

SO no 11000110420214 dt 11.01.2021; M/s Revathi Equipment Limited

M/F



**WESTERN COALFIELDS LIMITED**  
( A SUBSISIARY OF Coal India Limited )

MATERIALS MANAGEMENT WING, COAL ESTATE, CIVIL LINES, NAGPUR - 440 001.  
PHONE : PBX : 0712-2611381, 2510691 Extn : 5606, 5861, Fax : 0712-2510284

Supply Order No. 11000110420214

DT: 11.01.2021

**SUPPLY ORDER**

To,  
**M/s REVATHI EQUIPMENT LIMITED**  
331, POLLACHI ROAD,  
COIMBATORE 641050

Vendor Code: 526005  
Vendor Category: **M3M3**  
email: sivashankar@revathi.in

Dear Sir,

- Sub: Formal Order for supply of Diesel driven, Standard mast, Rotary Blast Hole Drill 160 mm.  
Ref : 1. WCL Tender Enquiry no: WCL-hq-pur-yvr-ra-e069-2020-21 (tender id 2020\_WCL\_178821\_1) (E-268921) opened on 07.09.2020, Price bid / reverse Auction held on 19.10.2020  
2. Your offer / Bid ID number: 546732 and subsequent submission of shortfall / confirmatory documents  
3. Your letter no WCL/160mm/SBS/01 dt 03.11.2020  
4. Your letter no WCL/160mm/SBS/01 dt 17/20.11.2020  
5. Your letter no WCL/160MM/SBS/01 09.12.2020  
6. Your letter no WCL/160mm/SBS/02 dt 27.12.2020  
7. Your email dt 28.12.2020

This has reference to above. We are pleased to place Formal Order on you for the supply of Diesel driven, Standard mast, Rotary Blast Hole Drill 160 mm (Replacement requirement / NCD) at the rates, following terms and conditions given and General terms and conditions of supply enclosed rates, following terms and conditions given:-

Description	Ordered Qty (nos)	Unit basic Price Rs.	Extended value Rs.
Procurement of Diesel driven, Standard mast, Rotary Blast Hole Drill 160 mm as per technical specifications , scope of supply given in Annexure A enclosed; <b>Revathi make, RBH C650D model;</b> (Replacement requirement/NCD): Material Code : 11404000007	4	1,44,17,563.00	5,76,70,252.00
Freight charges @ Rs.5,25,000.00 per equipment			21,00,000.00
Insurance charges @ Rs.20,000.00 per equipment			80,000.00
FOR Destination price of Drills (basic + freight + insurance)			5,98,50,252.00
GST @ 18% on FOR destination price of 4 drills			1,07,73,045.36
Total value of Equipment before availing ITC on GST			7,06,23,297.36
TCS @ 0.1% on total value of equipments before availing ITC on GST			70,623.30
<b>Total cost of equipments before availing ITC on GST + TCS @ 0.1%</b>			<b>7,06,93,920.66</b>

**Total Value of the order: Rs. 7,06,93,920.66** (Rupees seven crores six lakhs ninety three thousand nine hundred twenty and sixty six paisa only).

**Terms and Conditions:**

1. Price: The Prices are FIRM on FOR Destination basis inclusive of packing & forwarding charges, Freight and transit insurance upto destination. However, for FOR destination supply, Freight charges shall be paid extra as applicable against documentary evidence subject to ceiling of Rs.5,25,000.00 and Rs.20,000.00 per equipment respectively. Safe arrival of the consignment at destination shall be your responsibility. As mentioned by you in General Commercial Template (GCT) of TPS, supply of Equipment will be made from M/s Revathi Equipment Ltd, 331, Pollachi Road, Coimbatore 641050.

2. GST: GST shall be paid at actual against documentary evidence as applicable at the time of Dispatch within the stipulated delivery period. The current rate of GST applicable on equipment is 18%. Input Tax Credit benefit shall be availed by the consignee, for which you should submit GST Complaint Invoice. You have to comply with the terms and conditions of GST Act/ Rules such as issuance of Tax Invoices, ensure payment of GST and enabling mechanism to facilitate Input Tax credit by WCL. You should upload the Tax Invoices/ Debit Note/ Credit Note in GST Portal, make payment of GST and file returns in time, as prescribed under GST Act and Rule to facilitate WCL to avail Input Tax Credit (ITC) as per eligibility under GST. In case WCL is unable to avail ITC or any liability arises to WCL due to failure on the part of you to comply the above provisions , the entire amount including Interest (If any) borne by WCL shall be recovered

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*Explainer*

*[Handwritten signatures]*

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from you. The present rate of GST applicable on individual items of spares is as per Annex C, enclosed.

3. Delivery: The delivery shall be completed within three months to be reckoned from the 7<sup>th</sup> day of order date. No material to be supplied without delivery extension. Request for extension of delivery period to be made within the schedule delivery period. Even if the materials are unloaded at the Stores, the same shall be at the risk and cost of the supplier and shall not be accepted unless the supplier has obtained the extension of delivery period.

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 and the same will be available only for deliveries and not for offering stores for inspection ( in cases of pre- dispatch inspections) which should be made within the original delivery period or the re-fixed date of delivery.

If the stores are tendered for pre-dispatch inspection within the original delivery period stipulated in the contract and the firm delivers the stores within the grace period, the purchaser is bound to accept the stores even though the inspection was completed after the delivery date.

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.

In case of scheduled delivery period, grace period shall be limited to 25% of original delivery period or 21 days, whichever is earlier, irrespective of delay in particular phase of delivery

4. Guarantee / Warranty / Special Guarantee: (Also refer B.6 and B.7 of Annexure "A")

i) The Equipment will be warranted against any manufacturing defects/ workmanship for a period of 12 months from date of commissioning. Any defect observed on this account shall be attended to immediately and in no case beyond a period of one month. For specific warranty on assemblies and sub-assemblies, details given in Technical Specification may be referred to.

ii) You have confirmed and undertaken that "in the event of any breakdown or failure of performance due to defects in materials, design, workmanship, spare parts etc., WCL shall promptly notify you in writing of any claims arising under this warranty. The repairs, replacement or rectification work shall be carried out by you at site at no cost to the purchaser within 21 days of settlement of warranty claims.

"At no cost to the purchaser" means, you will have to bear all the expenses upto the destination site i.e. Ex-works prices, GST, Insurance, Inland transportation charges etc. as applicable to ensure free delivery of warranty replacement at WCL colliery sites.

You will be required to stock spares parts to take care of warranty period breakdown. Spares should be available within three weeks from the date of intimation of breakdown.

iii) You must ensure that there is no major breakdown due to manufacturing/ design defect during the warranty period. In case such breakdown occurs, the purchaser will reserve the right to extend the warranty period suitably.

b) Composite Warranty / Guarantee: You shall warrant that the equipment supplied under this contract is:-

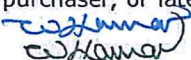
i) In accordance with the contract specifications.

ii) The equipment shall have no defects arising out of design, material or workmanship & the Complete Equipment shall be warranted for 12 months from the accepted date of commissioning.

iii. The warranty shall cover for total equipment so that ultimate responsibility lies only with the Equipment supplier although components may be supplied by different suppliers to you."

iii) The Equipment will be warranted against any manufacturing defects / workmanship for a period of 12 months from date of commissioning. Any defect observed on this account shall be attended to immediately.

In the event of any breakdown or failure of performance due to defects in materials, design, workmanship, spare parts etc., WCL shall promptly notify the supplier in writing of any claims arising under this warranty. The repairs, replacement or rectification work shall be carried out by the supplier immediately, at site at no cost to the purchaser, or latest within 21 days. "At no cost to the purchaser" means, you will have to bear









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all the expenses upto the destination site i.e. Ex- works prices, GST, Insurance, Inland transportation charges etc. as applicable to ensure free delivery of warranty replacement at WCL sites.

In the event that the operation of the plant is inhibited or frustrated as a result of any design defect or a flaw in the workmanship, materials in the Equipment/ component then the period referred in the clauses for Composite Warranty/ Guarantee & Performance Guarantee shall be extended for a suitable period and you will be have to undertake appropriate action for suitable rectification/ modification on the Equipment on topmost priority basis.

c) **Special Guarantee:** Following guarantee will apply for different component/ Sub assemblies from the date of commissioning:

i) Complete Engine System - 24 months or 6000 hrs (whichever is earlier)

In case of failure of engine system within 6000 hrs, the failed components of the engine system will have to be replaced / repaired depending on the merit of the case, free of cost by the supplier. In case of failure of engine system beyond 6000 hrs. the system will have to be replaced on prorata payment basis taking the life of the engine system as 7550 Whrs.

ii) Hydraulic System viz. Pumps, Motors & Cylinders- 24 months or 5000 hrs (whichever is earlier)

iii) Compressor- 24 months or 5000 Hrs. (whichever is earlier).

iv) Automatic Fire Detection and Suppression System-24 months or 5000 Hrs. (whichever is earlier.)

v) Automatic Lubrication System- 24 months or 5000 Hrs.(whichever is earlier).

vi) Dust Control System - 24 months or 5000 Hrs. (whichever is earlier).

vii) Under Carriage - 24 months or 5000 Hrs. (whichever is earlier).

viii) Engine hour meter - 12 months or 3000 Hrs. (whichever is earlier).

ix) Auto Electrical System - 12 months or 3000 Hrs (whichever is earlier).

x) Drill Rods - 12 months or 15000 Meterage of drilling (whichever is earlier).

In case of any Guarantee failure intimated reasonably in time to the supplier, the replacement or repair job (as per Guarantee settlement) must be completed within 21 days at site by you at no cost to the purchaser.

d. **Guaranteed Availability:** In accordance with the provisions of clauses B.7.2.2 and B.7.3.2 of the Technical Specifications, the Supplier shall guarantee that the availability of the equipment shall be not less than 85% (eighty five percent) for a period of 12 months from the accepted date of commissioning.

e) **Performance Bank Guarantee:** You have to submit performance bank guarantee as per format at Annexure - I & as per clause no 9, for 10% of the order value (landed cost) of equipment to cover the guarantee period i.e. for Rs. Rs.70,69,393.00 (rupees seventy lakhs sixty nine thousand three hundred and ninety three only) and the same shall be released on receipt of satisfactory performance throughout the guarantee period and fulfillment of contractual obligations failing which, action for further extension or encashment of PBG, as deemed suitable shall be taken. The Performance Bank Guarantee shall be released after expiry of validity period if no claim is pending. The PBG should be on equipment wise.

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 and Performance Guarantee period after confirmation from GM(Excv) HOD, WCL(HQ)s.

5. **Inspection: Pre-despatch Inspection:** WCL reserves the right to get the Equipment inspected before despatch by the representative of GM(Excv.) HOD, WCL Hqrs or any other agency appointed by WCL. Such inspection shall not (in case of any defects noticed later) entitle the supplier to plead and absolve from the obligations. Necessary Tools and Tackles for the Inspection shall be provided by the supplier. In case of Pre-despatch Inspection, The Equipment has to be despatched to consignee project within 15 days from the date of inspection and clearance by CIL / WCL representative.

**Final Inspection :** Final inspection shall be carried out by Consignee, after receipt of complete Equipment / stores at the Project site.

6. **Payment Terms:** Equipment and initial spares and consumables for 12 months to be supplied along with equipment:

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 submission and Acceptance of Performance Bank Guarantee valid for 15 months period from the date of commissioning of all the equipment.

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 Staff Officer of the technical department of the area / Area General Manager of WCL, where the equipment has been deployed and confirmation of receipt of DRR in respect of spares and consumables for first 12 months of warranty

*W. S. Kumar*  
*W. S. Kumar*

*[Signature]*

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period from the date of commissioning of the equipment by the paying authority.

Freight charges shall be paid at actual subject to ceiling of the above given prices.

7. **Security Deposit:** You are required to submit the Security Deposit. Security Deposit shall be for an amount of three per cent of the total landed value of the contract including all taxes, duties & other costs and charges, without considering the Input Tax Credit (ITC) against GST i.e. for Rs.21,20,818.00 (rupees Twenty one lakhs twenty thousand eight hundred and eighteen only). The Security Deposit shall be in the form of a Bank Demand Draft or in the form of a Bank Guarantee as per format enclosed as Annexure-H from a RBI Scheduled Bank in India (on a non-judicial stamp paper) as per clause no 9 within 15 days from date of notification of award or placement of order.

The Security Deposit shall be in the same currency in which contract is to be signed / Supply order issued.

In case of equipment, SDBG shall not be individual equipment wise. However, multiple Bank Guarantees for Security Deposit shall be permissible provided value of all the SDBGs totals to 3% of the contract value, and all are submitted simultaneously within the specified time schedule and all of them are in the same prescribed format of SDBG without linking to any particular equipment.

The SDBG shall remain valid up to 3 months after completion of supplies and acceptance of materials by the consignee in case of supply of Materials and in case of contracts for equipment involving installation and commissioning, 3 months after the supply and commissioning of all the equipment covered in the contract.

Security Deposit will be released within 30 days after completion of supplies and acceptance of material by the consignee in case of supply contract or after successful commissioning and on receipt of confirmation of Performance Bank Guarantee (s) for all the equipment covered in the contract in case of contracts for equipment and all those items/ goods involving installation and commissioning and PBG.

Security Deposit may be converted into Performance Bank Guarantee (PBG) wherever PBG is required at the option of the supplier. At the time of conversion of security money into PBG, it should be ensured that the amount of PBG should not be less than 10% of landed value of order. Wherever Security Deposit is converted into PBG, the operation of such SDBG/ Performance BG shall be guided by the Performance Bank Guarantee clause.

If you fails to deposit the security deposit within 15 (fifteen) days from date of notification of award/ placement of order, another opportunity shall be given to them for submission of Security Deposit within next 15 days. If you still fails to deposit the security deposit within the extended period but executes the supplies within scheduled delivery period, the submission of Security Deposit shall be waived, as the purpose of submission of SD is fulfilled.

If you fail to deposit the SD within the extended period and no supplies are made, the order shall be cancelled and the case shall be processed to order elsewhere at firm's risk and cost. Moreover, the firm's performance is to be kept recorded for future dealings with them. Further, if during execution of the contract, the firm fails to extend the Bank Guarantee for Security Deposit, suitably as required, the same shall be recorded as unsatisfactory performance for future dealings apart from taking any other penal action as may be deemed fit by WCL.

In cases where the you will not submit the security deposit even within the extended period for SD submission but has supplied the materials either in full or in part after the extended period for SD submission, the SD shall be deducted from the first bill or in case of insufficient amount from subsequent bill(s) of the supplier till the full SD amount is deducted. Further, **a penalty equivalent to 0.5% (half percent) of SD amount** for delay of each week or part thereof (period of delay is to be calculated from the 31st day from the date of notification of award/ placement of order to the date of receipt of full SD/ deduction of full SD) shall be levied subject to a maximum of 10% of the contract value.

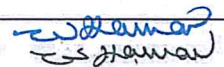
**Note: For unsatisfactory performance and / or contractual failure, the security money shall be forfeited.**

**9 Bank Guarantee towards SDBG / PBG (as per clause no 14 of section III)**

For arriving at the value for Bank Guarantee to be submitted, the order value will be arrived at by adding all the Taxes & Duties applicable to the Free Delivery at Site Price of the materials on order as applicable on the date of opening of price bid.

The bank guarantee issued by the banker of the firm shall be operational for all purposes at Nagpur branch (Maharashtra). The Bank Guarantee issued by the issuing bank on behalf of the supplier in the favour of Western Coalfields Ltd shall be in paper form as well as issued under "Structured financial messaging system". The details of beneficiary for issue 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,





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	9C/A & 9C/B, Ground Floor, Shriram Towers, LIC Square, Nagpur - 440001, Maharashtra
IFSC code	ICIC0000059
Bank Manager Name & Ph no:	UJJWAL KITE: Ph n: 0712-6627389
BG ADVISING MESSAGE - 760COV / 767COV via SFMS	
Field Number	Particulars
7035	ICIC10000059
7037	WCL556096497

The original bank guarantee issued by the issuing bank shall be sent by the issuing bank to the following address by Registered post / Speed Post to " General Manager (MM) I/c, Materials Management Wing, Western Coalfields Limited, HQ, Coal Estate, Civil Lines, Nagpur - 440001, Maharashtra" by **Registered Post/AD**.

Any extension / amendments to the BG shall be done following the same procedure as above.

For ready reference and updation of BG in WCL portal , it is necessary that BG issuing / amending bank send the BG advise in the form of message format 760COV /767COV via SFMS ( Structured Financial Messaging System ) as provided by RBI.

In the event of BG issuing / amending bank not sending the message 760COV /767COV or committing any error while capturing the details at least in the above mentioned field, BG confirmation through online portal would not be updated if issuing bank does not adhere to advisory, WCL will not be responsible

The above particulars are to be incorporated by the issuing bank properly while issuing BG under SFMS mode to avoid any problem in future.

Original bank Guarantee issued by the Issuing Bank shall be sent by the Issuing Bank to concerned Department/Area by Registered/ Speed Post.

The beneficiary's bank/advising bank shall send a copy of advice received under SFMS mode to concerned Area/HQ through e-mail at their e-mail id and provide print out of the said message from advising bank with seal and signature, to the Finance Dept, of concerned Area/HQ. For this purpose, each Area/HQ shall provide their e-mail ID to the Advising/Beneficiary Bank.

Under SFMS, extension/subsequent amendments to the BG can be done following the same procedure as stated above.

For encashment, the BG shall be placed directly before the issuing bank at Nagpur Branch.

**10. Consignee & Allocation:- GSTIN no 27AAACW1578L1ZW** (for areas in Maharashtra State)

Qty	Project	Area	POSTAL ADDRESS OF THE CONSIGNEE
1 no	Sasti OC	Ballarpur	The Depot Officer, Regional Stores, Western Coalfields Limited, Ballarpur Area, PO : Sasti colliery Distt Chandrapur (M.S) 442 701
1 no	New Majri OC	Majri	The Depot Officer, Regional Stores, Western Coalfields Limited, Majri Area, PO : Shivaji Nagar, Distt:-Chandrapur (M.S) Pin: - 442 603
1 no	Neeljai OC	Wani	The Depot Officer, Regional Stores, Western Coalfields Limited, Wani area, PO : Ghugus Colliery, Distt:-Chndrapur (M.S)
1 no	Padmapur OC	Chandrapur	The Depot Officer, Regional Stores, Western Coalfields Limited, Chandrapur Area, PO : Durgapur, Distt:-Chandrapur (M.S) Pin: - 442 403

**11. Paying Authority:** General Manager (Finance), Western Coalfields Limited, Coal Estate, Civil Lines, Nagpur - 440 001

**12. EFT Details** (Bank mandate submitted by you is enclosed at Annexure "J")

Name of the Bank	Bank of India
Branch & Location	Main Branch, 324, Oppanakara Street, Coimbatore 641001
Account Number	823330110000008
Nature of Account	Cash Credit
IFS CODE of the Branch	BKID0008200

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

**14. Liquidated Damages clause:** 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:

- (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

*W. Kumar*

*[Signature]*

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- 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. 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 Liquidated Damages.

**15. SUBMISSION OF BILLS:**

a. **For claiming 80% payment for equipment & 100% payment of 1<sup>st</sup> year Spares**, following documents are to be submitted along with original bills as per terms of the supply order to the consignee.

- (i) Pre-receipted and stamped GST compliant Invoice as per GST rules and Act indicating HSN code
- (ii) Packing list in original list giving details of bill of materials, if applicable. (Invoice should be strictly as per GST rule 2017), if applicable.
- (iii) Consignment note / RR/ LR in original.
- (iv) Warranty / Guarantee certificate, if applicable.
- (v) Manufacturer's test certificate, if applicable.
- (vi) DGMS / BIS / Pre dispatch inspection certificates / any other document, if required as per the contract.
- (vii) Price Certificate and Price Fall Certificate
- (viii) Any other document indicated elsewhere in the order & specifications

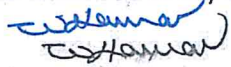
b. **For Claiming 20% payment of Equipment** and the following documents are to be submitted

- (i) Pre-receipted and stamped bill for 20% payment.
- (ii) Commissioning Certificate from the respective Area General Manager / Staff Officer (Excv) of area
- (iii) Any other document indicated elsewhere in the order

**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, un damaged 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."

**17. Lowest Price Certificate:** You have undertaken that the prices quoted by them for the offered 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 also to submit the certificate as under:

"This is to certify that the prices quoted by us for the offered 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"

  
T. HANMAN





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**Enclosures: -**

- Annexure-A : Scope of supply, Technical specifications, Brochures, Literature  
Annexure B: List of Filter elements and O Rings required for 1<sup>st</sup> 3000 working hours  
Annexure-C: List of comprehensive tool kit and Special Tools  
Annexure-D: Major Bought out items list  
Annexure-E: Erection programme  
Annexure-F: Oil and Lubricant chart  
Annexure-G: Bank Mandate  
Annexure-H: Security Deposit Bank Guarantee format  
Annexure-I: Performance Bank Guarantee format  
Annexure-J: General Conditions of the Contract

**Copy to :**


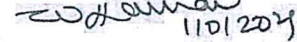
1. GM(Excv) HOD, WCL(HQ), Nagpur
2. AGM / SO(Excv)/SO(MM)/AFM/Depot Officer, WCL, Majri / Chandrapur / Wani / Ballarpur
3. GM(CP)/ GM(Fin.) I/c -1 / GM(Fin) I/c-II/ GM(P&P) , WCL Hq., Nagpur
4. RD, CMPDIL, RI IV, Nagpur
5. GM(MM), CIL, SECL, MCL, CCL, BCCL, ECL, NCL
6. TS to DT(P&P), WCL, Nagpur
7. Chief Manager(MM/Admn.), WCL(HQ) – The Landed value of the order is Rs. 7,06,93,920.66
8. IEM, Dr. (Ms) Nivedita Haran, 23, IFS Vilas, P-6, Builders Area, Greater Noida 201310
9. IEM, Shri A.K.Mohapatra, Qrs no B-5/9, Unit – 9, Bhoi Nagar, Bhubaneswar 751022
11. GM(Excv), EED, Coal India Ltd., "Coal Bhawan", Premises no 04 MAR, Plot No AF III Action Area 1A, New Town, Rajarhat, Kolkatta 700156, West Bengal

This is issued with the approval of Director (Tech) P&P

Indent details: Indent No. 1490 dated 04.08.2020.

Budget Reference:

**Capital Budget** : WCL/CAP/HEMM/2020-21/12/07/39 Dated, 09.01.2021 for Rs.706.94 Lacs.

  
  
11/1/2021

**Chief Manager(MM)**

  
  
11/1/2021

**Chief Manager(MM)**

8/6/



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**18. 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) It shall be responsibility of the supplier to inform the purchaser of offer to supply / supply of the similar /ordered 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.
- (iii) The supplier shall submit a certificate along with the bill(s) that it has not offered to supply / supplied the similar /ordered 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. "

**19. 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.

**20. Manufacturing certificate:** As the order is being placed on the basis of consideration that you are a manufacturer of the ordered material, you will have to provide a certificate to the following effect on the body of each bill.

"Certified that the items supplied and included in this bill/ invoice are of our own make and have been actually manufactured in our works situated at \_\_\_\_\_ (address of the factory)

**21. Integrity Pact:** Integrity Pact as per format (Annexure E of the NIT) signed and furnished by you along with the offer shall remain valid and applicable for this contract.


The name of the IEM for this tender are:


Dr. (Ms) Nivedita Haran, 23, IFS Vilas, P-6, Builders Area, Greater Noida 201310  
Shri A.K.Mohapatra, Qrs no B-5/9, Unit - 9, Bhoi Nagar, Bhubaneswar 751022

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

Unless otherwise specified above, the purchase order shall also be governed by the terms and conditions given in the General conditions of the Contract enclosed.

This order is issued with this acceptance. Kindly acknowledge the receipt of this order.

  
11/1/2021  
(Dr. Y. Venkata Ramana)  
Chief Manager (MM)

Yours faithfully  
  
11/1/2021  
(K S R Divakar)  
Chief Manager (MM)

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**TECHNICAL SPECIFICATIONS**

**1. SCHEDULE OF REQUIREMENT**

Description	Quantity
<b>DIESEL DRIVEN, STANDARD MAST, ROTARY BLAST HOLE DRILL 160 MM (Replacement required / NCD)</b>	4 Nos.

**PART A**

**A. Scope of Supply.**

**A.1 Equipment Package** " You are required to bid as per the equipment package detailed.

**A.2 Supplementary Items**

- I. The Equipment shall be provided with a comprehensive tool kit, which shall include any special tools required for erection, commissioning and for the maintenance and repair of all the equipment.
- II. First fill of all oils, grease and lubricants needed for test and commissioning of each equipment.
- III. All filters and O-rings including standard Engine filters **required for first 3000 working hours.**

**A.3 Information & Drawings:**

You shall provide following manuals, before the scheduled installation date for each equipment

- (a) One suitable illustrated copy of operating, repair, and maintenance instructions for all the equipment written in the English language, substantially bound in book form.
- (b) One suitably illustrated copy of detailed Spares Parts Manuals covering all plant, equipment and accessories substantially bound in book form.

You shall also submit the data identified in the specifications for each item of Equipment proposed. In addition to the Equipment drawings requested, where appropriate You shall supply detailed drawings illustrating erection/assembly site(s), foundation and accommodation requirements for such items as drive motors, switch installations, etc.

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

You shall provide the service of Specialist Technicians to supervise the installation/erection/assembly, commissioning and any performance testing of the plant, equipment and accessories supplied.

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**

You shall also be responsible for the provision and delivery content of any suitable training programmes, including audio visual presentation/training, necessary for operation and maintenance including Dos & DONTs and trouble shooting procedure for the equipment. The duration, venue and type of training program shall be mutually decided, considering the requirement of Area / Project in consultation with GM(Excv.)HOD, WCL(HQs.)

**PART – B**

**B. GENERAL REQUIREMENTS.**

**B.1 Geography and Climatic Conditions.**

**Elevation:** The natural surface varies from 100 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
		- 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 April to September - South to South Westernly

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October to March  
Speed

- North Westernly
- 8 Km per hr average
- 100 Km per hour max.

Under foot Slushy and highly abrasive

## **B.2 Goods (Equipment & Machinery)**

Detailed specifications of the equipments to be supplied are given in 'Part C', 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.

Electrical equipments shall provide all protection devices, controls and interfaces for the equipment to operate safely and efficiently.

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.

### **B.3 Standard:**

(a) Beside conforming to the standards specified in the equipment specifications in Part-C, **the Equipment shall also has to meet approval 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.)*)

**B.4 Suppliers Responsibility:** The Purchase requires that You shall accept responsibility for the provision of complete operable and compatible Equipment and systems within the Scope of Supply. This documents identifies only the major items required for the installation and You shall ensure that the total supply includes all necessary equipments for it to function effectively and safely. Any additional items You considers necessary to ensure compliance with such requirements shall be identified and included.

If You observes that this specification documents contains any anomalies, ambiguities, flaws, errors or omissions, You shall immediately bring these to the attention of the Purchaser.

You 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 You in conjunction with the Purchaser's nominated personnel.

### **B.5 Spare Parts Provisions & Service Support**

**B.5.1 Availability of Spare Parts:** All items and Equipments proposed shall be of current design and manufacture. You shall warrant that sufficient spares and servicing facilities will be available to maintain the equipments in use through out its life. You must have adequate facility for product support for such machines in India with nearest Depot / Warehouse, service facility and personnel.

**B.5.2. Provisions of Spare Parts :** Within the Contract Price, the Purchaser will agree to purchase all filters and O rings including standard engine filters required for first 3000 hours of operation of each equipment.

You shall stock sufficient fast moving and maintenance and other spares in their Local Depots to ensure maximum availability of their equipment.

**B.5.3 Emergency Spare Parts:** You shall ensure that spare parts required urgently by the Purchaser for repair of breakdown equipments are supplied at over riding priority.

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**B.5.4 Lifetime Spare Parts:** You have undertaken and guaranteed 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 Plant throughout its working life. In the event that You wishes to terminate production of such Spare Parts, You shall:-

(a) give not less than six months notice in writing of your 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.

In any event, You shall not seek to terminate manufacture of spare parts or a period of not less than ten (10) years from taking-over.

**B.5.5. Oil, Lubricants and Fluids :** You shall provide to the purchaser a detailed schedule of all necessary oils, lubricants, fluids for the operation and maintenance of equipment and specify the appropriate Grades, Indian and International standard references (whichever is applicable), suitable for different assemblies.

#### **B. 5.6 Support Infrastructure**

The necessary after sales service & Support Net work for the offered Equipment should be available in India, preferably nearer to the mining areas of WCL/ Nagpur to support the product. Availability of sufficient skilled service personnel and spare parts depot/ ware house, to support the Equipment in WCL mines should be maintained by You.

**B. 5.7 General:** Nothing in this clause B.5 shall relieve You of any guarantee, Availability, performance or other obligations or liabilities under the contract.

#### **B.6 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 and the complete equipment shall be warranted for 12 months from the accepted date of commissioning.
- c. The warranty shall cover for total equipment so that ultimate responsibility has only with you although components may be supplied by different suppliers to you

#### **B.7 Performance Guarantee :**

##### **B.7.1 Introduction.**

**B.7.1.1** You 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.

**B.7.1.2** Where equipment supplied under the Contract fails to meet the criteria of the Availability Guarantee, You 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.

**B.7.1.3** You shall provide the services of such personnel at site within seven (7) days of notification by the Purchaser that the availability criteria has not been met in any one (1) month.

##### **B 7.2 Guarantee**

**B7.2.1** You 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.

**B7.2.2** You 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

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

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**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 .
- 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 your failure or your Agents or Representatives.

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

You shall state the number of hours per day required to carry out (a) and (b) above.

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

1. Providing normal and proper maintenance, including preventive maintenance in accordance with Your standard/published recommendations, and making all necessary repairs using only genuine manufacturer's spares.
2. Providing cooperation to all Supplier's authorized representatives, complying with all reasonable procedural suggestions to improve efficiency of machine operation or reduce downtime.
3. Where appropriate, providing and maintaining such conditions as :
  - i. proper electrical supply
  - ii. Terrain area
  - iii. Bench preparation.
  - iv. Reasonable floor conditions.
4. Providing all your authorized representatives access at all reasonable times to the machines service and repair facilities.

5 Maintaining of 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 your representative.

**B.7.2.3** Waiting time for maintenance shall not be taken as downtime.

**B.7.2.4** The average routine maintenance hours shall not be more than two hours per day. In case the site personnel of WCL are unable to carryout the daily maintenance in two hours in such case You shall carry out the maintenance within two hours and train the project personnel to enable them to carryout the normal routine maintenance within two hours every day. In the event the project personnel are unable to carry out the routine maintenance in two hours time every day even after the demonstration & training by You, the time taken over & above two hours by the project personnel will not be counted as downtime.

**B.7.2.5** You will promptly report any breakdown in any major sub assembly/sub-assembly to GM(Excv) HOD, WCL.

### **B 7.3 Effect and Duration of Guarantee :**

**B.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.

**B.7.3.2** This guarantee shall remain effective for twelve (12) months from the date of commissioning irrespective of the hours operated by the equipment during the period of the guarantee.

**B.7.3.3** In the event that the equipment fails to achieve the Availability herein provided during this twelve (12) months period, You shall be liable to pay to the purchaser, as Penalty, a sum equal to as indicated hereunder for each equipment :-

- a) 1% of the delivered price of the equipment for every percentage reduction from the Guarantee Availability for the first 5%
- b) 10% of the delivered price of the equipment for reduction beyond 5% from the Guaranteed Availability.

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In case the fall in percentage availability below 85% exceeds 10%, the equipment will be rejected outright and You will have to refund the full amount of cost of equipment as per the supply order and You shall take back the equipment at no cost to the Purchaser.

You has however the option to modify the equipment, if felt necessary, to bring its availability to the guaranteed level within three (3) months after expiry of initial guarantee period of twelve (12) months from the date of commissioning.

In the event of further reduction of availability during total fifteen (15) months period, then the penalty shall be imposed on the basis of availability achieved during the period of fifteen (15) months.

**B7.3.4** When You are unable to supply the replacement of a failed part under warranty within 21 days of giving intimation by the consignee and if the machine is commissioned by using the spares from the stock of the project the period (after 21 days) till You replaces the part under warranty shall be treated as "Deemed Breakdown"(the credit for keeping machine available shall not be given to You).

**B7.3.5 SPECIAL CONDITION :** The machines under supply against this order should have the same major assys /sub assys which were fitted on the machines supplied against CIL's /WCL's last supply order. In case any change is contemplated prior clearance of CIL/WCL will be necessary.

For close monitoring of the performance of equipment under warranty, the Project authority jointly with you must furnish the information on **monthly basis** to the Area Staff Officer (Excv). On completion of the Performance Guarantee period, a consolidated statement in the said proforma must be sent to GM(EXCV)HOD of the subsidiary company for judgment regarding performance of the equipment.

#### **B.8**      **Quality Assurance**

**B 8.1** You should furnish in detail its quality assurance plan for various stages of manufacture. The Quality Assurance Plan shall comply with an internationally recognized quality assurance standard such as ISO 9000.

**B.8.2** You shall provide facilities to Purchaser or their authorized representatives, when so required by them, 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 your own manufactured items.

**B.8.3** The Purchaser or his agent, when so required by him, shall also be provided with samples of "bought-out" materials for the purpose of undertaking independent tests which independent tests shall be at the expense of the Purchaser.

#### **PART - C**

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, 160 mm, Standard Mast, Diesel driven, Rotary Blast Hole Drill.

2. References

**The following International Standards are referred to in, and form part of, the Specification**

- ISO 2867: Earth-moving machinery - Access System
- ISO 3449: Earth-moving machinery - Falling-object protective structures - Laboratory tests and performance
- ISO 3457: Earth-moving machinery - Guards and shields - Definitions and Specifications
- ISO 6014: Earth-moving machinery - Determination of ground speed
- ISO6405-1: Earth-moving machinery - Symbols for operator controls and other displays - Part I : Common symbols
- ISO6405-2: Earth-moving machinery - Symbols for operator controls and other displays - Part II : Specific symbols for machines equipment and accessories
- ISO 6747: Earth-moving machinery - Tractors - Terminology and commercial specifications
- ISO 6750: Earth-moving machinery - Operation and maintenance - Format and content of manuals
- ISO 9249: Earth-moving machinery - Engine test code - Net power requirements.

3. **Design Criteria :** The Drill shall be capable of operation for protracted period on a system of 3 shifts each of 8 hours duration per day throughout the year in hard, highly abrasive, sandstone/ rock and slushy conditions. The Drill should be suitable to operate in ambient temperature from 0°C to 50° C and relative humidity of 97%.

The Drill shall be suitable for drilling holes of 160 mm diameter and have a single pass capacity of not less than 7.60 meters.

The major assemblies and sub-assemblies must be suitably located to provide proper weight distribution so that the centre of gravity of the machine, with the mast both up and down, falls well within the machine to

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ensure stability during drilling and travelling up and down gradients. The total working weight of the machine should not be less than one and half times the pull down force.

### 3. Technical Specification

#### 3.1 Diesel Engine

The Drill shall be powered by a direct injection, 4-Stroke Diesel Engine of not less than 200KW net power measured between 1700 and 2000 r/min. The engine shall be provided with 24V Electric starting, dry type 2-stage Air-Cleaner with manual/ automatic dust evacuator and dust level indicator and 2-stage fuel filter with water separator.

The engine shall have a water jacket cooling system, thermostatically 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 drill to continuously operate at the full rated output at the maximum ambient temperature.

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 equipped with an over-speed governor.

#### 3.2 Hydraulics

The Hydraulics should be powered through Diesel Engine for operating (where applicable) propel, feed, rotation, travelling jacks, mast articulation, utility hoists, breakout wrench, etc. The hydraulic pump, motors and cylinders should be field proven and have suitable ratings with in built protection from surge, cavitation, loss of oil due to hose leakage, burst, etc. As far as practicable reputed single make pumps, motors, cylinders and valves, etc. shall be used in the machine.

A suitable system shall be provided for effective cooling of the hydraulic oil to improve the life of hydraulic components.

**3.3 Hoses :** All hoses shall be grouped as far as possible and suitably clipped to lessen damage from scuffing. Any hydraulic hoses located within the operators can should be guarded sufficiently to deflect fluid under pressure, should a leak develop.

**3.4 Mast:** The mast should be a rugged structural steel constructed with a suitable guide for the rotary head. Raising and lowering of the entire mast shall be accomplished hydraulically with safety check valves to prevent the mast from falling in the event of power or hose failure. Raising and lowering of the mast should be possible with all the specified numbers of drill rods stored in the rack.

A mechanical lock shall be provided to hold the mast securely in the vertical position. Mast hinge and hydraulic cylinder mounting points should have adequate lubrication to ensure easy movement of the mast.

**3.5 Rotary Head :** Rotation should be accompanied by a suitably designed hydraulic/pneumatic motor with variable speed from 0-100 r/min. The available torque should not be less than 3210 Nm. A suitable arrangement should be provided to reduce shock loads and protect drill rod threads.

**3.6 Feed :** Feed should be accomplished by a suitably designed hydraulic/pneumatic motor with either a chain with the provision of automatic feed or an equivalent proven system. The pull down force shall be not less than 13,600 kg.

A direct reading pressure gauge, with vibration proof mounting, shall be provided to measure the pull-down force.

**3.7 Drilling Rods :** The outside diameter of the drill rod should be not less than 127 mm. The wall thickness of the rods should be 10 mm  $\pm$  5%.

The drill rods should preferably be provided with BECO threads and hexagonal/square head slot at rod ends for screwing and unscrewing arrangement.

The hoisting of drill rods should be achieved through a suitably designed system with sufficient hoisting capacity for efficient operation of the machine. The drill should also have a suitable drill stem loader for easy transfer of rods.

The drill shall have one rod in rotary and two rods in carousel. The drill shall be provided with suitable hydraulic breakout wrench for breaking the tool joints.

**3.8 Levelling :** The drill level shall be provided with suitable hydraulic levelling jacks and a spirit level in the operator's cable for quick levelling of the machine. The jacks should be provided with safety check valves.

**3.9 Undercarriage :** The undercarriage shall be heavy duty with an adequate quantity of supporting track and carrier rollers each side and provided with a track of suitable length and width to ensure that the ground bearing pressure does not exceed 100kPa + 10%. Proper track tensioning arrangement shall be provided. Rollers and idlers should be life time lubricated. The machine shall be provided with a tow-bar. The

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make of undercarriage to be specified.

**3.10 Propel:** An independent hydraulic motor driven propel system driving the track sprocket shall be provided with in-built fail safe braking arrangement. The drive system shall allow the machine to be towed. The braking system shall be so designed that it is able to stop the drill under all travelling conditions.

**3.11 Compressor:** The drill shall be fitted with a proven quality screw type compressor of capacity not less than 600 cfm (17m<sup>3</sup> / min.) free-air at a minimum pressure of 450 kPa (4.57 kg/sq.cm).

The compressor should have two stage air filtration. It should also have pressure gauge, safety valve for discharge lines and oil level indicator.

**3.12 Filters:** All filters for the compressor and hydraulic system must be so designed that the rated life of compressor and hydraulic components can be obtained, considering the specified dusty duty conditions in which the drill will have to work.

**3.13 Machinery House :** The machinery house shall be made of steel sheeting supported by a steel structure and shall cover the engine , compressor and drive system. It shall be designed to give ready and safe access to personnel and 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 shall comply with ISO2867.

**3.14 Dust Control System:** The Equipment shall be provided with a suitably designed, high-efficiency and Approved Type Dust Prevention & Suppression System, to eliminate dust hazards to the operator and equipment.

Provision for **following two types of systems** shall be made on the Equipment:-

- (i) **Wet Drilling type** Dust Prevention & Suppression System.
- (ii) **Non Visible Emission type** Dust Prevention & Suppression System (**DGMS Approved**).

**Both** the above systems shall be of reputed make & model with proven performance and the Equipment shall be suitable for operation with either type of the Dust Prevention & Suppression System.

**3.15 Operator's Cab :** A lockable, fully insulated AIR CONDITIONED, sound suppressed operator's cab with safety glass and a cooling fan shall be provided. All controls shall be positioned for safe and convenient operation from the operator's seat. All controls, gauges and meters shall be clearly and permanently marked with easily recognizable symbols. The operator's seat shall be a fully adjustable bucket type with foam rubber cushion and best quality upholstery. The space inside the cabin shall be sufficient enough to operate the machine with ease and comfort.

Suitable Protection "Falling object protective Structure "shall be provided to avoid possible ingress of material/ objects from the surroundings of the equipment into the operator's cab in accordance with the ISO -3449:2005.

**3.16 Automatic Lubrication System:** The drill should be provided with an automatic centralised lubrication system consisting of high pressure greasing pump, solenoid valve and electronic timer for lubricating the non moving greasing points. Warning alarm, fault level indications etc for the monitoring the same shall be provided inside the operators cabin.

**3.17 Electrical Equipment :** The drill shall be provided with 24V DC electrical system, including the following:

- a) Suitably rated Alternator & Self Starter of reputable make
- b) Reputable make high capacity Batteries.
- c) Battery isolation switch

All electrical circuits shall be protected adequately rated fuses which shall be easily accessible for maintenance. At least two spare fuses of each size shall be provided in each fuse box.

**3.18 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.

### **3.19 Guards and Shields**

Adequate guards and shields shall be provided throughout the drill.

**3.20 Fire Extinguishers :** Minimum 2 nos. of fire extinguishers shall be provided at strategic points on the drill, suitably mounted in heavy duty brackets for ease of removal. The extinguishers shall be dry powder (cartridge type) with a minimum capacity of 5 Kg and shall comply with Indian Standards IS:2171.

**3.21 Automatic Fire Detection and Suppression System :**A suitable Automatic Fire Detection and Suppression System of reputed make (indigenous or imported shall be provided and suitably mounted in the

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Equipment. The system shall have provision of actuating it manually also. The materials and chemicals to be used in Fire Detection and Fire Suppression System to be supplied with equipment. Type and make of the system must be approved by DGMS. **The system shall be DGMS approved / compliant. You should submit DGMS approval / Self Certificate confirming that AFDSS fitted in the Equipment shall be in compliance with the DGMS circular and materials and chemicals used in the AFDSS shall also be in compliance with relevant IS standards along with the supplies.**

**3.22 Drill Efficiency indicator:** Drill Efficiency indicator may be mounted in the cabin to get real time information on the below parameters.

- i. Hole Depth
- ii. Rate of penetration
- iii. Distance from the bottom of the hole
- iv. Accumulated depth

**3.23 Auto Thread Lubrication:** Auto thread lubrication system should be provided to reduce the damage of the Drill rod.

**3.24 Centralised Roller Deck Bushing:** Suitable Centralised Roller Deck Bushing should be provided which helps to reduce torque on the drill rotary motor by reducing friction between the pipe and the deck bushing.

**3.25 Safety Ladder :** A ladder should be equipped with safety belt and fall arrester which automatically locks and prevents working personnel from falling from top of the mast and guiding system should be provided for climbing on the mast / tower.

**4. Auxiliary requirement to be incorporated/ supplied with the Equipments:**

**A) Misc items to be provided/ supplied with the drill :**

- a) 160 mm steel tooth rock roller drill bits – 2 Nos (Additional).
- b) Tow Bar
- c) Flex Master Coupling
- d) Fire proof exhaust pipe Blanket on exhaust side of engine.
- e) Baffle Plate – (Turbo side)

**B) Provision/ Safety-features to be made as per DGMS guideline/ Circular :**

- a) Each moving part of the machinery shall be guarded/ fenced and also ensure it's effectiveness all the time.
- b) Propel interlock (an electric interlock between Drilling and Propel operation)
- c) Fire resistant sleeves & conduits on the cables/ wires in the hot zone.
- d) Fire resistant Hydraulic Hoses and wiring near & inside the hot zone.
- e) Approved type Dust prevention or suppression system.
- f) Turbocharger guard.
- g) High Air discharge Temperature Switch.
- h) Low Lube oil pressure switch.
- i) Oil stop valve (electric solenoid type / Pneumatically operated pilot valve) in lubrication line of compressor
- j) Non bump circuit.
- k) Tower Lock.
- l) Propel Joy Stick- spring loaded type, to return to neutral (Dead man safety).
- m) Disc brake and brake valve and its testing parameters.
- n) Lock check valve for preventing creeping in drill.
- o) Seat Belt.
- p) A Safety ladder with BELT shall be provided for climbing on Mast / Tower.
- q) Breakout wrench
- r) Unloader Valve
- s) Emergency Push button for immediate Shut-off in :-
  - (i) Operator's Cabin
  - (ii) Rear End of the Main Frame
  - (iii) Propeller Pendant
  - (iv) Rear end
- t) All the safety features provided in the equipment must comply DGMS Notification dated 01.10.2018.

**5. Special Guarantee / warranty :** The following Guarantee will apply for

- i) Complete Engine System - 24 months or 6000 hrs (whichever is earlier)

In case of failure of engine system within 6000 hrs, the failed components of the engine system will have to be replaced / repaired depending on the merit of the case, free of cost by the supplier. In case of failure of engine system beyond 6000 hrs. the system will have to be replaced on prorata payment basis taking the life of the engine system as 7550 Whrs.

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- ii. Hydraulic System viz. Pumps, Motors & Cylinders- 24 months or 5000 Hrs (whichever is earlier).
- iii. Compressor- 24 months or 5000 Hrs. (whichever is earlier).
- iv. Automatic Fire Detection and Suppression System-24 months or 5000 Hrs. (whichever is earlier.)
- v. Automatic Lubrication System- 24 months or 5000 Hrs.(whichever is earlier).
- vi. Dust Control System - 24 months or 5000 Hrs. (whichever is earlier).
- vii. Under Carriage - 24 months or 5000 Hrs. (whichever is earlier).
- viii. Engine hour meter - 12 months or 3000 Hrs. (whichever is earlier).
- ix. Auto Electrical System - 12 months or 3000 Hrs (whichever is earlier).
- x. Drill Rods - 12 months or 15000 Meterage of drilling (whichever is earlier).

In case of any Guarantee failure intimated reasonably in time to the supplier, the replacement or repair job (as per Guarantee settlement) must be completed within 21 days at site by the bidder at no cost to the purchaser.

6. **Performance Guarantee:** In accordance with the provisions of clauses B.7.2.2 and B.7.3.2 of the Technical Specifications, the Supplier shall guarantee that the availability of the equipment shall be not less than **85 % (eighty five percent)** for a period of 12 months from the accepted date of commissioning.

7. **Dimensions, Weights and Performance Details:**

<b>7.1</b>	Diesel driven, Standard mast, Rotary Blast Hole Drill 160 mm	
<b>7.2</b>	Make, Model	Revathi Make, C650D RBH drill
<b>7.3.1</b>	<b>Working Range</b>	
	a. Hole Size Range (mm)	160 to 200 mm
	b. Drilling Depth - single pass (m)	7.62 mtrs
	c. Total Drilling Depth(m)	22.86 mtrs with 3 Rods
<b>7.3.2</b>	<b>Performance</b>	
	a. Pull-down capacity (kg)	13,600 kgs
	b. Bit load at peak power (kg)	14,745 kgs
	c. Feed rate at peak power (m/s)	Fast Feed : 0.22 m/s & Slow Feed : 0.04 m/s
	d. Hoisting capacity (kg)	9650 kgs
	e. Hoisting speed (m/s)	Fast Feed : 0.38 m/s
	j. Bailing Velocity (m/s) for 160 mm drill hole	39.75 m/s with 160 mm drill
	k. Maximum propel speed (m/s)	0.53 m/s on plains & 0.25 m/s on gradients, both with mast down
	l. Gradeability: Mast raised	1 in 10(10%)
	m. Gradeability: Mast lowered	1 in 4(25 %)
<b>7.3.3</b>	<b>Machine weights</b>	
	a. Construction	about 26,500 kgs
	b. Operating	about 27,700 kgs
<b>7.3.4</b>	<b>Basic Dimensions</b>	
	a. Length: Mast raised	9.06 mtrs
	b. Length: Mast lowered	11.11 mtrs
	c. Width	4.33 mtrs
	d. Height: Mast raised	11.03 mtrs
	e. Height: Mast lowered	4.80 mtrs
	f. Mast length	9.85 mtrs - measured between mast table and mast crown
<b>7.3.5</b>	<b>Engine</b>	
	a. Manufacturer and Model	CUMMINS INDIA MAKE, NT 855C MODEL
	b. Number of cylinders	IN LINE 6 CYLINDERS
	c. Bore (mm)	140mm
	d. Stroke (mm)	152mm
	e. Displacement (m3)	14 litres
	f. Net power at ..... r/min	220 kW AT 1800 RPM

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	g. Maximum Torque at-----r/min	1251 Nm AT 1400 RPM
<b>7.3.6</b>	<b>Hydraulic System</b>	
	a. Make, Model, Number, flow rates and operating pressures of pumps	As per annexure
	b. Make, model, number and ratings of motors	As per annexure
	c. Make, model, number, piston diameters and stroke lengths of cylinders	As per annexure
	d. Relief valve operating pressures	As per annexure
	e. Oil quantity in system and tank	190 litres in system and 460 litres in tank
	f. Filtration system type	10 microns return line filter
<b>7.3.7</b>	<b>Feed</b>	
	a. Type, make and model of feed chain (if applicable)	Twin chain system . Chain of TI Diamond / Renold make. Model Q Series(TI Diamond) / 140-1HX (Renold). 1-3/4" size.
<b>7.3.8</b>	Feed rate	Fast Feed : 0.22 m/s & Slow Feed : 0.04 m/s
<b>7.3.9</b>	<b>Rotation</b>	
	a. Motors: Type, make and model	Geroler type. Charlynn (Eaton) make & 4000 series model
	b. Motors: Quantity, total HP & RPM	2 Nos. 24hp each (Total 48hp) & 290 RPM
	c. Motors: Maximum Rotational torque	3440 Nm
	d. Motors: Rotational Speed at peak power	65 rpm
	e. Motors: Rotational speed range	0 to 100 RPM
	f. Gear Box: Type, make and model	Spur Gear reduction type & Revathi Make
	g. Gear Box: Ratio	Gear Ratio - 2.866
7.3.10	Description of Dust Control	Electronic Controlled Non Visible emission dust collection system
7.3.11	Carousel	
	a) Number of rods	3
	b) Rod Length	25 FT
	c) Rod Diameter	5"
	d) Rod wall thickness	10mm +/-5%
7.3.12	Levelling Jacks	
	a.Rear Jacks-Make, Model, number, stroke and piston diameter	Apex 2 No's, 914mm , 125mm
	b.Front Jacks-Make, Model, number, stroke and piston diameter	Apex 1 No, 1219 mm, 125mm
	c.Pad Diameter- Front and rear	610mm, 457 mm
<b>7.3.13</b>	<b>Tracks</b>	
	a). Make of undercarriage	ITR/ Tragen
	a. Width & Length	Width 3 mtrs & Length 3.99 mtrs
	c. Number of bottom rollers	9 Nos on each side
	d. Number of carrier rollers	2 Nos on each side
	e. Ground bearing pressure	95 kPa
	f. Track link pitch	0.171 mtrs
	g. Center distance between sprocket and idler	3.2 mtrs
<b>7.3.14</b>	<b>Electrical System</b>	
	a. Starter: make and model	REIL / DELCO REMY MAKE; 50MT MODEL / LUCAS
	b. Starter control make and model	MINDA INDUSTRIES MAKE. IGNITION MODEL 504975

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	c. Alternator: make and model	REIL / DELCO REMY MAKE; 33-SI MODEL. 100 AMPS
	d. Batteries: numbers and rating (Make , Number & Ah and CCA rating)	CUMMINS PULSE MAKE. 2 NOS. 12V EACH. 160Ah and CCA @ -18 dec C as per IEC: 1650
	e. Lighting details ( Location, type, Numbers and rating)	24 V DC power supply from alternator powering 6 Nos of 70W Halogen Lamps
<b>7.3.15</b>	<b>Compressor</b>	
	a. Manufacturer and model	ELGI EQUIPMENT MAKE; 20 SERIES OR AXIS 225 MODEL
	b. Discharge rate (cum/min)	17 CU.M/MIN WITH TOLERANCES AS PER I.S. STDS
	c. Pressure (kPa)	689 kPa

**8. GUARANTEE / WARRANTY**

i. The Equipment will be warranted against any manufacturing defects/ workmanship for a period of 12 months from date of commissioning. Any defect observed on this account shall be attended to immediately and in no case beyond a period of one month. For specific warranty on assemblies and sub-assemblies, details given in Technical Specification may be referred to.

ii. You have confirmed that "in the event of any breakdown or failure of performance due to defects in materials, design, workmanship, spare parts etc., WCL shall promptly notify you in writing of any claims arising under this warranty. The repairs, replacement or rectification work shall be carried out by you at site at no cost to the purchaser within 21 days of settlement of warranty claims.

"At no cost to the purchaser" means, you will have to bear all the expenses upto the destination site i.e. Ex-works prices, GST, Insurance, Inland transportation charges etc. as applicable to ensure free delivery of warranty replacement at WCL colliery sites. You will be required to stock spares parts to take care of warranty period breakdown. Spares should be available within three weeks from the date of intimation of breakdown.

iii) You must ensure that there is no major breakdown due to manufacturing/ design defect during the warranty period. In case such breakdown occurs, the purchaser will reserve the right to extend the warranty period suitably.

**9. ERECTION & SUPERVISION:** You shall be responsible for the erection and commissioning within 30 days of the receipt of complete equipment at site. However, the purchaser will assist in providing necessary erection tools & tackles etc. and unskilled manpower for this purpose.

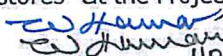
**10. INSPECTION AND TESTS**

- i. WCL or its authorised representative shall have the right to inspect and/or to test the goods to confirm their conformity to the contract. WCL shall notify the supplier in writing of the identity of any representative retained for these purposes.
- ii. The inspections and tests may be conducted at your premises or your subcontractor(s), at point of delivery and/or at the goods final destination when conducted on your premises or your subcontractor(a), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the purchaser.
- iii. Should any inspected or tested Goods fail to conform to the specifications, the purchaser may reject them and the supplier shall either replace the rejected goods and make all alternatives necessary to meet specification requirements free of cost to the Purchaser.
- iv. The materials will be inspected on arrival at site by the consignee, which will be considered as final. This shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representatives prior to the despatch of the Goods.

Nothing in these documents shall in any way release the supplier from any warranty or other obligations under this contract.

**11. INSPECTION CLAUSE : Pre-despatch Inspection:** WCL reserves the right to get the Equipment inspected before despatch by the representative of GM(Exc.v.) HOD, WCL Hqrs or any other agency appointed by WCL. Such inspection shall not (in case of any defects noticed later) entitle the supplier to plead and absolve from the obligations. Necessary Tools and Tackles for the Inspection shall be provided by the supplier. In case of Pre-despatch Inspection, The Equipment has to be despatched to consignee project within 15 days from the date of inspection and clearance by CIL / WCL representative.

**Final Inspection :** Final inspection shall be carried out by Consignee, after receipt of complete Equipment / stores at the Project site.

  
11/01/2021  
Chief Manager(MM)

  
11/01/2021  
Chief Manager(MM)

19/6/21



