located partly in the Chandrapur District of Maharashtra 30 KM from Chandrapur railway station.

B.1.4 Gondgaon OCP

The Opencast Project is owned by the Western Coalfields Limited, a wholly owned subsidiary of Coal India limited (the purchaser) . The Mine is located partly in the Nagpur District of Maharashtra 35 KM from Nagpur railway station.

B.1.5. Inder Kamptee Deep OCP

The Opencast Project is owned by the Western Coalfields Limited, a wholly owned subsidiary of Coal India limited (the purchaser) . The Mine is located partly in the Nagpur District of Maharashtra 20 KM from Nagpur railway station.

B.1.6 Ukni OCP

The Opencast Project is owned by the Western Coalfields Limited, a wholly owned subsidiary of Coal India limited (the purchaser) . The Mine is located partly in the Chandrapur District of Maharashtra 30 KM from Chandrapur railway station.

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PART- 'C'

C. GENERAL REQUIREMENTS.

C.1 Geography and Climatic Conditions.

Elevation : The natural surface varies from 100m to 1000m above mean sea level.

Climate: The climate is sub-tropical to tropical dusty with a hot and humid atmosphere.

Monsoon rains occur in the period from June to October –

Ambient Conditions Relative humidity - Maximum 98%

Temperature - Minimum 0° C to Maximum 50° C

Rainfall : The mean annual rainfall is 1000 mm. 90 to 95% of which may fall in rainy season from June to October.

Wind : Generally April to September - South to South Westerly & October to March - North Westerly

Speed - 8 Km per hr average and 100 Km per hour (max.).

Under foot Slushy and highly abrasive -

C.2 Goods (Equipment & Machinery)

Detailed specifications of the equipments to be supplied are given in Part "D" of this section.

In general all items shall be -

New, unused and of the current design (incorporating latest proven features) and not likely to be discontinued or become obsolete in near future.

Designed and constructed to handle without overload and for the working hours stated, the maximum volumes/rates specified.

Designed to facilitate ready access, cleaning, inspection, maintenance and repair of component parts.

Designed to facilitate rapid changeover of consumable items.

The component parts of all items shall, wherever possible, be selected from the standard ranges of reputable manufacturers.

The Equipments and accessories shall be physically robust and where necessary capable of dismantling for transportation and ready re-assembly using simple tools. All equipments items provided shall be designed to be compatible within the proposed overall Scope of Supply.

All workmanship and materials shall be of first class quality in every respect.

All parts and surfaces which are exposed to corrosive environments shall be suitably protected to prevent any effects of corrosion or erosion.

C.3 Services ;

The supplier shall be responsible for the erection and commissioning of the equipment at site. The supplier shall depute qualified and competent engineer (s) and specialist technicians to supervise the entire assembly, erection and commissioning of equipment free of cost.

C.4 Standard:

The design, supply, erection, testing and commissioning of all equipment under this contract shall in all respect comply with the requirement of this specification and with the appropriate current Indian standards and codes, or relevant standards issued by the bureau of Indian standards or International Standard Organization, or any other equivalent International Standards , which correspond to specific ISO/ Indian standards indicated in the technical specification. Such equivalent International Standards are to be supported by documentary evidence certifying that offered standards are identical to the corresponding ISO/ Indian standards.

The equipment shall comply with requirements of the Statutory Government Authorities, including Director General of Mines Safety (DGMS) having jurisdiction over the Equipment and its use. The system of units for all measurements shall be the System International Units (S.I.).

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C.5 Suppliers Responsibility.

The purchaser requires that the Supplier shall accept responsibility for the provision of complete operable and compatible Equipment and systems within the Scope of Supply. This document identifies only the major items required for the installation and the Supplier shall ensure that the total supply includes all necessary equipments for it to function effectively and safely. Any additional items the Supplier considers necessary to ensure compliance with such requirements shall be identified and included.

If the Supplier observes that this specification documents contains any anomalies, ambiguities, flaws, errors or omissions, the supplier shall immediately bring these to the attention of the Purchaser but not later than 15 days prior to the due date of opening.

The supplier shall be responsible for the testing and commissioning of the equipments and ensure that it meets the requirements as specified. The commissioning and setting to work of the whole equipments supply package shall be carried out under the supervision of the Supplier in conjunction with the Purchaser's nominated personnel.

C.6 Spares Parts Provision :

C.6.1.a. Availability of Spares parts : All items and equipment proposed shall be of current design and manufacture. The supplier shall warrant that sufficient spares and servicing facilities will be available to maintain the equipment in use throughout its life.

C.6.1.b. Bought out assemblies and Sub-assemblies :

The supplier is required to furnish the details of all major bought out items as indicated in the technical specification against "Information to be provided by the bidder".

The bought out items of the following category which are applicable to the Model of Excavator Offered by the Bidder is required to be furnished:-

Engines, Transmissions, Transmission pump, Suspensions, Air conditioning Spares, Ac/DC Motors and Generators, Auto electrical Items, Universal Joint assemblies, Drive lines (including Torque converter, PTO Assembly, Differential Assembly, Final Drive Assembly and its spares) Hydraulic Pumps, Hydraulic Motors, Hydraulic Cylinders, Brake parts, Brake systems, Feed and Propel Chains, Auto lubrication system, Auto fire detection and suppression system, Tyre inflation Parts, Instruments, gauges, Air Compressor, Hydraulic control valves, Fuel Injection pump, Travel device Assly, Electrical Control panel and other safety devices/sensors.

C.6.2 Provision of spare parts :

C.6.2.1 Within the Contract Price, the Purchaser shall agree to purchase all Operational, Maintenance and standby/ contingency Spare Parts, consumable items, Wear Materials, maintenance tools and special tools (herein after collectively referred to as "**Spare Parts**" unless the context specifies otherwise), in accordance with the supplier's recommendations for **60 (Sixty) Months** from the date of issue of Commissioning certificate. Similarly, within the contract price, the purchaser shall also agree to purchase consumable items (hereinafter referred to as "**Consumables**" , in accordance with the supplier's recommendations for **60 (Sixty) Months** from the date of issue of Commissioning certificate. The schedule of supply of spares and consumables shall as indicate in the schedule of requirements, **Section-V**. In addition the supplier shall provide **Spares parts and Consumables** for commissioning.

Consumables shall include items such as Oils, Lubricant, Grease, fluids, coolants and Refrigerants also.

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The supplier shall submit (i.e five years) Five (5) separate schedules showing spare parts and consumables proposed to be supplied by them in each 12 (twelve) months period from the date of commissioning of the equipment wise in order to comply with the provisions herein contained.

C.6.2.2

In the event that the Spare Parts and Consumables, as maintained by the Supplier, in any way fall short of actual requirements during the period for which they are said to be adequate, the supplier shall provide such additional spare parts and consumables as are necessary at final destination. Such additional spare parts and consumables shall be provided by the supplier to the purchaser, **free of all costs** and shall be transported to Site by air freight internationally and by air, rail ,fast road transport within India.

C.6.2.3 In the event that the spares parts, Insurance items, and consumables, as recommended by the supplier, are in excess of actual requirement, the purchaser may at its option:

- a) Retain such excess spares parts and consumables as, in its discretion, it may elect to do so.
- b) Require the supplier to reprocess or repatriate or otherwise dispose of such excess spares parts and consumables in exchange of payment to the Purchaser of the contract Price of spare parts and consumables concerned.

The purchaser shall notify the supplier, in writing of its requirements under this clause within thirty (30) days of completion of the period referred to in Clause C.6.2.1 hereof.

C.6.2.4 In the event that the operation of the plant is inhibited or frustrated as a direct result of lack of Spare parts and Consumables pursuant to clause C.6.2.2 hereof, then the period referred to in clause 'C.6.2.1' hereof shall be extended by a period of not less than the period during which operation as aforesaid was inhibited or frustrated.

C.6.2.5 The supplier shall not be liable for the supply of additional Spare parts and Consumable, nor to extend the period referred to in Clause C.6.2.1 hereof, if and to the extent that, additional Spare Parts and consumables are required by reasons of unforeseen accidents, negligence or misuse on the part of the purchaser.

C.6.2.6. The assessment of the supplier of the Spare parts & Consumable requirements shall be based upon the expected 4500 +/- 500 (Four thousands Five Hundreds plus or minus Five Hundreds) working hours per year, on average basis.

The assessment for spare parts and consumables shall be done for minimum 5000 hrs in First year and then it is left to the supplier to arrange the spares based on the average working hours. However the spares and consumables including the filters are to be supplied for 60 months free of cost within the contract beyond the list submitted by the supplier (if needed)

C.6.3 Emergency Spare parts.

C.6.3.1 Emergency spare parts required by the purchaser to repair breakdowns shall be dispatched to the site by the supplier by the fastest, practicable means as directed from time to time by the purchaser.

C.6.3.2 For the purpose of Clause no C.6.2.6, "Emergency spare parts" shall mean those spare parts or components required by the purchaser to repair any item of Plant supplied pursuant to the

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contract in the event of a breakdown not attributable to a failure covered by guarantee or a failure of the supplier to provide adequate Spare Parts or consumables.

C.6.3.3. payment in respect of supply and delivery of such Emergency spare parts shall be made promptly, retrospectively, by the purchaser, in a manner consistent with the terms of payment described in the contract.

C.6.3.4 Lifetime Spare Parts.

The supplier undertakes and guarantees to produce and maintain stocks, to be available for purchase by the Purchaser under separate agreements of all Spare Parts and Consumables as may be required for maintenance and repair of the equipment throughout its working life. In the event that the Supplier wishes to terminate production of such Spare Parts, the Supplier shall:

(a) give not less than six months' notice in writing of it's intention to terminate production in order to permit the Purchaser reasonable time in which to procure needed requirements and

(b) immediately following termination, provide to the Purchaser at no cost, manufacturing drawings material specifications and all necessary permissions to facilitate manufacture of the spare parts elsewhere.

(c) Any change in part no or superseded part number should be informed to the HOD of Excavation department / MM department of subsidiary hqrs. and the project site wherever the equipment is operating

In any event, the Supplier shall not seek to terminate manufacture of spare parts for a period of not less than 15 (Fifteen) Years from taking over or the life time of the equipment whichever is later. (self certificate to be submitted)

C.6.4. Oil, Lubricants and Fluids :

The Supplier shall provide to the purchaser a detailed schedule of all necessary Oils, Lubricants & fluids for operation and maintenance of the equipment. The schedule shall indicate estimated annual consumption and specify the appropriate international standard number or the name and reference number of equivalent available in India considered to be acceptable by the supplier.

C.6.5 General :

C.6.5.1 Nothing in this clause C.6 shall relieve the supplier of any guarantee, Availability, performance or other obligations or liabilities under the contract.

C.7 Guaranteed Availability

The guaranteed availability (year wise) shall be as per the "Clause -Performance Guarantee " as of the individual equipment specification :

SN	Equipment	Minimum Annual Guaranteed Availability (In %)
1	5.0 -6.0 CuM Hydraulic Excavator (Backhoe)	85% (eighty five percent) - For 36 Months from the date of commissioning.
		80% (eighty percent) – For remaining 24 Months of contract period.

Noted



C.7.1 Introduction

C.7.1.1 The supplier shall guarantee that the equipment supplied pursuant to this contract shall be available for use by the Purchaser and shall meet the performance criteria specifications at the level and in accordance with the terms and conditions of the Availability Guarantee herein contained.

C.7.1.2 Where equipment supplied under the Contract fails to meet the criteria of the Availability Guarantee, the Supplier shall, at its own cost, provide suitably qualified and experienced personnel at site to demonstrate to the purchaser's satisfaction that the required level of availability can be achieved and maintained.

C.7.1.3 The supplier shall provide the services of such personal at site within (7) days of notification by the purchaser that the availability criteria have not been met in any one (1) month.

C. 7.2 Guarantee

C.7.2.1 The supplier shall guarantee that the equipment supplied pursuant to the Contract shall be available to the Purchaser at the level hereinafter defined to perform to criteria of not less than that defined in the Technical Specifications incorporated in the Contract.

C 7.2.2 The Supplier shall guarantee that the equipment shall be available to perform its duty to minimum criteria and to the minimum availability percentage level as defined in the individual equipment specifications included as the Attachment to the Technical specifications.

The method of assessment applied shall be as follows :

Method of Assessment :

The following calculation shall determine the availability of the equipment

$$\% \text{ Availability} = \frac{\text{Scheduled Available time} - \text{Down time}}{\text{Scheduled Available time}} \times 100$$

Scheduled Available time shall equate to 24 hours.

Down time shall mean all hours of work lost due to mechanical, electrical or other failure. Including:

a) routine servicing and maintenance in accordance with the manufacturer's published recommendations, including:

changing oils, oil filters and air filters; lubrication; changing identified consumable or wear parts..

b) planned preventive maintenance programmes,

It shall not however include:

- i. Damage due to abusive use or incorrect operation methods by the Purchaser.
- ii. Accidents.
- iii. Strikes or stoppage of work by the purchaser's personnel
- iv. Natural disaster.
- v. Lack of spare parts not attributable to a failure of the supplier; it's Agents or representatives.

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Down time shall also specifically include all hours lost due to failures determined to be guarantee failures.

The Supplier shall provide a schedule of maintenance required to carry out (a) and (b) above for the first five years (warranty + Guaranteed availability period) of operation and shall state the number of hours required to carry out each maintenance task. The time stated shall, with the agreement of the Purchaser, form the basis of assessment of availability.

The schedule of tasks and time will be reviewed periodically by the purchaser and the Supplier, jointly, to monitor the practicality of the schedule.

The Purchaser will assist the Supplier, without relieving the Supplier of any other obligations under the Contract, to achieve the guaranteed availability by :

i. Providing normal and proper maintenance, including preventive maintenance in accordance with the supplier's standards/ published recommendations, and making all necessary repairs using only spare parts provided by the supplier in accordance with the requirements specified in part C6.

ii. Providing co-operation to all suppliers' authorized representatives, complying with all reasonable procedural suggestions to improve efficiency of machine operation or reduce downtime.

iii. Where appropriate, providing and maintaining such conditions as :

- Proper Electrical Supply
- Terrain Area
- Bench preparation
- Reasonable Floor Conditions.

iv. Providing all suppliers' authorized representative access at all reasonable times to the machine service and repair facilities.

Maintaining a log book for each shift wherein the working hours, breakdown time, maintenance hours, idle time, etc. shall be recorded. This record will be available for examination and signature by the Supplier's representative.

C. 7.3 Effect and Duration of the Performance Guarantee :

C.7.3.1 This guarantee shall become effective on the day on which the Equipment is commissioned at the Site. Commissioning shall be evidenced by the issue of the Purchaser's Acceptance Certificate.

C.7.3.2 The guarantee shall remain effective for 60 months from the date of commissioning irrespective of the Hours operated by the equipment during the period of the guarantee.

C.7.3.3 Compensation for not achieving guaranteed Availability:

In the event that the Equipment, fails to achieve the Availability herein provided measured over each twelve (12) months period, the supplier shall be liable for and pay to the Purchaser, as liquidated damages, a sum equal to as indicated hereunder for each equipment against the PGB submitted by the bidder as per clause-2 of SCC.

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- a) 1 % of the delivered landed price of the equipment including the price of spares & consumables for 12 months period for reduction in every percentage or part thereof from the Guaranteed Availability for the first 5%.
- b) 10 % of the delivered landed price of the equipment including the price of spares & consumables for 12 months period for reduction beyond 5% from the Guaranteed Availability.

C.8 Deemed Breakdown :

When the supplier is unable to supply the replacement of a failed part during the contract period, and if the machine is commissioned by using the spare from the stock of the project, the period (after 21 days) till the supplier replaces the part under warranty shall be treated as "Deemed Breakdown" (the credit for keeping machine available shall not be given to the supplier).

The supplier shall not in any way be allowed to take out spare parts from other equipment, which are under breakdown and covered within the scope of this contract. However, CIL in the interest of work reserve the rights to advise the supplier to commission the breakdown equipment covered under this contract by taking out spare parts from other breakdown equipment. Nevertheless, during this period also, the equipment shall be treated as 'Deemed Breakdown' till the supplier replaces the spare parts.

C.9 Composite Warranty / Guarantee

The Bidder shall warrant that the equipment supplied under this contract is:--

- a) In accordance with the contract specifications.
 - b) The equipment shall have no defects arising out of design, material or workmanship & the Complete Equipment shall be warranted for 12 months from the date of commissioning. Any defect arising observed on this account will have to be attended immediately.
 - c) The supplier must ensure that there is no major breakdown due to manufacturing/ design defects during the warranty period. In case such breakdown occurs, the purchaser reserves the right to extend the warranty period suitably.
- The warranty shall cover the total equipment so that comprehensive responsibility lies only with the equipment supplier although components may be supplied by different supplier to the bidder.

C.10 Quality Assurance

C.10.1 The Supplier should furnish in detail its quality assurance plan for various stages of manufacture. The Quality Assurance plan shall comply with an internationally recognised quality assurance standard such as ISO 9000 or equivalent.

C.10.2 The Supplier shall provide facilities to Purchaser or their authorised representatives for progress inspection during manufacture at his works and furnish all test data available in this regard for quality control, both for bought out items and his own manufactured items.

C.10.3 The Purchaser or his agent, when so required by him, shall also be provided with samples of "bought-out" materials for the purposes of undertaking independent tests which independent tests shall be at the expense of the Purchaser.



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PART - 'D'

EQUIPMENT SPECIFICATION

HYDRAULIC EXCAVATOR, 5.0 - 6.0 M³ BUCKET CAPACITY, (BACKHOE).

1. Scope Of Specification

This specification is intended to cover the technical requirements for the design, manufacture, testing, delivery, on-site erection and commissioning of a self-propelled, crawler mounted diesel-powered Hydraulic Excavator with, 5.0 - 6.0Cu Mtr Backhoe bucket.

2. References

The following International Standards are referred to in, and form part of, the Specification. Up-dation against the same (where ever applicable) shall be accepted:-

- ISO 2867 Earth-moving machinery - Access systems
- ISO 3457 Earth-moving machinery - Guards and shields - Definitions and specifications
- ISO 4557 Earth-moving machinery - Excavators - Operator's controls
- ISO 6014 Earth-moving machinery - Determination of ground speed
- ISO 6015 Earth-moving machinery - Hydraulic excavators - Methods of measuring tool forces
- ISO 6405-1 Earth-moving machinery- Symbols for operator controls and other displays Part 1:
Common symbols
- ISO 6405-2 Earth-moving machinery-Part 2 : Specific symbols for machines, Equipment and accessories
- ISO 6682- Earth-moving machinery – Zone of comfort and reach for controls.
- ISO 6750 Earth-moving machinery - Operation and maintenance - Format and content of manuals
- ISO 7135 Earth-moving machinery - Hydraulic excavators - Terminology and commercial specifications
- ISO 7451 Earth-moving Machinery – Volumetric ratings for hydraulic excavator buckets and backhoe loader buckets.
- ISO 8643 Earth-moving machinery - Hydraulic excavator and back-hoe loader boom lowering control device - Requirements and tests
- ISO 9249 Earth-moving Machinery – Engine test code – Net Power
- ISO 10265 Earth-moving Machinery – Crawler machines – Performance requirement and test Procedure for braking system.
- ISO 10968 Earth-moving Machinery – Operator's Controls.

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ISO3449 Earth-moving Machinery – Falling object protective structures- Laboratory tests and performance requirements.

ISO5006 Earth-moving Machinery – Operator's Field of view – Test method and performance criteria.

Any other ISO specifications as may be applicable.

3. Design Criteria

The excavator shall be capable of continuous digging for protracted periods on a system of 3 shifts each of 8 hours duration per day throughout the year in hard, highly abrasive, blasted sandstone/rock having **average** density after blasting of $1,800 \text{ kg/m}^3$

The Excavator shall be suitable for 2:1 heaped loading of Rear Dumpers of 60T Capacity.

3.1 Working ranges :

The Excavator shall have the following working ranges:

- i. Maximum Digging Height Not Less Than 12.00 Mtrs.
- ii. Maximum Digging Reach Not Less Than 13.50 Mtrs.
- iii. Maximum Digging Depth Not Less Than 7.50 Mtrs.
- iv. Maximum Dumping Height Not Less Than 8.00 Mtrs.

3.2 Operating Weight

The operating weight should not be less than 90000 kg.

The bucket digging force measured in accordance with ISO 6015 should be not less than 15000 kg/m of bucket width.

The ratio of arm or bucket digging force to operating weight should be equal to or less than 0.6. The equipment shall be meeting the stability requirement in all operating ranges.

4. Mechanical Specification

4.1 Bucket

The excavator shall be supplied with standard rock bucket, completely wear-plated to excavate sand stone abrasive rock having rock density (loose/blasted) of 1800 kg/m^3 . The backhoe bucket shall have capacity of **5.00 CuM – 6.00 CuM** according to ISO 7451. The specific weight of the steel used in construction of bucket shall be not less than 7800 kg/m^3 .

The tooth points supplied with the bucket shall be preferably hard faced and should have proper, durable, easily removable and shock absorbing type attachment with the bucket.

4.2 Boom & Arm

The boom and arm should be a rugged durable construction of high strength steel and free from any stress concentrations. The design must take care of all forces i.e., bending, torsion, compression, etc. encountered during operation of the equipment. Sealed bearings / bushings should be provided at pivot points.

The bucket attachment connecting pins shall be sealed and lubricated.

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4.3 Engine

The excavator shall be powered by direct injection 4-stroke turbo charged diesel engine delivering not less than 445 KW net power measured between 1700 rpm and 2200 rpm according to ISO 9249.

The engine shall be provided with 24V electrical starting, dry type 2 stage air cleaner with dust evacuator, dust level indicator and 2 stage fuel filter with water separator.

The engine shall have a water jacket cooling system, thermo-statically controlled, using an engine driven water pump, with the cooling water re-circulated through a heavy-duty radiator. The system shall be capable of providing sufficient cooling to allow the Excavator to continuously operate at full rated output at the maximum ambient temperature. The radiator cap shall be fastened with body with the help of suitable capacity chain/locking arrangement.

The moving parts of the engine shall be lubricated by an engine driven oil pump with full flow oil filtration and cooling.

The engine shall be provided with a heavy-duty pan guard / suitable protection as per manufacturer design.

The engine is to be fuel efficient having fully integrated electronically controlled monitoring system & real-time self-diagnostic features with built in protections. The Engine electronic control module should be fully integrated with all systems of power train for all operating conditions and be capable to monitor operator's and sensors inputs for optimum engine performance & reduced emissions level. All engine vital parameter data shall be integrated with On Board Display (OBD) system of operator's cabin.

The engine shall be environment friendly with minimum EPA, Tier - II or above standard certified. However, higher environmental standard, if any, shall be applicable as per notification of Govt. of India at the time of supply /tendering. Certificate for EPA, Tier - II or above standard from engine manufacturer is to be enclosed.

A suitable electronic tool (laptop) loaded with compatible software and all related accessories shall be provided project wise (1 no. laptop for a fleet up to 3 nos. or part there off for each project) along with special tools for retrieval and analysis of the recorded critical parameters of self-diagnostic features, real time monitoring and equipment health-monitoring systems fitted with the equipment. The supplier shall also be required to provide readable reports downloaded from each Equipment.

Compatible Software loaded in electronic tool (Laptop) should be warranted for entire contract period.

4.4 Hydraulic Drive System

The excavator hydraulic system should be of proven design for efficient operations. The hydraulic pumps, motors, and cylinders should be field proven large heavy-duty type and have suitable in-built protection from surge, cavitation, loss of oil due to hose leakage or burst, etc. As far as practicable reputable single make pumps, motors, cylinders and valves, etc. shall be used in the machine.

Adequate filtration of hydraulic oil shall be provided. The hydraulic tank preferably be pressurized. An adequate and effective hydraulic oil cooling system shall also be provided.

All hoses shall be grouped as far as possible and suitably clipped to reduce damage from scuffing.

A boom lowering control system which complies with ISO 8643 shall be provided.

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4.5 Swing System:

An independent hydraulic system should be provided for the swing motion.
Heavy duty Swing Circle with internal swing gear and pinion immersed in lubricant bath & dirt seals shall be provided. Swing Motor Brake should be provided

An upper structure swing lock/suitable arrangement to lock the upper structure shall be provided.

4.6 Propul and Steering:

Independent crawler drive with independent fail-safe braking system and hydraulically operated emergency and parking brakes which comply with ISO 10265 shall be provided.

4.7 Undercarriage:

The undercarriage shall be heavy duty and of sufficient strength to withstand the highloads which may occur due to uneven ground conditions. It shall be of welded construction and stress relieved as required.

The sprocket should be a single piece / segmented type. Lifetime lubricated, idler and rollers, and a reliable track tensioning arrangement should be provided.

Crawler shoes shall be heavy duty and designed for ease of replacement whenever necessary.

4.8 Machinery House:

The excavator shall be provided with a machinery house/ suitable arrangement made of steel sheeting supported by a steel structure and shall cover the engine & drive system. It shall be designed to give ready and safe access to personnel & equipment for maintenance.

Non-slip type walkways and catwalks with handrails shall be provided in and around the machinery house, the operator's cab and service platforms and shall comply with ISO 2867.

4.9 Fuel Tank:

The fuel tank shall be of sufficient capacity to allow 16 hours operation without refuelling and be provided with a level indicator and a lockable-hinged filler cap. The cap shall be fastened with tank with the help of suitable capacity chain/locking arrangement.

Construction of the tank should be such that it provides for easy accumulation and drainage of water with minimum loss of fuel.

4.10 Lubrication System:

A centralized PLC based / Microprocessor based / Micro controller based hydraulic/Air/Electric operated, automatic lubrication system shall be provided to service all lubrication points on the machine, including those points where use of high viscosity lubricants is required.

The lubrication system shall be fully monitored to ensure adequate lubricant flow is maintained to all points of major parts. The monitoring system shall, where necessary, be interlocked with the relevant control circuits to prevent damage due to lack of lubrication at any point. Alarms and indications for failure of lubrication system shall be provided and shall be repeated in the OBD (Onboard Display) of operator's cab.

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Lubricant containers of adequate size shall be located in a separate room / enclosure inside the machinery house / convenient location and be large enough to cater lubrication needs for continuous operation between refills. The containers shall be fitted with suitable arrangement for cleaning and refilling.

All lubrication lines and injectors shall be protected from damage. Location of all injectors shall be such that these can be conveniently inspected and repaired. The lubrication lines to the remote points should be properly guided. Flexible lines shall only be used where there is relative movement between parts and for final connection to movable components. Preferably steel piping shall be used for long runs and shall terminate in steel junction blocks or rigidly mounted bulk head connectors to prevent disturbance to steel piping when flexible hoses are replaced.

Fire/heat resistant/ retardant hoses shall be provided in lubrication system. Lubricants recommended shall be of reputed make with Indian equivalent, if available.

4.11 Operator's Station:

A suitable Operator's Station shall be provided on the equipment as per Gazette notification issued by Chief Inspector of Mines vide F.No. Z-20045/01/2018/S&T (HQ) Dhanbad, the 1st October, 2018.

4.11.1 Operator's Cabin:

A fully insulated, high-visibility, rigidly mounted, sound-suppressed, vibration-suppressed, air conditioned, operator's cab with tinted safety glass should be so positioned to facilitate a clear and unrestricted view of the travel & work areas of the machine necessary for its intended use. The performance criteria shall be in accordance with ISO 5006. The sound level inside the cab shall be below 85dBA while the equipment is operating, and with the door closed. All operating controls, all monitoring, working signals and emergency switch to stop the engine should be conveniently located in consoles within easy reach of the operator and shall comply with ISO: 6405-1, ISO: 6405-2, ISO: 6682 & ISO: 10968. The operator's cab shall be provided with an emergency exit in addition to primary access path to the cabin.

Alternative opening (Emergency Exit): An alternative opening shall be provided on a side other than that of the primary opening. A window panel or another door is acceptable if they are easy to open or remove without the use of keys or tools. Latches may be used if they can be opened from the inside without the use of keys or tools. The breaking of a suitable size of glass pane is considered to represent a suitable alternative opening, provided that the necessary pane hammer, immediately accessible to the operator, is provided and stored in the cab. When the window panel is used as an emergency exit, it shall bear an appropriate marking.

Doors, Windows and flaps shall be securely held in their intended operating positions. Doors shall be retained at their intended operating positions by a positive engagement device. The front glass shall be fitted with motorized wind screen wipers and washers. The tank of the front glass washers shall be easily accessible.

Pipes and hoses that contain fluids at pressures exceeding 5MPa or temperatures above 60°C located inside the cab shall be suitably guarded.

Steps and handrails of robust design, which comply with ISO 2867, shall be provided for access to the operator's cab.

Periodical maintenance of Air Condition system including gas refilling to be done by the supplier during the contract period

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4.11.2 Operator's Protective Structures:

Shovel shall be equipped with FOPS as per ISO –ISO3449.

4.11.3 Operator's Seats:

The Operator's Station shall be fitted with an ergonomically designed adjustable seat that supports the operator in a position that allows the operator to control the machine under the intended operating conditions. The seat and its suspension shall be so designed to reduce vibration transmitted to the operator to the lowest level that can be reasonably achieved.

Seat Belt for operator with reminder shall be provided as per DGMS circular no. DGMS (Tech) Circular No. 06 of 2020 Dhanbad dated 27.02.2020.

4.11.4 Operator's Controls and Indicators:

The controls shall be of suitable design and construction and arranged so that they are able to be operated with ease from the operator's seat and within the operator's force limits. Controls shall be laid out and designed to allow easy and safe operation based on the principle that a given direction of movement of any control produces a consistent and expected effect. The surfaces of frequently used pedals shall be fitted with skid resistant type materials.

Controls that can cause a hazard due to inadvertent activation shall be so arranged, deactivated or guarded as to minimize the risk — particularly while the operator is getting into or out of the operator's station. The deactivation device shall either be self-acting or shall act by compulsory actuation of the relevant device.

4.11.5 Starting and Stopping System:

Shovel shall be equipped with a starting and stopping device (e.g., key). The starting system shall have a provision for protection against unauthorized use.

The starting and Stopping system shall be designed such that movement of the machine, shall not be possible, while starting or stopping the engine, without activating the controls. (e.g., Transmission Neutral-Engine Start safety arrangement), if applicable

4.12 Gauges and Indicators/Electronic Display:

The following shall be provided:

- a) Water temperature gauge
- b) Engine oil pressure gauge/indicator
- c) Fuel capacity gauge
- d) Engine tachometer
- e) Engine hour-meter
- f) Low engine lube oil pressure indicator
- g) Hydraulic oil level indicator
- h) Air filter clogging indicator
- i) Hydraulic Oil Temperature Gauge

In case any of these gauge(s) /indicator are not provided, then it may be adequately explained that how job of the same shall be accomplished in the offered product.

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4.13 Warning Alarms:

Warning alarm shall be provided for the following:

- a) Radiator coolant level
- b) Hydraulic oil level
 - c) Air cleaner element
 - d) Engine oil pressure
- e) Engine water temperature
 - f) Hydraulic oil temperature
 - g) Fuel level
 - h) Microcomputer (if applicable)
 - i) Automatic lubrication
 - j) P.T.O lubrication

4.14 Electrical Equipment:

The excavator shall be provided with the following:

- a) 24V DC electrical system with suitably rated alternator of reputable make
- b) Reputed make Electric start motor
- c) Reputable make high capacity maintenance free batteries
- d) Battery isolation switch / relay.

All electrical circuits shall be protected by adequately rated fuses/MCBs, which shall be easily accessible for maintenance. In case of fuses, at least two spare fuses of eachsize/ratings shall be provided in each fuse box, which shall be easily accessible for maintenance

4.15 Lighting:

Adequate flood lighting and illumination at strategic points both outside and inside of the machine shall be provided for visual observation and night shift operation. All lighting system shall be of LED / 24V HID type.

4.16 Guards and Shields:

Adequate guards and shields which comply with ISO 3457 shall be provided throughout the excavator.

4.17 Automatic Fire Detection and Suppression System (AFDSS):

A suitable automatic fire detection and suppression system of reputed manufacturer (indigenous or imported), shall be provided on the equipment complying Clause-5 of DGMS (Tech) Circular No. 06 of 2020 dated 27.02.2020.

Automatic fire detection and suppression system suitable for fire class A, B & C shall be provided in the fire prone zone of the Excavator.

- o Bidder requires submitting a schematic drawing indicating Plan of the system with relative position of items to be protected from fire.
- o Fire detection and suppression of fire may be either total gas flooding or dry chemical powder base spray through nozzle strategically through an actuation cartridge, located to the targets, or combination of the two.
- o Fire suppression agent used in neighborhood of electrical appliances shall be clean and shall not damage electrical / electronic component.

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- Fire suppression system shall be non-hazardous & safe for human and environment friendly. It should have quick cleanup and environmental sustainability.
- The sensor shall send the signal to the control unit integrated with a LED and/or alarm indicator to show the status of the detector.
- The system shall operate to supply adequate quantity of fire suppressing agent for effective firefighting and to avoid re-ignition and suitably designed to extinguish the fire as per class of fire (A, B & C) of that location. The System shall operate only in active fire area.
- The system shall be actuated automatically by detection of fire and control unit to be installed within the Operator's cabin for automatic system operation.
- The system shall also have provision of actuating manually.
- The system shall provide facility for self-checking /testing/inspection without operating.
- The system should be capable for efficient operation in the extreme mining conditions with dust, dirt, water & vibrations.

The high pressure storage vessels and hoses, if used with fire- fighting and fire suppression systems, shall conform to the requirements stipulated in the relevant Indian standards.

Bidder shall submit a Certificate as an undertaking that, a valid Test Certificate (valid as on the date of commissioning of the equipment at site) shall be submitted at the time of supply of equipment along with other documents, for AFDSS including materials and chemicals used in fire suppression system from any Government or Government approved Laboratory in compliance with relevant Indian Standards as per DGMS (Approval) Circular No. 02 dated 08th July 2013.

Note: Periodical refilling and maintenance shall be done by the supplier during the contract period

4.18 Fire Extinguishers:

An adequate number of fire extinguishers shall be provided at strategic points on the shovel, suitably mounted in heavy-duty brackets for ease of removal.

The extinguishers shall be both dry chemical powder (DCP type) and CO2 type with a minimum capacity of 5 kg and shall comply with Indian Standard IS: 15683 with latest amendment.

Bidder shall submit a Certificate as an undertaking that, a valid Test Certificate (valid as on the date of commissioning of the equipment at site) shall be submitted at the time of supply of equipment along with other documents, for Fire Extinguishers, including Materials and Chemicals used in fire suppression system from any Government or Government approved Laboratory in compliance with relevant Indian Standards as per DGMS Circular No. DGMS (Approval) Circular No. 02 dated 08th July 2013.

Periodical refilling of fire extinguishers shall be done by the supplier during the contract period.

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4.19 Safety Features

All safety features & devices as per Govt. Of India Gazette notification no. Z 20045/01/2018/S&T (HQ) dated 01.10.2018, DGMS Circular No. DGMS (Tech) Circular No. 06 of 2020 Dhanbad dated 27.02.2020 and subsequent amendments, if any, including following shall be provided in the equipment. Bidder shall submit a Certificate as an undertaking in this regard that all safety features and devices applicable for the subject equipment are incorporated in the equipment.

- a) All function cut off switch.
- b) Hydraulic oil and air filter clogging indicators.
- c) Swing Motor Brake.
- d) Fire resistant / fire retarder hydraulic hoses in place of ordinary hoses to reduce the chances of fire. All the sleeves and conduits in which cable/wire are laid shall be of fire-resistant type.
- e) Turbocharger guard.
- f) Seat belt & Seat belt reminder- Should comply as per requirement of Clause 10 of DGMS Circular no: 06 of 2020 Dhanbad dated: 27.02.2020
- g) Vent valve, if applicable on top of hydraulic tank should be able to be removed without any tool.
- h) A baffle plate between cold zone and hot zone
- i) Provision for limiting of hydraulic cylinder
- j) Rear Vision Camera - Should comply as per requirement of Clause -1 of DGMS Circular no: 06 of 2020 Dhanbad dated: 27.02.2020
- k) Warning System for Operator Fatigue - Should comply as per requirement of Clause-2 of DGMS Circular no: 06 of 2020 Dhanbad dated: 27.02.2020

5.0 Ancillary Equipment And Other Requirements:

The following are to be provided with the excavator:

- a) Pressurized radiator cap with chain attachment.
- b) Hydraulic jack 50T - 1 no.
- c) Hydraulic pressure gauges with adopters, sockets suitable for checking Hyd.

Pressure in the equipment

- d) Torque Wrench/Torque Multiplier -1 no along with sockets applicable for the machine, especially for swing circle & counter weight.
- e) Self diagnostic and real time monitoring electronic tool

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- f) Multi meter for measuring electrical & electronic circuit values provided in the equipment

6.0 Productivity & Health monitoring system:

The equipment shall be provided with suitable licensed, on-line, real time, monitoring interface facility, compatible for GPS-based transfer of equipment performance data (commonly known as PMS and HMS) to third party equipment management system.

The system shall have OBD Self-diagnostic & error alarm features and should capture the parameters of HMS module and other parameters not covered by HMS of the equipment to monitor the following minimum items:

- I. Working hour, idle hour, based on the duration of a shift for which the equipment is switched on for operation
- II Engine oil pressure
- III Coolant temperature
- IV. Coolant level
- V. Engine RPM
- VI. Fuel level and fuel consumption rate
- VII. Hyd. oil temperature and pressure
- VIII. Hyd. Oil Level in the tank
- IX. Engine electrical system - Battery voltage and Alternator out put
- X. All vital parameters of Hydraulic System

(Provision for downloading the Data related to points VI to X from VHMS shall be provided as per OEM design)

This system shall have suitable memory capacity to store above measured data in batch form for at least one month period and shall have suitable port to download these data to a laptop / data storage system.

Alert audio messages to be given to Shovel Operators for Fire warning to operator in case of catching fire.

The supplier shall provide the following:

1. There has to be one integrated single online port for capturing all the vital data.
2. The real time interface telemetry port will be provided in the equipment
3. All the data shall be available in the individual form through single port and its communication protocol must be as per global standards.
4. There shall be no additional requirement of any data converter for data capturing like Analog to Digital and vice-versa etc.

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5. There shall be integrated on board data management system as explained at point no.3 as above.
6. Permission to third party for interfacing, data collection through online port.
7. Signing of Non-disclosure agreement to protect intellectual property right on either side.
8. To provide full technical support to third party vendor for interpretation and defining parameters for individual alarm to monitor equipment vital data.
9. The HEMM equipment supplier should provide access to data as required by end user without any financial implication to third party.

This interface facility shall be made available till the working life of equipment. However, the supplier shall provide this interface facility during the contract period as a part of contract cost.

To ensure the satisfactory operation of above system, a tripartite agreement shall be signed by the user, supplier and the service provider of OITDS / System Integrator.

7. Special Guarantees

The following guarantee will apply for the different components from the accepted date of commissioning:

- a. Body, Chassis - 10,000 hours
- b. Complete engine system - 8000 hours
- c. Undercarriage - 5000 hrs
- d. Hydraulic Pumps & motors - 6000 hrs
- e. Hydraulic Cylinder Assembly - 6000 hrs
- f. Electrical Items, 24V DC - 2000 hrs
- g. Final Drive (Excluding Sprocket) & Steering System- 8000 hrs

In case of failure of any of the above component within the special guarantee period, the supplier shall replace the same with a new one. However, in case of failure of any peripheral item of Engine and transmission e.g., fuel pump/ turbocharger/ water pump/ transmission pump etc. within the special guarantee period shall not be treated as failure of engine and transmission but the failed item is to be replaced with new assy. and should work up to completion of the special warranty period. No repair of such components or use of spares supplied against Clause: C6.2 shall be allowed within the special guarantee period.

However, spares supplied against Clause: C6.2 can be used for repair/replacement of above assemblies after attaining above mentioned special guarantee period as indicated against individual item. The special guarantee shall be limited for the period of contract only

8. Performance Guarantee

In accordance with the provisions of clause C 6.2.6 of the technical specifications the expected working hours per annum are 4500 (Four Thousands five Hundreds) hours. The expected working hours per annum as indicated are only approximate hours and may vary +/- 500 hours.

In accordance with the provisions of clauses C 7.2.2 and C 7.3.2 of the technical specifications the supplier shall guarantee that the availability of each equipment shall be not less than 85% (eighty-five percent) annually for a period of 36 months

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from the date of accepted date of commissioning and 80% (eighty percent) annually for following 24 months.

9. Expected life of major assemblies

Manufacturer shall give expected life of major assemblies also in the Format given in Table below, duly signed. – Indicated in Annexure - 6

10. Information to Be Provided by The Supplier:

The Supplier shall furnish the following information. All technical information shall be in SI units.

10.1 General:

The information in the above format should be self certified.

- b) Details of tools to be provided with the equipment.
- c) Details of erection programs for the bid.
- d) Details of nearest Depot/Warehouse and Service Facility available for the present offer.

10.2 Technical Details (Information to Be Provided by The Supplier):

- a) Volumetric rating of the bucket according to ISO 7451 together with verification calculations and drawings (refer clause 4.1).
- b) Maximum bucket and arm cylinder digging forces measured according to ISO 6015.
- c) Schematic Drawing of the machine showing the position of the Centre of Gravity and it's distance from the Central Axis of Rotation under the following operating conditions:
 - i. Bucket at maximum digging force position with crawler tracks perpendicular to the face of the cut.
 - ii. Bucket at maximum digging force position with crawler tracks parallel to the face of the cut.
- d) Engine performance curves of net power, net torque and specific fuel consumption measured according to ISO 9249 along with test bed data.
- e) Calculation for determining the time for operating cycle.
 - i. Load the bucket to rated capacity over the maximum working range, swing through an angle of 90 degree, dump and return to dig.
 - ii. Hourly fuel consumption for the above operating cycle.
- f) Detailed technical descriptions of each system of the Excavator.
- g) Layout drawings and detailed description of all hydraulic systems and components.

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- h) Comprehensive commercial literature indicating therein complete technical specifications, the content of which must comply with ISO 7135.
- i) Schematic and layout drawings, details of the supplier, number, function and type of Automatic Centralized Lubrication System.
- j) Schematic and layout drawings and details of the Supplier, number, function and type of Automatic fire detection and suppression System.
- k) Details of Equipment Health Monitoring System
- l) Details of major bought-out assemblies and sub-assemblies indicating make, type, manufacturer's complete address etc.
- m) Operation and Maintenance Manuals in accordance with ISO 6750, with copies in CDs as stipulated in clause A.3

10.3 Dimensions, Weights and Performance Details : Indicated in Annexure - 6

11. Equipment Acceptance

Equipment Acceptance

The Equipment ordered will be finally accepted subject to the Supplier demonstrating to the Purchaser or its authorised representative (may be third party) that the equipment, or assembly or sub-assembly (selected at random by the Purchaser) when tested, meets the Performance Data provided by the Supplier in accordance with the requirements of clause 10. In case if testing facility for a particular parameter is not available at site, the Equipment ordered will finally be accepted subject to submission of Manufacturer's certified test copy for that parameter of performance data provided by the supplier in accordance with the requirements of clause 10. A detrimental deviation of up to 2½% will be accepted

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| 1 | Cycle Time at 90 deg swing | To be tested at site after commissioning, under operating conditions as stated in the Tender. The equipment may be operated, at the Supplier's discretion, either by the Supplier's personnel (who are to be deployed for training as per contract) or by the Purchaser's personnel who are to be authorised by the Supplier. |
| 2 | Hourly Fuel Consumption | To be tested at site after on 30 (thirty) operating days' average immediately after commissioning under operating conditions as stated in the Tender. The equipment may be operated; at the Supplier's discretion, either by the Supplier's personnel (who are to be deployed for training as per contract) or by the Purchaser's personnel who are to be authorised by the Supplier. |
| 3. | Engine Net Power & RPM | To be tested at Works as per ISO 9249. Equipment manufacturer's Test data/ Report should be submitted. |

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