

**Bharat Coking Coal Limited**

(A Subsidiary of Coal India Limited)

(A GOVT. OF INDIA UNDERTAKING)

KoylaBhawan, Koyla Nagar, Post- B.C.C.L. Township,
DHANBAD-826005 (Jharkhand)

OFFICE OF THE GENERAL MANAGER (MM)

Phone No. 0326-2230181 Fax No. 0326-2230183

CIN: U10101JH1972GOI000918

(UNDER JURISDICTION OF DHANBAD/JARKHAND COURT ONLY)

PURCHASE ORDER

NO. BCCL/PUR/615214/40T CRANE/17-18/74/72

REGISTERED POST

DATE- 24.08.2018

To,
M/s TIL LIMITED,
1, Taratolla Road
Garden Reach
Kolkata- 700 024FAX No -+033 24692143
Email: Sumit.Biswas@tilindia.com**Vendor Type : Manufacturer**
Vendor Code : 1/13/M/X/300**Sub: Supply of 1 No 40T Crane.**

Ref: 1) This office Global Open E-Tender No BCCL/PUR/615214/40T Crane/17-18/74/ dated 10.01.2018 opened on 19-02-2018 (online)

2) Your offer ID No 272702 Dated 08-Feb-2018

Dear Sirs,

With reference to the above, we for and on behalf of BCCL hereby place our ORDER for supply, installation & commissioning of 40T Diesel Powered Hydraulic Rough Terrain Wheel Mounted Mobile Crane along with all the accessories as specified in the scope of supply and technical specification at the following price, terms and conditions, technical specification as per Annexure-A and also as per our General Terms and Conditions enclosed.

SI No.	ITEM DESCRIPTION	U/M	Quantity	Unit Rate (Rs)
1	Diesel Powered 40 Tonne Hydraulic Rough Terrain Mobile Crane as per details given in Annexure- A , Make: TIL Ltd, Model: RT740B along with initial spares/ filters and O Rings required for first 3000 hours of operation of each equipment as per list enclosed	Num.	1	1,35,77,720.00
2	Freight			1,70,000.00
3	Transit Insurance			20,000.00
4	Subtotal (1+2+3)			1,37,67,720.00
5	IGST @ 18%			24,78,189.60
6	Total including GST (4+5)			1,62,45,909.60
7	TCS @ 1%			1,62,459.10
8	Total Procurement value (Approx.)			1,64,08,368.70

Round off to Rs 1,64,08,369.00

(Rupees One Crore Sixty Four Lakh Eight Thousand Three Hundred Sixty Nine Only)

TERMS & CONDITIONS:**1. PRICE:**

- FIRM and FOR destination. Packing & Forwarding Charges: NIL
- FOR destination: Safe arrival of the equipment is responsibility of M/s TIL Ltd

2. **GST:**

- (a) GST shall be paid extra as legally applicable during the scheduled delivery period. Present rate is 18 % [18% IGST].
- (b) The invoice shall be raised by you should contain following elements as per Section 31 of CGST ACT, 2017 and GST Invoice, Credit and Debit Note Rules, 2017.
 - name, address and GSTIN of the supplier;
 - a serial number of Invoice (should not be hand-written)
 - date of its issue;
 - name, address and GSTIN or UIN;
 - name and address of the recipient and the address of delivery, along with the name of State and its code;
 - HSN code of goods or Accounting Code of services;
 - Description and quantity of goods or services; total value of supply of goods or services or both;
 - taxable value of supply of goods or services or both taking into account discount or abatement, if any;
 - rate of tax as well as amount of tax; (central tax, State tax, integrated tax, Union territory tax or cess)
 - place of supply along with the name of State, in case of a supply in the course of inter-State trade or commerce;
 - address of delivery where the same is different from the place of supply;
 - whether the tax is payable on reverse charge basis; and
 - Signature or digital signature of the supplier or his authorized representative
- (c) You have to ensure proper uploading in your return so that BCCL may be able to avail Input Tax Credit.
- (d) You have to ensure that if BCCL does not be able to avail Input Credit due to your fault then the loss amount shall be recovered from your bill.
- (e) The benefit of any extra input tax credit earned by you, if any, in future shall be passed on to BCCL.
- (f) E-Way bill, if required, shall be arranged by you

HSN codes and GST rates of the items covered in the above supply order placed will be as under:

Sl no.	Item	HSN code	GST rate
1	40T Crane	8426	18 % (IGST).

Your GST details are as under:

SN	Particulars	Firm's Details
1	Name	M/s TIL Ltd
2	Constitution of Business	Limited Company
3	Trade Type (Manufacturer/Dealer/Service Provider)	Manufacturer
4	PAN	AABCT0704G
5	Contact number	7725935942
6	Whether migrated to GST (Yes/No)	Yes
7	Provisional/Permanent ID provided under GST	19AABCT0704G1ZO

3. **DELIVERY –**

Commencing within **3 months** from the date of receipt of purchase orders and supply to be completed within **6 months** from the date of receipt of purchase orders and Erection & Commissioning **within 07 (seven) days** from the date of receipt of complete equipment at site. The delivery schedule shall be reckoned from the **10th day** of the order. Normally extension of delivery period will not be granted. However, in case 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, the successful tenderers must obtain extension of delivery period, with or without liquidated damage, before dispatch/supply of the ordered goods. Supplies made without obtaining extension of delivery period shall be liable for non-acceptance at the stores.

4. PAYMENT TERMS:

For all indigenous supplies and in case of imported stores, where the supplier is to arrange importation and paying customs duties etc, the bidders shall confirm their acceptance to the following payment terms:

(a) 80%value of each equipment and the accessories and 100% GST along with 100% transportation & Insurance charges will be paid within 21 days after delivery and acceptance of materials at site at the consignee's end and submission & acceptance of Performance Bank Guarantee. The equipment should be accompanied with relevant dispatch documents like Challan, Maker's Test Cum Inspection Certificate Warranty Certificate, Pre dispatch inspection certificate wherever applicable etc.

(b) Balance 20% payment shall be made within 21 days of successful completion of erection testing, commissioning and final acceptance of the equipment(along with accessories) at site upon presentation of a certificate from the project Officer the effect that the equipment has been erected and commissioned to their entire satisfaction.

All payments (in Indian Rupees) will be made by concerned Paying authority of BCCL only through "Electronic Fund Transfer "(EFT) or e-payment. Bidder must indicate Banker Details i.e. Bank Name, Address, Branch Code, and Account No. & EFT No. in their offer in Commercial Bid/ bills(s).

5. PERFORMANCE BANK GUARANTEE:

You shall furnish a **Performance Bank Guarantee (PBG)** on schedule/Nationalized Bank in India for 10% value of the order (order value means FOR destination price including taxes, duties, transportation & insurance charges & other charges if any) i.e. for Rs. 16,40,837.00 (**Rs. Sixteen Lac Forty Thousand Eight Hundred and Thirty Seven Only**) shall have to be submitted to MM Division, BCCL, Koyla Bhawan on or before commencement of supply, towards the successful performance guarantee of the equipment as per the relevant clause indicated in Annexure-G of the order .The performance Bank Guarantee shall be valid for **30** months from the date of receipt and acceptance of the equipment. The Performance Bank Guarantee shall be issued by a scheduled bank in the format attached as ANNEXURE-G and shall be irrevocable and unconditional and BCCL shall have the powers to invoke/en-cash it notwithstanding any dispute or difference between supplier and BCCL pending before the court, tribunal, arbitrator or any other authority. The Bank guarantee issued by the Bank on behalf of the supplier in favor of "Bharat Coking Coal Limited" shall be in paper form as well as issued under "Structural Financial Messaging System". The detail of beneficiary for issue of BG under SFMS platform is furnished below:

Name of beneficiary & its details	Name	Bharat Coking Coal Limited
	Area	HQ,BCCL
	Bank Account no.	35160317947
	Deptt.	MM Department
Beneficiary Bank, Branch & Address	State Bank of India	
	Main Branch Dhanbad	
IFSC code	SBIN0000066	

Or

Name of beneficiary & its details	Name	Bharat Coking Coal Limited
	Area	HQ,BCCL
	Bank Account no.	019605001057
	Deptt.	MM Department
Beneficiary Bank, Branch & Address	ICICI Bank	
	ICICI Bank, Dhanbad	
IFSC code	ICIC0000196	

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

The original Bank Guarantee issued by the issuing Bank shall be sent by the issuing Bank to the beneficiary (MM Department), BCCL by Registered Post (A.D.).

6. SECURITY MONEY

You shall deposit security money 10% of the value of the contract (including Taxes, duties, and other charges to the FOR Destination prices in case of orders in INR and in case of IMPORT Order by adding the estimated amount of freight, Insurance, Port Insurance and Custom Duties etc. as applicable) i.e. for Rs. 16,40,837.00 (**Rs. Sixteen Lac Forty Thousand Eight Hundred and Thirty Seven Only**) without having any ceiling in the form of Bank Draft /Bank Guarantee (As per format given in ANNEXURE-F) within 15 days from the date of order. The validity of B.G.

will be for a period of three months beyond the expiry of delivery period. If the successful tenderer fails to deposit the security deposit within 15(fifteen) days from the date of order, the same shall be recorded as unsatisfactory performance for future dealings apart from taking any other penal action as may be deemed fit by BCCL. For successful tenderers, the Security Money shall be refunded within 30 days of satisfactory execution of contract. For unsatisfactory execution of contract and/or failure of execution of contract, the security money shall be forfeited. For orders with Performance Bank Guarantee Clause, the Security Deposit shall be refunded after successful completion of the supply/commissioning (wherever applicable) and against receipt of the acceptable performance Bank Guarantee.

The Bank guarantee issued by the Bank on behalf of the supplier in favor of "Bharat Coking Coal Limited" shall be in paper form as well as issued under "Structural Financial Messaging System". The detail of beneficiary for issue of BG under SFMS platform is furnished below:

Name of beneficiary & its details	Name	Bharat Coking Coal Limited
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Name of beneficiary & its details	Name	Bharat Coking Coal Limited
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	Deptt.	MM Department
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	ICICI Bank, Dhanbad	
IFSC code	ICIC0000196	

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

The original Bank Guarantee issued by the issuing Bank shall be sent by the issuing Bank to the beneficiary (MM Department), BCCL by Registered Post (A.D.).

7. ERECTION AND COMMISSIONING CHARGE: NIL. The supplier shall be responsible for the erection and commissioning within the period specified in the Delivery Clause of the purchase order. However, the purchaser will assist in providing necessary erection tools & tackles etc. for this purpose. If the supplier fails to commission the equipment within the specified period as incorporated in the Purchase order Liquidated damages will be recovered @ 0.5% of the delivered/landed price of the equipment along with accessories per week or part thereof for the delayed period subject to a maximum of 10% of the delivered/landed price of equipment along with accessories. Wherever felt necessary, the limit of 10% can be increased to 15% at the discretion of Head of the Materials management Division of BCCL.

In case there is delay in erection & commissioning on account of BCCL, the period of delay (on account of BCCL) shall not be counted for levy of liquidated damages.

8. CONSIGNEE -: Depot Officer, Barora Area, BCCL.

9. PAYING AUTHORITY- HOM (F) MM, Koyla Bhawan, BCCL.

10. E-Way Bill: E-Way Bill, if required, for dispatch of equipment shall be arranged by you at your end.

11. Inspection and Tests:

i) The purchaser or its authorized representative shall have the right to inspect and/or to test the goods to confirm their conformity to the contract. The purchaser shall notify the supplier in writing of the identity of any representative retained for these purposes.

ii) The inspections and tests may be conducted on the premises of the supplier or its sub- contractors), at point of delivery and/or at the goods final destination when conducted on the premises of the supplier or its subcontractor(s), all

reasonable facilities and assistance, including access to drawings and production date, 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 or make all alternatives necessary to meet specification requirements free of cost to the Purchaser.

iv) The Purchaser's right to inspect, test and, where necessary, reject the goods after the Goods arrival in the Purchaser's country 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 Goods shipment from the country of origin.

v) Materials are subject to inspection by the purchaser before dispatch. The materials may also be subject to stage inspection by a third party nominated by BCCL for the purpose. Final inspection shall, however, be carried out at the consignee's end.

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

vii) The purchaser shall, at its discretion, have the right to test the ordered material in a Government Test House or in a test house nominated by the purchaser. In case of failure of the material after testing, the cost of tests as well as of the material shall have to be borne by the supplier.

12. PRICE FALL CLAUSE:

The BIDDER undertakes that it has not supplied /is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the BIDDER to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the BUYER, if the contract has already been concluded.

13. LIQUIDATED DAMAGES CLAUSE:

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

a) To recover from supplier liquidated damages, a sum of 0.5 % (half percent) of the price of any stores which supplier 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). Wherever felt necessary, the limit of 10% can be increased to 15% at the discretion of Head of the Materials management Division of BCCL.

b) or to purchase elsewhere, after due notice to supplier on the account and at the risk of the defaulting supplier the stores not supplied or others of similar description without canceling 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 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 fully or partly.

f) Whenever, under this contract, a sum of money is recoverable from and payable by the supplier, BCCL 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 you in this or any contract should this sum be not sufficient to cover the full amount recoverable, you shall pay BCCL on demand the remaining balance. Supplier shall not be entitled to any gain on any such purchase.

g) CGST, SGST or IGST will be levied as applicable as per the provision of GST Act and Rule thereon.

h) Supplier will issue credit note as per the provision of Rule 53 of CGST Rule, 2017 on quality deduction or liquidity damage, if any arises

14. FORCE MAJEURE CLAUSE:

If the execution of the contract/supply order is delayed beyond the period stipulated in the contract/supply order as a result of outbreak of hostilities, declaration of an embargo or blockage or fire, flood, acts of nature or any other contingency beyond the supplier's control due to act of God, then the BCCL may allow such additional time by extending the delivery period as he considers to be justified by the circumstances of the case and its decision in this regard shall be final. If and when additional time is granted by the purchaser, the contract/supply order shall be read and understood as if it had contained from its inception the delivery date as extended. Power failure will not be considered as a force majeure conditions.

(a) The successful bidder will advise, in the event of his having to resort to this clause, by a registered letter, duly certified by the local chamber of commerce, or statutory authorities, the beginning and end of the causes of the delay,

within 15 days of the occurrence and cession of such force majeure conditions. In the event of delay last out of force majeure, BCCL will reserve the right to cancel the contract, and provisions governing termination of contract as stated in the bid documents will apply.

(b) For delay arising out of Force majeure, the bidder will not claim any extension in completion date for a period exceeding the period of delay attributable to the causes of force majeure and neither BCCL nor the bidder shall be liable to pay extra cost provided it is mutually established that the force majeure conditions did actually exist.

15. SUBMISSION OF BILLS:

Pre-receipted stamped original bill for 100% value in six copies along with delivery challan in original quoting number and date of L/R or consignment notes, Guarantee / Warranty certificate and other relevant documents as indicated elsewhere in the order should be submitted to the Paying Authority through Consignee only.

16. GUARANTEE/WARRANTY: The supply shall be covered by the maker's standard guarantee as follows and special guarantee as given in Annexure-A:

The supplier shall warrant that the equipment supplied under the contract / supply order:

- a) is new, unused and of current design not likely to be discontinued or become obsolete till the life of the offered equipment.
- b) is in accordance with the contract specifications.
- c) Shall have no defects arising out of design, materials or workmanship.

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

A) In accordance with the contract specifications.

B) The equipment will be warranted against any manufacturing defects/workmanship for a period of 12 months from the date of commissioning or 18 months from the date of receipt and acceptance. Any defect observed on this account shall be attended to immediately and in no case beyond a period of one month.

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

In the event of any defects in materials, design and workmanship during the aforesaid period is found due to faulty design or poor workmanship, the defective part or parts will be replaced by the supplier at site free of cost within 14 days of settlement of warranty claims. The bidder will be required to stock spare parts to take care of warranty failures. Spares should be available within 2 weeks of the breakdown being intimated to them. The guarantee/composite warranty shall be submitted along with the bill. The warranty shall cover for the total equipment so that the necessity of having to approach different manufacturers of various components/assemblies does not arise and all services under warranty clause shall be the responsibility of the ultimate supplier of the composite equipment. You will also replace the defective parts, if any, during the warranty period free of cost. The responsibility to collect the defective / rejected material will lie with the supplier and the cost for such collection will have to be borne by the supplier.

17. PERFORMANCE GUARANTEE CLAUSE: You shall guarantee that the availability of the equipment shall not be less than 85% (Eighty-Five percent) for a period of 12 months from the accepted date of commissioning. In the event that the Equipment fails to achieve the Availability herein provided during this twelve (12) month period, the Supplier shall be liable to pay to the Purchaser, as Penalty as per clause C.7.3 of Annexure -A

18. RISK PURCHASE:

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, Coal India Ltd., or its subsidiary Companies 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. It is clearly mentioned that in the event of failure of the supplier as detailed above, the cost as per risk purchase exercise may be recovered from the bills against any other supplies pending in the same Subsidiary Co. and also in any other Subsidiary Companies / Coal India Limited.

19. INTEGRITY PACT: The Integrity Pact document has been signed by you and the same is deemed to have been signed by BCCL Authorities.

20. GENERAL TERMS AND CONDITIONS: Unless otherwise specified in the purchase order, the purchase order shall be subject to General Terms and Conditions of Supply of Stores given as Annexure -K. In case there is a conflict in any particular term of the NIT with the General Terms, the terms of the NIT will prevail.

21. JURISDICTION

ALL DISPUTES ARE SUBJECT TO DHANBAD COURT AND JHARKHAND HIGH COURT JURISDICTION ONLY.


ALL OTHER TERMS & CONDITIONS AND TECHNICAL SPECIFICATIONS ALONG WITH SCOPE OF SUPPLY WILL STRICTLY BE AS PER OUR NIT.

This contract is concluded with the issuance of this order, we are enclosing 2 copies of the Purchase order, one of which should be returned to us duly stamped and signed. This issues with the approval of the competent Authority.

Encl:

SL	ANNEXURE	DESCRIPTION
1	ANNEXURE - A	TECHNICAL SPECIFICATIONS
2	ANNEXURE - B	LIST OF MAJOR BOUGHT OUT ITEMS
3	ANNEXURE - C	LIST OF SPARES FOR 3000 HOURS OPERATION
4	ANNEXURE - D	LIST OF STANDARD TOOLS AND SPECIAL TOOLS
5	ANNEXURE - E	DETAILS OF NEAREST DEPOT /WAREHOUSE AND SERVICE FACILITY
6	ANNEXURE - F	FORMAT OF BANK GUARANTEE FOR SECURITY DEPOSIT
7	ANNEXURE - G	PRO-FORMA OF PERFORMANCE BANK GUARANTEE
8	ANNEXURE - K	GENERAL TERMS AND CONDITIONS OF SUPPLY OF STORES
9	ANNEXURE - A4	E-PAYMENT MANDATE.

Yours faithfully,
For & on behalf of Bharat Coking Coal Ltd.


(S PANDEY)
AM (MM)


(N S Saini)
General Manager (MM)

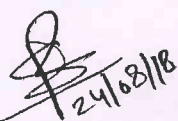
INDENT AND BUDGET REFERENCE:

Indent reference	Budget Certification no. & dt., & FC No.& dt.
GM (X)/BA/14-15/08 dated 06.12.2015 IR No of MM Divn 615214 Dtd 07.12.15 For Barora Area of BCCL	BCCL/C&B/CAP/Reg. PN-217/SN-193/eBC no 171 dated 26.06.18 (Cap 18-19) for Rs 164,08,369.00 eFc no. 271 Dtd 22.08.2018 for Rs. 164,08,369.00

Copy to:

1. GM (Excvn)/HOD Koyla Bhawan, Koyla Nagar, Dhanbad
2. HOD (Fin) MM, Koyla Bhawan, Koyla Nagar, Dhanbad
3. GM (MM) , CCL, ECL, SECL, NCL, MCL, WCL
4. GM (Area), Barora Area
5. The Depot Officer, RS Barora Area, BCCL, Dhanbad
6. AM (Tech Cell) , Koyla Bhawan, Koyla Nagar, Dhanbad
7. The Independent External Monitor for Integrity Pact
Prof (Dr) L.C.Singhi, IAS(Retd)
L-31, Third Floor Kailash Colony, New Delhi – 110048
Shri Pramod Deepak Sudhakar
A-002, Stellar Park Apartments, C-58/42, Sector-62, Noida (UP)-201301

This issues with the concurrence and approval of competent authority.


AM (MM)


General Manager (MM)

ANNEXURE A

V- Schedule of Requirements

Part I

S.No	Brief Description of Goods & Services	Quantity	Expected Delivery Schedule at Site
1	40T Crane	01 No	Commencing within 3 months from the date of receipt of purchase orders and supply to be completed within 6 months from the date of receipt of purchase orders.
2	Ancillary Equipment and other requirements for each of Item no.1 as specified in Technical Specifications.	In accordance with item 1	Delivery to be made with crane.



The quantities of equipment against which this procurement is being made are as follows:

Sl No.	Project with Consignee Address	Company	Total Requirement	
			Under NCD	Under PCD
1	Barora Area	BCCL	01 No	Nil

Part II

Sl. No	Brief Description of Services	Period/Quantum
1	Training of Purchaser's Personnel at the manufacturer's works or elsewhere outside India.	Please refer to Schedule of Requirements of Services later in this Section and to the Technical Specifications.
2	Training of Purchaser's Personnel on Site.	Please refer to Schedule of Requirements of Services later in this Section and to the Technical Specifications.
3	Assembly and erection of equipment at Site in accordance with the Technical Specification and Conditions of Contract.	To be specified by the Bidder to comply with the Technical Specifications and the terms and Conditions of Contract.




Schedule of Requirements of Services

The Supplier's scope of the Contract will include the following

- I. Type test on each equipment included in the technical specification and offered in the bid.
- II. Providing Services of Supplier's qualified engineer(s)/personnel for:
 - A. unloading, transportation to site, storage at site and/or
 - B. Transportation from storage to erection site, installation, testing and commissioning.
- III. Training of Purchaser's Personnel:

The Purchaser's estimates of the minimum training requirements (in terms of Purchaser's personnel, periods and locations) are given in the following table. These estimates relate to the total number of items of equipment specified in Part I

Type of Personnel	At Manufacturer's Works			At Site		
	No	Period	Total	No	Period	Total
Mech Engineer		1 week	1 weeks	1	1 Week	1 Week
Elec Engineer		1 week	1 weeks	1	1 Week	1 Week
Mech Supervisor		1 week	1 weeks	1	1 Week	1 Week
Elec Supervisor		1 week	1 weeks	1	1 Week	1 Week
Mech Fitter				1	1 Week	1 Week
Electrician				1	1 Week	1 Week
Operator				1	1 Week	1 Week
Total			weeks			weeks

Definitions:

- Mech/Elect Engineer - Graduate Engineer having basic knowledge of the equipment
- Elect/Mech Supervisor - Diploma Holder Engineer having basic knowledge of the equipment
- Mech Fitters/Electricians/Operators - Un-skilled, semi-skilled and skilled.




Technical Specifications

Introduction

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

The Technical Specifications are presented in four parts as follows:

- A. Scope of Supply
- B. Specific Project Requirements
- C. General Requirements
 - 1) Geography and Climatic Conditions
 - 2) Goods (Equipment and Machinery)
 - 3) Services
 - 4) Standards
 - 5) Supplier's Responsibility
 - 6) Spare Parts Provisions
 - 7) Availability Provisions
 - 8) Deemed Breakdown
 - 9) Composite Warranty / Guarantee
 - 10) Special Conditions
 - 11) Quality Assurance
- E. Equipment Specifications



A. Scope of Supply

A.1 Equipment Package

The Supplier is required to provide a complete package of equipment for the supply of 40T Crane to open cast (surface) coal mining projects:

The supplier is required to bid for the Equipment; including accessories, consumables, training, installation, commissioning and testing at the coal mining project.

A.2 Supplementary Items

I. First fill of all oils, grease and lubricants needed for test and commissioning of equipment.

II. 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.

III. All filters & O rings (including engine filters) required for first 3000 working hours. List of such spares justifying the total requirement as per maintenance schedule should be submitted

A.3 Information and Drawings

At least one month before the scheduled installation date, the Supplier shall provide not less than:

(a) Suitably illustrated copies of Operating, Repair and Maintenance Manuals for each type/model of equipment and accessories, written in the English language, substantially bound in book form;

Three (3) copies to each project site; and

One (1) copy along with soft copy to the General Manager (Excv.), BCCL HQ. Koyla Bhawan;

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

Three (3) copies to each project site; and

One (1) copy along with soft copy to the General Manager (Excv.), BCCL Hqrs. Koyla Bhawan;

The Supplier shall also submit (in the same number of copies) the data identified in the specifications for each item of Equipment proposed. In addition to the Equipment drawings requested, where appropriate the Supplier 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

The Supplier shall provide the Services of Specialist Technicians (refer Part-C3) and labour to undertake 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

The supplier in consultation with the project in-charge / HOD [Excavation] of the respective site shall make available experienced personnel to conduct training of engineers, supervisors, technicians and operation personnel for suitable period from the date of issue of acceptance certificate of the equipment. The training shall cover the following:

a) Equipment system, safety and risk assessment

- b) Equipment operation and maintenance
- c) Trouble shooting, localization of fault and their remedies covering:
 - 1. Electrical and electronics
 - 2. Mechanical
 - 3. Hydraulic system
 - 4. Lubrication system
 - 5. Pneumatic system 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 language.

B. Specific Site Requirements

B.1 Project Specific Requirements

The equipment shall be suitable for use at the specific site projects under the conditions detailed below.

B.1.1 Opencast Projects

All the Opencast Project is owned by the Bharat Coking Coal Limited, a wholly owned subsidiary of Coal India Limited (the "Purchaser"). The mine is located partly in the Dhanbad District of Jharkhand approximately 30 Km from Dhanbad railway station.

Part C.

General Requirements

C.1 Geography and Climatic Conditions

Elevation:-

The natural surface varies from 100 to 1000 m 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 1,000mm, 90 to 95 % of which may fall in rainy season from June to October.

Wind:- April to September - South to South Westerly
 October to March - North Westerly
 Speed:- - 8 km per hr average
 - 100 km per hr maximum

C.2 Goods (Equipment and Machinery)

Detailed specifications of the Equipment to be supplied are given in **Part E** of this section.

In general, all items shall be:

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

Electrical Equipment 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 environment, 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 Standards

The design supply, erection, testing and commissioning of all Equipment under this Contract shall in all respects comply with the requirement of this specification and with the appropriate current Indian standards and codes, or relevant Standards issued by the International Standards Organisation or any other equivalent international standards, which corresponds 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 be to the 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'e International d'Unites (S.I.)**

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 Equipment for it to function effectively, safely and efficiently. Any additional items the Supplier considers necessary to ensure compliance with such a requirement shall be identified and included.

If the Supplier observes that this Specification document 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 Equipment and ensure that it meets the requirements as specified. The commissioning and setting to work of the whole Equipment Supply package shall be carried out under the supervision of the Supplier in conjunction with the Purchaser's nominated personnel

C.6 Spare Parts Provisions

C.6.1.a. Availability of Spare 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 bought-out items as indicated in the technical specification against "Information to be provided by the bidder". The bidder has to furnish a certificate indicating therein that "All other components not identified/ mentioned herein are manufactured by the bidder at their works exclusively i.e. the components are propriety of bidder's firm."

C.6.2 Provision of Spare Parts

C.6.2.1 Within the Contract Price, the Purchaser shall agree to purchase all filters and O rings including standard engine filters required for first 3000 hours of operation of each equipment. The Bidder shall stock sufficient fast moving & maintenance and other spares in their Local Depots to ensure maximum availability of their equipment

C.6.3. Emergency Spare Parts

The Bidder shall ensure that Spare Parts required urgently by the Purchaser for repair of breakdown equipment are supplied at overriding priority.

C.6.3.1 Lifetime Spare Parts

The Supplier undertakes and guarantees to produce and maintain stocks, to be available for purchase by the Purchaser under separate agreement, 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 its 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 number or superseded part number should be informed to the HOD of Excavation department / MM department of BCCL 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 (10) years from the date of completion of warranty period

C.6.4 Oils, Lubricants and Fluids

Not less than three (3) months before the scheduled date for Acceptance, the Supplier shall provide to the Purchaser a detailed schedule of all necessary oils, lubricants, fluids for the operation and maintenance of Equipment. The schedule shall indicate estimated annual consumption and specify the appropriate international standard number or the name and reference number of an 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 this Contract.

C 7 Availability Provisions /Performance Guarantee

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.

C7.1.2 Where Equipment supplied under the Contract fails to meet the criteria of the Availability Guarantee, the Supplier shall, at its own 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 personnel at Site within seven (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:

$$\% \text{ Availability} = \frac{\text{Scheduled Available Time} - \text{Downtime}}{\text{Scheduled Available Time}} \times 100$$

Scheduled Available Time shall equate to 24 hours daily.

Downtime:-

Downtime 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 preventative 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.

Downtime 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 three years 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 the assessment of the availability.

This 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:

1. Providing normal and proper maintenance, including preventative maintenance in accordance with the Supplier's standard/published recommendations, and making all necessary repairs using only spare parts provided by the Supplier in accordance with the requirements specified in part B6.
2. Providing co-operation to all Supplier's authorised 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:
 - Proper electrical Supply
 - Terrain Area
 - Bench preparation
 - Reasonable floor conditions
4. Providing all Supplier's authorised representatives access at all reasonable times to the machine service and repair facilities.

Maintaining a logbook for each shift wherein the working hours, breakdown hours, maintenance hours, idle hours, 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 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 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.

C.7.3.3 In the event that the Equipment fails to achieve the Availability herein provided during this twelve (12) month period, the Supplier 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 Guaranteed Availability for the first 5%
- b) 10% of the delivered price of the equipment for reduction beyond 5% from the Guaranteed Availability .

The Supplier 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 .

C.8 Deemed Breakdown

When the supplier is 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 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).

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 will be warranted against any manufacturing defects/workmanship for a period of 12 months from the date of commissioning or 18 months from the date of receipt and acceptance. Any defect observed on this account shall be attended to immediately and in no case beyond a period of one month.

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

C.10 Special Condition

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

C.11 Quality Assurance

C.11.1 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 of equivalent merit acceptable to BCCL.

C.11.2 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.11.3 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.

C.12 After Sales Service/Product Support

The supplier must have adequate facility for product support for such machines in India with nearest Depot/Warehouse, Service facility and Personnel. Details of such facilities are to be mentioned as at Clause 9 of Equipment Specification.



PART D: - EQUIPMENT SPECIFICATIONS.
TECHNICAL SPECIFICATION OF 40 TONNE
HYDRAULIC ROUGH TERRAIN MOBILE CRANE

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 diesel powered 40 tonne hydraulic rough terrain mobile crane.

2. References

The following International Standards are referred to in, and form part of, the Specification. The equivalent standards, if any, to any of the following ISO standards if offered are to be supported by documentary evidence in form of copies of the equivalent standards certifying that offered standards are identical to the corresponding ISO standards of NIT.

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

- ISO 4305 Mobile cranes - Determination of stability
- ISO 7363 Cranes and lifting appliances - Technical characteristics and acceptance documents
- ISO 7752-1 Lifting appliances - Controls - Layout and characteristics - Part 1: General principles
- ISO 7752-2 Lifting appliances - Controls - Layout and characteristics - Part 2: Basic arrangement and requirements for mobile cranes
- ISO 8087 Mobile cranes - Drum and sheave sizes
- ISO 4573-1982 – Specification for power drive mobile crane
- Any other ISO specifications as may be applicable

3. Design Criteria

The crane shall be designed for heavy duty application and be capable of operating for protracted periods on a system of 3 shifts each of 8 hours duration per day throughout the year.

The crane should have a lifting capacity, with fully extended outriggers, of not less than 40 tonne at a radius of 3 m and a basic boom length of not less than 9.0 m. The fully extended boom length should be not less than 24.5m.

The lifting capacity shall be in accordance with American Standard CS 90-58 and should not exceed 85% of the tipping load in accordance with ISO 4305.

The crane should be capable of 360-degree rotation with all rated loads.

The crane should be capable of lowering the rated loads a minimum of 4m below ground level and should have adequate pick up and carry capacity of not less than 5MT at 9m radius over the front. The crane shall have a gradeability of not less than 40%. Ground clearance shall not be less than 430mm(from differential).

4. Technical Requirements

4.1. Engine

The crane shall be powered by a direct injection 4-stroke diesel engine of adequate power. The engine shall be provided with 24V electric starting, dry type 2- stage air-cleaner with 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 crane 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. The engine shall be environment certified for minimum BS-II or its equivalent.

4.2. Transmission

The crane shall be provided with power shift hydraulic transmission having a sufficient number of speeds to enable it to travel in rugged mining conditions. Suitable protection of the transmission pan from external damage should be provided. The pan guard should be designed to minimize accumulation of dirt and debris.

4.3. Drive System

4 x 4 wheel drive-steer with differential and planetary reduction hubs shall be provided.

4.4. Steering

Full hydraulic power steering shall be provided, which should have the capability of normalizing steering control when the machine is slewed to the rear of the chassis. Provision for normalization of steering should be present when superstructure is slewed to the rear.

4.5. Hoses

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

4.6. Brakes

Suitable & reliable air/ air over oil/ oil assisted foot operated service brakes acting on all wheels shall be provided.

Parking and emergency brakes for locking the wheels during operation of the crane should also be provided.

4.7. Tyres

Suitable tubeless, rock duty, cut-resistant earthmover tyres shall be provided, preferably selected from the ranges of Indian manufacturers.

4.8. Frame

The frame should be a rugged, durable construction of high strength steel, free from any stress concentration, with integral outrigger housings. The design must take care of all forces encountered during the operation of the crane.

4.9. Outriggers

An adequate number of hydraulically operated outriggers with integral check valves on each extension cylinder shall be provided. The outriggers shall be controlled from the operators cab.

4.10. Boom

The boom shall be provided with full power synchronized hydraulic telescoping sections.

4.11. Lifting Block

A hook block suitable for the maximum designed lifting capacity of the crane shall be provided.

4.12. Hoist System

A multiple speed hoist system shall be provided with a counter-balance valve for controlled load lowering.

Limit switches for over hoist and over lowering and an adequate capacity fail-safe braking system shall be provided.

4.13. Safe Load Indicator

The crane shall be fitted with an electronic safe load indicator to indicate the hook load and provide audio-visual warning of overload. Digital indication of net/gross load, boom inclination, boom length and radius shall also be provided.

4.14. Derricking and Slewing

High-speed derricking and slewing motions with sensitive fail-safe controls and brakes shall be provided.

Full 360° continuous rotations shall be provided.

4.15. Drums and sheaves

The diameters of the drums and sheaves used for hoisting and derricking shall be in accordance with ISO 8087.

4.16. Fuel Tank

The fuel tank shall be of sufficient capacity to allow 16 hours operation without re-fuelling and be provided with a level indicator and a lockable-hinged filler cap.

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

4.17. Operator's Cab

A fully insulated, sound suppressed Air conditioned lockable operator's cab with tinted safety glass should have adequate window area to provide full vision in all directions. A rear-view mirror, windshield wipers and washers, a fully adjustable operator's seat, floor mat and a cooling fan shall be provided.

All operating controls, gauges (with colour indication for safe and unsafe working), monitoring and working signals shall be conveniently located within easy reach of the operator and comply with ISO 7752-1 and ISO 7752-2.

Steps and handrails shall be provided for access to the operator's cab.

4.18. Warning Alarms/Lights


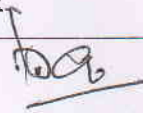
Audio/visual warning alarm systems shall be provided for the following:

- a) Parking brake actuation.
- b) High torque converter oil temperature.
- c) Low engine oil pressure.
- d) High coolant temperature.
- e) Low air pressure (if applicable).
- f) Hoist drum rotation indicator.
- g) Low coolant level.

4.19 Gauges and Indicators: The following shall be provided as a minimum:

- a) Water temperature
- b) Engine oil pressure
- c) Converter oil temperature
- d) Fuel capacity
- e) Engine tachometer
- f) Engine hour-meter

In case any of these gauge/s is/are not provided then it may be adequately explained that how the job of the same shall be accomplished in the offer product.

4.20. Electrical Equipment: The crane shall be provided with the following:

- a) 24V DC electrical system with suitably rated alternator of reputable make
- b) Electric start
- c) Reputable make high capacity batteries
- d) Battery isolation switch

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 each size/ratings shall be provided in each fuse box.

4.21. Lighting

Adequate lighting shall be provided for safe nightshift operation. The lighting system should include the following:

- a) Headlights
- b) Brake, tail and parking lights
- c) Front and rear turn indicators
- d) Hazard warning lights
- e) Working lights

4.22. Guards and Shields

Adequate guards and shields shall be provided on the crane.

4.23. Fire Extinguisher

02 nos. Of DGMS approved fire extinguisher shall be provided on the crane, suitably mounted in a heavy duty bracket for ease of removal. The extinguisher shall be dry powder (cartridge type) with a minimum capacity of 5 kg and shall comply with Indian Standard IS : 2171.

5. Ancillary Equipment And Other Requirements

The following shall be provided on the crane:

- a) Front and rear tow hooks and two lifting loops
- b) Tyre inflation kit

6. Special Guarantee: The following guarantee will apply for the different components from the accepted date of commissioning

i) Complete engine system - 24 months or 6000 hours (whichever is earlier) In case of failure of engine system within 5000 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.

(ii) Transmission Assy. - 24 months or 6000 hrs. (Whichever is earlier).

iii) Body Chasis:- 10,000Whrs or 36 months from the date of commissioning (whichever is earlier).

iv) Hydraulic Pumps/Motors & Cylinders:- 24 months or 6000 W/hrs from the date of commissioning (whichever is earlier).

v) Batteries:- 24 months.

In case of any guarantee failure intimated reasonably in time to the bidder, 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.

7. Performance Guarantee

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 the equipment shall be not less than **85% (eighty five per cent)** for a period of 12 months from the accepted date of commissioning.

8. Information to be provided by the Supplier:

The Supplier shall furnish the following information which will be used for the assessment of bids and as guaranteed technical particulars in any subsequent contract. All technical information shall be in SI units.

8.1. General

a. Number of similar model supplied during the last five years. The information shall be given in the following format and in the order of most recent first:

Company Name	Mine Name	Mine Location	Mine type	Number of Machines	Model	Commissioned date

b. Details of nearest existing Depot, Warehouse and Service Facility available with manufacturer or their exclusively authorized dealer & after sales service provider for the present offer, in the format given below:

Major Depot Warehouse			Service Facility		
Location	Contact Numbers	Inventory value (Approx.)	Location	Type of facility available	Number of Engineers*

* Engineers/ Technicians employed to service the equipment either at the facility or on-site.

- c. Details of special tools to be provided with the equipment.
- d. Details of erection programmes for the bid.

8.2. Technical Details

- a) Technical characteristics and acceptance documents in accordance with ISO 7363.
- b) Lifting capacity range diagrams and tables.
- c) Detailed technical descriptions of the crane.
- d) Layout drawings & detail technical descriptions of hydraulic systems & components.
- e) Details of major bought-out assemblies & sub-assemblies including manufacturer, type, etc.
- f) Comprehensive commercial literature specifications.
- g) Operation and maintenance manuals.

8.3. Dimensions, Weights and Performance Details

8.3.1. Dimensions

- a) Maximum overall length
- b) Maximum overall width
- c) Maximum overall height

- d) Tail radius
- e) Wheelbase
- f) Ground clearance

8.3.2. Weight Distribution

- a) Front axle
- b) Rear axle
- c) Total

8.3.3. Lifting capacity

- a) At 3 m radius

- b) At 4 m radius
- c) 360° clear outreach:
 - at 0 m
 - at 1 m
 - at 1.5 m
- d) On wheels:
 - at 3 m radius
 - at 4 m radius
 - at 5 m radius
- e) On wheel clear outreach:
 - at 0 m
 - at 1 m
 - at 1.5 m
- f) Pick and carry capacity at 5 km/h:
 - at 3 m radius
 - at 4 m radius
 - at 5 m radius
- g) Lift of rated load at minimum radius in meters :
 - Below ground level
 - Above ground level

8.3.4. Operating speeds

- a) Hoist
- b) Slewing RPM
- c) Derricking
- d) Travelling

8.3.5. Engine

- a) Manufacturer and model
- b) Number of cylinders
- c) Bore
- d) Stroke
- e) Displacement
- f) Net power at.....r/min
- g) Maximum torque

8.3.6. Transmission

- a) Type
- b) Number of gear speeds - forward and reverse
- c) Travel speeds - forward and reverse

8.3.7. Final Drive

- a) Type
- b) Ratio

8.3.8. Steering

- a) Type
- b) Emergency steer method
- c) Turning circle:
 - All wheel steer
 - Front wheel steer
- d) Clearance circle:
 - All wheel steer
 - Front wheel steer

8.3.9. Brakes



- 8.3.9.1. Service brakes
 - a) Type
 - b) Actuating system
- 8.3.9.2. Parking brake
 - a) Type
 - b) Actuating system
- 8.3.9.3. Emergency brakes
 - a) Type
 - b) Actuating system
- 8.3.10. Derricking System
 - a) Derricking
 - b) Max. to Min. radius in secs.
 - c) Min. to max. radius in secs.
- 8.3.11. a) Slew System
 - b) Slewing RPM
- 8.3.12. Tyres
 - a) Make, Size and type
 - b) Tread
 - c) Ply rating
 - d) Rim size
- 8.3.13. Hydraulic System
 - a) Make, Number, flow rates and operating pressures of pumps
 - b) Make, Number, piston diameters and stroke lengths of cylinders
 - c) Relief valve operating pressures
- 8.3.14. Outriggers
 - a) Horizontal stroke
 - b) Vertical stroke
- 8.3.15 Axles
 - a) Front Axle
 - b) Rear Axle
- 8.3.16. Boom
 - a) Basic length
 - b) Fully retracted length
 - c) Intermediate position length
 - d) Fully extended length
- 8.3.17. Boom telescoping
 - a) Normal speed
 - b) Fast speed
- 8.3.18 With Derrick down
 - a) Overall length
 - b) Overall height
 - c) Overall width
- 8.3.19
 - a) Tail radius (m)
 - b) Wheel base (m)
 - c) Ground clearance (mm)
 - d) Angle of approach
 - e) Gradient (unladen and at max. rated load)
 - f) Max. travel speed
- 8.3.20. Electrical System
 - a) Starter make and model
 - b) Starter control make and model
 - c) Alternator make and model
 - d) Batteries - numbers and rating

e) Lighting details

8.3.21. Turning Circle

- a) 4 wheel steer (m)
- b) front wheel steer (m)

8.3.22. Rope

- a) Make
- b) Dimension
- c) Specification



RT 740B

Product Guide



ROUGH TERRAIN HYDRAULIC CRANE

Features

- MAX. CAPACITY (Outriggers) - 40.0 Tonnes at 3m Radius (85% Rating) 360° Slew
- MAX. CAPACITY (On Tyres) - 17.35 Tonnes at 3m Radius (85% Rating) Over Front
- BOOM - 4 SECTION Trapezoidal 10.6m - 33.5m
- MAX. ROAD SPEED - 30km/hr
- CARRIER - 4 X 4 Wheel Drive with 4 Wheel Steer

Amal Singh

Superstructure Specifications

BOOM

10.6m - 33.5m four section, telescopic, full power, sequence synchronized, trapezoidal boom with single lever control. Telescoping boom sections slide on adjustable & replaceable low friction wear pads.

BOOM NOSE

Four nylatron sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Maximum Tip Height: 35.9m

BOOM ELEVATION

One double acting hydraulic cylinder with integral holding valve.

BOOM ANGLE

Maximum: 78°, Minimum: -3°.

SUPERSTRUCTURE FRAME

Fabricated from high tensile steel plates and sections.

SLEW SYSTEM

Ball bearing swing circle with 360° continuous rotation. Planetary "Glide-Swing" with foot applied multi-disc brake. Spring applied hydraulically released parking brake, mechanical house lock operated from cab. Free slew facility provided.

SLEW SPEED

Maximum 2.0 RPM (Unladen).

HOIST SYSTEM

Power up and down equal speed, grooved drum, planetary reduction with automatic spring applied multi-disc brake. Hoist drum fitted with third wrap indicator. Non Spin Hoist Rope: 19mm dia. & length 152m. Line Speed: Top layer 105m/min (Max) Unladen. Maximum Permissible Line Pull: 5500Kg.

HOOK BLOCK

40.0 Tonnes; 4 Sheaves - 8 falls

COUNTERWEIGHT

Integral with superstructure. Weight: 3485kg.

OPERATOR'S CAB

Totally enclosed steel construction, full vision type cab with all crane functions control levers, driving controls, engine instrumentation & automotive type steering wheel. All windows fitted with toughened safety glass, lockable sliding door, cab interior light, circulating air fan, pantograph type electric wiper & electric horn.

LMI & A2B SYSTEM

Load Moment Indicator and Anti-Two Block system with audio-visual warning and control lever lock-out provides electronic display of boom angle, boom length, radius, relative load moment, maximum permissible load, load indication and warning of impending two-block condition.

HYDRAULIC SYSTEM

Pumps

Two Section Gear pump driven through engine PTO. Two Section Gear pump driven through transmission PTO.

Valves

Precision 4 way double acting pilot operated control valves. 3 Individual valve banks permit simultaneous control of multiple crane functions.

Filters

Return line filter with replaceable cartridge having full flow with by-pass protection and service indicator.

Reservoir

378 liters with spin-on breather filter, external sight gauge, oil temperature gauge, clean out access, strap mounted to frame.

Pressure Check Panel

System pressure test panel with quick release type fittings for each circuit.

OPTIONAL EQUIPMENT

Fixed Swingaway Extension

9.8m lattice Swingaway boom extension with integral offset mechanism, off settable at 0°, 15° or 30°. Stows alongside base boom section when not in use.

Maximum tip height: 45.4m

Telescopic Swingaway Extension

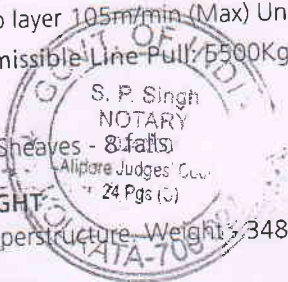
9.8m to 13.4m or 17.1m telescopic lattice swingaway extension with integral offset mechanism, off settable at 0°, 15° or 30°. Stows alongside base boom section when not in use.

Maximum tip height: 52.7m

Auxiliary Hoist

AC Cabin

Protective Super Cab



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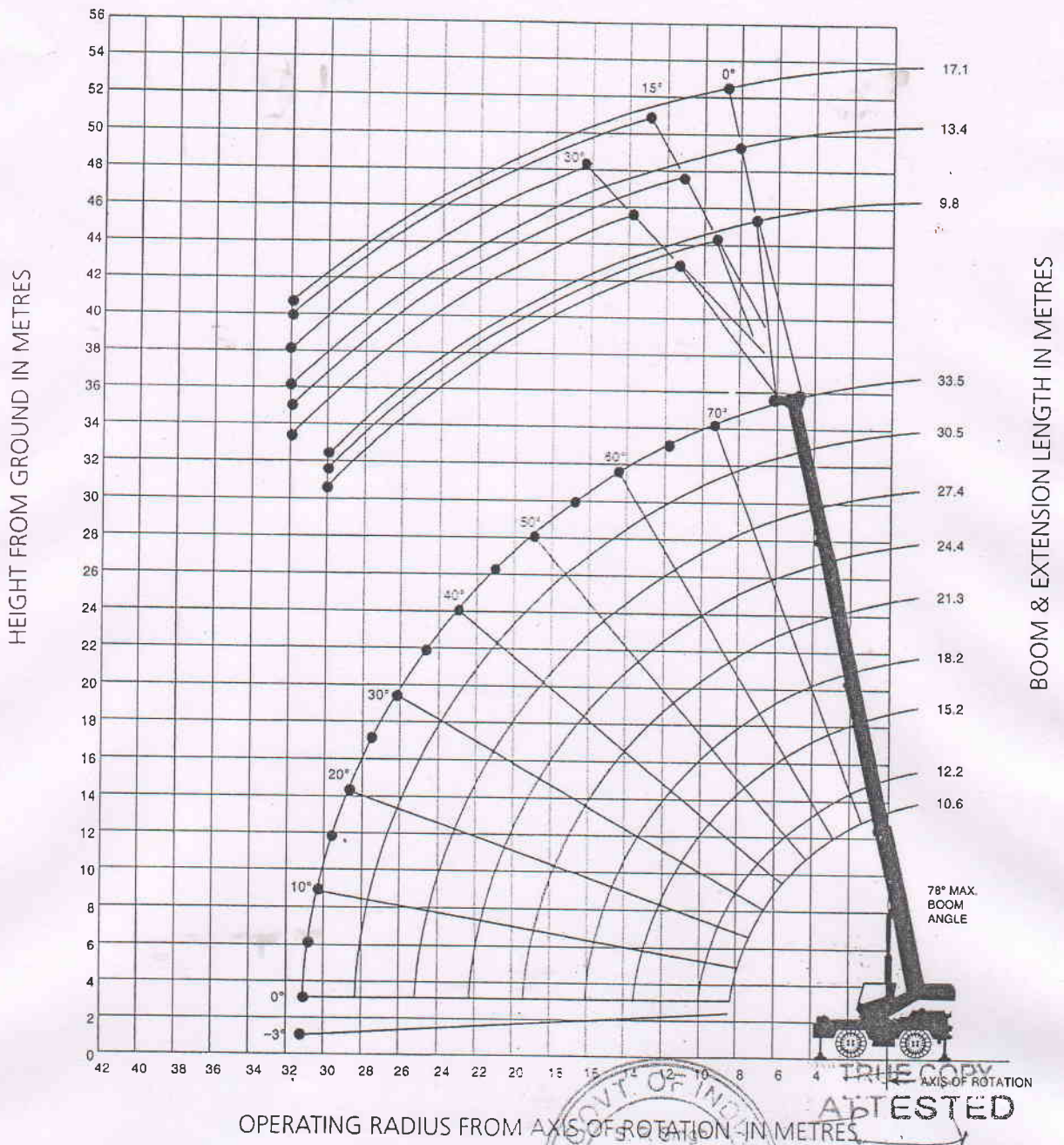
Technical Specification TIL/RT740B/1112
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Height of Lift : 10.6m - 33.5 Full Power Boom

WORKING RANGE DIAGRAM
(BOOM DEFLECTION NOT SHOWN)



NOTE:
The above heights of lift and boom angles are based on a straight (unladen) boom and allowance should be made for boom deflections obtained under laden conditions.

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Hookblock Capacities - Tonnes

No. of fall	8	7	6	5	4	3	2	1
Permissible Load	40.0	34.0	28.0	23.0	18.0	14.0	10.0	5.0

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Metric 85% Lifting Capacities (Kilograms) on Outriggers Fully Extended - 4 Section Boom

Main Boom - On Outriggers Fully Extended - 360°

Radius in Meters (m)	Main Boom Length in Meters								
	10.6	12.2	15.2	*18.2	21.3	24.4	27.4	30.5	33.5
3	40,000 (66)	30,825 (69.5)	26,350 (74)						
3.5	31,875 (63)	29,050 (67)	24,850 (72)	20,250 (76.6)					
4	28,275 (60)	27,025 (64.5)	23,975 (70)	19,750 (73.5)					
4.5	25,900 (56.5)	25,000 (61.5)	22,075 (68)	18,975 (72)	16,125 (75)	14,950 (77)			
5	23,900 (53)	23,125 (58.5)	20,325 (66)	17,900 (70.5)	15,500 (73.5)	14,300 (76)			
6	20,275 (45)	20,000 (52.5)	18,050 (61.5)	15,425 (67)	13,975 (70.5)	12,825 (73.5)	11,550 (75.5)	10,025 (77.5)	
7	17,050 (36)	16,650 (46)	16,000 (57)	13,500 (63.5)	12,375 (67.5)	11,500 (71)	10,550 (73.5)	9,630 (75.5)	8,390 (77.5)
8	14,100 (23)	14,100 (38.5)	13,800 (52)	12,025 (59.5)	10,900 (64.5)	10,375 (68.5)	9,635 (71.5)	8,960 (73.5)	8,065 (75.5)
9		12,250 (29)	11,800 (47)	10,725 (56)	9,700 (61.5)	9,390 (66)	8,865 (69)	8,085 (71.5)	7,250 (73.5)
10			10,175 (41)	9,680 (51.5)	8,710 (58.5)	8,455 (63)	8,010 (66.5)	7,285 (69.5)	6,570 (72)
12			7,480 (26)	7,465 (42.5)	7,160 (51.5)	6,950 (57.5)	6,510 (62)	6,040 (65.5)	5,530 (68)
14				5,315 (31.5)	5,670 (44)	5,720 (51.5)	5,445 (57)	5,060 (61)	4,705 (64.5)
16					4,210 (35)	4,410 (46)	4,535 (51.5)	4,255 (56.5)	4,050 (60.5)
18					3,145 (22.5)	3,370 (37.5)	3,705 (46)	3,635 (51.5)	3,435 (56)
20						2,580 (28)	2,800 (39)	3,020 (46.5)	2,945 (51.5)
22							2,095 (31.5)	2,320 (40.5)	2,505 (47)
24							1,530 (21)	1,750 (34)	1,965 (42)
26								1,285 (25.5)	1,515 (36)
28								890 (12)	1,140 (29)
30									825 (19.5)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (m) at 0 deg. boom angle (no load)									33.5

Note : () Boom angles are in degrees.

*18.2 m boom length is with inner-mid extended and outer-mid & fly retracted

Weight Reductions for Load Handling Devices. (Approx.)

9.8m Boom Extension	
*Stowed	304 kg
*Erected	1882 kg

9.8m - 17.1m Boom Extension	
*Stowed	384 kg
*Erected	2,889 kg
*Erected Extended	3,759 kg

*Reduction of main boom capacities

Hookblocks and Headache Balls	
40MT, 4 Sheave	500 kg
Auxiliary Boom Head	65 Kg
10MT Headach Ball	254 Kg

Note: MT refers to metric tonne

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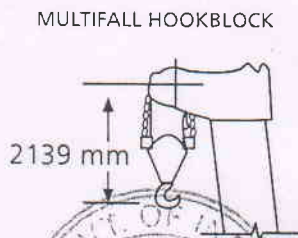
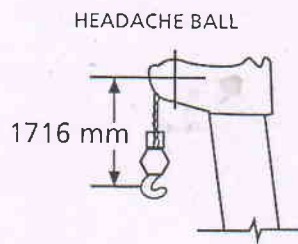
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Metric 85% Lifting Capacities (Kilograms) on Outriggers Fully Extended - 4 Section Boom

9.8m Swingaway - 360°

Radius in Meters (m)	0° Offset		15° Offset		30° Offset	
	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.
9	78.0	*4,030				
10	76.5	3,930	78.0	*3,350		
12	74.0	3,650	76.0	3,190	78.0	*2,805
14	71.0	3,350	73.0	2,950	75.5	2,610
16	68.0	3,045	70.5	2,715	72.5	2,335
18	65.0	2,720	67.5	2,500	69.5	2,185
20	62.0	2,345	64.0	2,300	66.5	2,090
22	58.5	2,000	61.0	2,000	63.5	2,000
24	55.5	1,715	58.0	1,715	60.0	1,715
26	52.0	1,325	54.5	1,325	56.5	1,325
28	48.0	985	50.5	985	53.0	985
30	44.5	690	47.0	690	49.0	690

* This capacity is based upon the maximum boom angle



Dimensions are for largest furnished hook block and headache ball with agit two block activated.



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9.8 m - 17.1 m Tele. Swingaway - 360°

Radius in Meters (m)	9.8m Length				13.4m Length				17.1m Length									
	0° Offset	15° Offset	30° Offset	30° Offset	0° Offset	15° Offset	30° Offset	30° Offset	0° Offset	15° Offset	30° Offset	30° Offset						
	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.	Boom Angle (Deg.)	Cap Kg.		
9	78.0	*3,855	0				78.0	*2,310										
3.5	76.5	3,755	78.0	*3,175			77.5	2,305										
12	74.0	3,475	76.0	3,015	78.0	*2,630	75.0	2,270	78.0	*1,950			76.5	1,810				
14	71.0	3,175	73.0	2,775	75.5	2,435	72.5	2,210	76.0	1,935	78.0	*1,495	74.5	1,770	78.0	*1,500		
16	68.0	2,870	70.5	2,540	72.5	2,160	70.0	2,110	73.5	1,820	76.0	1,470	72.5	1,725	76.0	1,450		
18	65.0	2,545	67.5	2,325	69.5	2,010	67.0	1,970	71.0	1,715	73.5	1,415	69.5	1,685	73.5	1,335	78.0	*1,040
20	62.0	2,170	64.0	2,125	66.5	1,915	64.5	1,805	68.0	1,610	70.5	1,355	67.5	1,635	71.5	1,240	75.0	990
22	58.5	1,825	61.0	1,825	63.5	1,825	61.5	1,620	65.5	1,500	68.0	1,295	65.0	1,555	69.0	1,160	72.5	935
24	55.5	1,540	58.0	1,540	60.0	1,540	58.5	1,435	62.5	1,380	65.0	1,235	62.5	1,405	66.5	1,095	70.0	890
26	52.0	1,150	54.5	1,150	56.5	1,150	55.5	1,260	59.5	1,260	62.0	1,175	60.0	1,125	63.5	1,040	67.0	850
28	48.0	810	50.5	810	53.0	810	52.5	1,045	56.5	1,045	58.5	1,045	57.0	850	61.0	850	64.5	810
30	44.5	515	47.0	515	49.0	515	49.0	755	53.5	755	55.5	755	54.5	615	58.0	615	61.5	615
32							46.0	500	50.0	500	51.5	500	51.5	385	55.0	385	58.5	385

* This capacity is based upon the maximum boom angle.

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Lifting Capacities on Rubber - 4 Section Boom

On Rubber 18.00 x 25-32 PR (Stationary Capacities - 360°)

Radius in Meters (m)	Tyre Inflation Pr. 8.1 kg/cm ²							
	Main Boom Length in Meters							
	10.6	12.2	15.2	*18.2	21.3	24.4	27.4	30.5
3	14,900 (66)	14,100 (69.5)	10,050 (74)					
3.5	13,000 (63)	12,400 (67)	8,955 (72)	8,300 (75.5)				
4	11,250 (60)	10,950 (64.5)	8,010 (70)	7,800 (73.5)				
4.5	9,845 (56.5)	9,810 (61.5)	7,340 (68)	7,120 (72)				
5	8,670 (53)	8,670 (58.5)	6,795 (66)	6,555 (70.5)				
6	6,835 (45)	6,765 (52.5)	5,900 (61.6)	5,735 (67)	4,750 (70.5)	2,800 (73.5)		
7	5,235 (36)	5,045 (46)	4,840 (57)	4,525 (63.5)	3,990 (67.5)	2,800 (71)		
8	4,020 (23)	3,810 (38.5)	3,605 (52)	3,370 (59.5)	3,300 (64.5)	2,800 (68.5)	2,050 (71.5)	920 (73.5)
9		2,895 (29)	2,680 (47)	2,430 (56)	2,635 (61.5)	2,435 (66)	2,050 (69)	920 (71.5)
10		2,190 (11.5)	1,965 (41)	1,730 (51.5)	2,180 (58.5)	2,055 (63)	2,040 (66.5)	920 (69.5)
12			930 (26)	730 (42.5)	1,005 (51.5)	1,005 (57.5)	820 (62)	820 (65.5)

Note: () Boom angles are in degrees.
 *18.2 m boom length is with inner-mid extended and outer-mid & fly retracted.



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Lifting Capacities on Rubber - 4 Section Boom

On Rubber 18.00 x 25-32 PR (Stationary - Defined Arc Over Front)

Radius in Meters (m)	Tyre Inflation Pr. 8.1 kg/cm ²							
	Main Boom Length in Meters							
	10.6	12.2	15.2	*18.2	21.3	24.4	27.4	30.5
3	16,925 (66)	14,100 (69.5)	10,050 (74)					
3.5	15,325 (63)	12,400 (67)	9,295 (72)	8,300 (75.5)				
4	13,850 (60)	11,125 (64.5)	8,695 (70)	8,005 (73.5)				
4.5	12,625 (56.5)	10,500 (61.5)	8,340 (68)	7,720 (72)				
5	11,600 (53)	10,075 (58.5)	8,090 (66)	7,215 (70.5)				
6	9,920 (45)	9,465 (52.5)	7,720 (61.6)	6,205 (67)	5,215 (70.5)	4,710 (73.5)		
7	8,630 (36)	8,360 (46)	6,735 (57)	5,460 (63.5)	4,835 (67.5)	4,360 (71)		
8	7,605 (23)	7,405 (38.5)	5,875 (52)	4,955 (59.5)	4,535 (64.5)	4,105 (68.5)	3,555 (71.5)	2,865 (73.5)
9		6,305 (29)	5,250 (47)	4,585 (56)	4,250 (61.5)	3,885 (66)	3,355 (69)	2,695 (71.5)
10		5,030 (11.5)	4,670 (41)	4,305 (51.5)	4,050 (58.5)	3,675 (63)	3,195 (66.5)	2,590 (69.5)
12			3,170 (26)	3,045 (42.5)	3,210 (51.5)	3,210 (57.5)	2,965 (62)	2,420 (65.5)
14				1,940 (31.5)	1,995 (44)	1,995 (51.5)	1,995 (57)	1,995 (61)
16				1,125 (11)	1,125 (35)	1,125 (45)	1,125 (51.5)	1,125 (56.5)
18					715 (22.5)	715 (37.5)	715 (46)	715 (51.5)

Note : () Boom angles are in degrees.

*18.2 m boom length is with inner-mid extended and outer-mid & fly retracted.



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Lifting Capacities on Rubber - 4 Section Boom

On Rubber 18.00 x 25-32 PR (Pick & Carry Capacities upto 4.0 KPH - Boom Centered Over Front)

Radius in Meters (m)	Tyre Inflation Pr. 8.1 kg/cm ²						
	Main Boom Length in Meters						
	10.6	12.2	15.2	*18.2	21.3	24.4	27.4
3	17,350 (66)	14,250 (69.5)					
3.5	15,600 (63)	13,400 (67)	12,825 (72)				
4	13,950 (60)	12,750 (64.5)	12,075 (70)				
4.5	12,575 (56.5)	12,550 (61.5)	11,425 (68)	10,450 (72)			
5	11,425 (53)	11,425 (58.5)	10,850 (66)	9,545 (70.5)			
6	10,000 (45)	9,580 (52.5)	9,455 (61.6)	7,980 (67)	6,330 (70.5)		
7	8,000 (36)	8,000 (46)	7,890 (57)	6,730 (63.5)	5,435 (67.5)		
8	6,820 (23)	6,770 (38.5)	6,740 (52)	5,710 (59.5)	4,755 (64.5)	4,755 (68.5)	4,485 (71.5)
9		5,780 (29)	5,705 (47)	4,900 (56)	4,275 (61.5)	4,275 (66)	4,250 (69)
10		4,900 (11.5)	4,785 (41)	4,400 (51.5)	3,920 (58.5)	3,920 (63)	3,920 (66.5)
12			3,170 (26)	3,045 (42.5)	3,210 (51.5)	3,210 (57.5)	3,210 (62)
14				2,000 (31.5)	1,995 (44)	1,995 (51.5)	1,995 (57)
16				1,125 (11)	1,125 (35)	1,125 (45)	1,125 (51.5)
18					715 (22.5)	715 (37.5)	715 (46)

Note : () Boom angles are in degrees.
 *18.2 m boom length is with inner-mid extended and outer-mid & fly retracted.



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Notes

Notes for Lifting Capacities

WARNING: THIS CHART IS ONLY A GUIDE. The Notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other Instruction plates must be read and understood prior to operating the crane.

1. Capacities are in accordance with SAE J1063 and do not exceed 85% of the tipping load as determined by SAE J765.
2. The weight of hookblock, slings and all similarly used load handling devices must be added to the weight of the load. When more than minimum required reeving is used, the additional rope weight shall be considered part of the load.
3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
4. All capacities are for crane on firm, level surface. It may be necessary to have structural supports under the outrigger floats or tyres to spread the load, to a larger bearing surface.
5. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.
6. On rubber lifting with 800m extensions not permitted.
7. Tyres shall be inflated to the recommended pressure before lifting on rubber. Capacities must be reduced for lower tyre inflation.
8. If machine is equipped with individually controlled powered boom sections, the boom sections must be extended equally at all times.
9. Defined Arc $\pm 6^\circ$ on either side of longitudinal centerline of machine.
10. For Pick & Carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging. When handling loads in the structural range with capacities close to max. rating, travel should be reduced to creep speeds (not over 61m of movement in 30 min, not exceeding 1.6 KPH).

11. Axle lockouts must be functioning before lifting on rubber.
12. 9.8 m Fixed offsettable boom extension warning: For main boom length greater than 24.4 m with 9.8m tele, boom extension in working position, the boom angle must not be less than 40° since loss of stability will occur causing a tipping condition.
13. 9.8 m - 17.1 m tele, offsettable boom extension warning: For main boom length greater than 24.4 m with 9.8 m - 17.1m tele, boom extension in working position, the boom angle must not be less than 40° since loss of stability will occur causing a tipping condition.
14. Radii listed are for a fully extended boom with the boom extension erected. For main boom length less than fully extended, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.

WARNING: Operation of the machine with heavier load than the capacities listed is strictly prohibited. Machine tipping occurs without advance warning.

No Load Stability on Rubber

No load Stability Data		Main Boom 33.5m
Front (No load)	Min. boom angle (deg.) for indicated length Max. boom length (m) at 0° boom angle	40 21.3
360°	Min. boom angle (deg.) for indicated length Max. boom length (m) at 0° boom angle	55 15.2



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Carrier Specification

FRAME

High strength alloy steel welded box section with integral outrigger housings and front/rear lifting, towing and tie down lugs.

OUTRIGGER SYSTEM

4 hydraulically telescoping beams with 'Inverted' jacks with integral holding valves positioned two nos. in each outrigger housing. Provides steel fabricated quick release type outrigger float for each jack.

OUTRIGGER CONTROLS

Independent control of each outrigger beam located in cab on front dash panel along with level indicator.

ENGINE

Cummins B5.9 173 C31, 173 HP @ 2500 RPM,
Max. Torque - 660 Nm @ 1500 RPM,
Emission : BS III CEV

FUEL TANK

Capacity 227 liters.

ELECTRICAL SYSTEM

Two 12 Volt-batteries, 24 Volt lighting equipment including two headlights, side, tail and stop lights and flashing direction indicators.

DRIVE

4x4 / 4x2

STEERING

Fully independent power steering:
Front: Full hydraulic controlled by steering wheel.
Rear: Full hydraulic selector switch controlled.
Provides infinite variations of 4 main steering modes - front only, rear only, crab and coordinated. Rear wheel steer indicator. Auto - reversal steering mechanism.

TRANSMISSION

Engine mounted full power shift with 6 forward and 3 reverse speeds. Provides front axle disconnect for 4x2 travel.

AXLES
Front: Drive-steer with differential and planetary reduction hubs rigidly mounted to the chassis frame.
Rear: Drive-steer with differential and planetary reduction hubs, pivot mounted at centre of the chassis frame.

OSCILLATION LOCKOUTS

Automatic full hydraulic lockouts on rear axle permit oscillation only with boom centered over front.

TYRES

18.00 X 25 - 32 PR earthmover tyres.

BRAKES

Fully hydraulic, split circuit operating on all wheels. Spring applied, hydraulically released front axle mounted parking brake.

INSTRUMENTATION

Engine oil pressure gauge, Fuel gauge, Water temperature gauge, Voltmeter, Tacho-Hourmeter, Indicators and Switches for control.

OIL COOLER

Remote mounted with thermostatically controlled, electric motor driven fan.

MAXIMUM SPEED

30 kmph.

GRADEABILITY

45% (Maximum) Unladen.

GROSS VEHICLE WEIGHT AND AXLE LOADS (approx)

Front: 15,040 kg

Rear: 14,630 kg

GVW: 29,670 kg

Optional Weights (approx.)

Fixed Lattice : 1000 kg

Tele lattice : 1300 kg

Auxiliary Hoist : 700 kg

Man Carrying Basket : 550 kg

MISCELLANEOUS STANDARD EQUIPMENT

Full width steel fenders, rear view mirror, back-up alarm, front stowage well, tool kit.

OPTIONAL EQUIPMENT

Fire suppression system

Fire extinguisher

Centralized Lubrication System

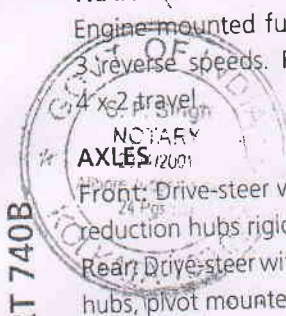
Tow hook on chassis frame

Man Carrying Basket

360° Beacon lights

Cab Spot Light

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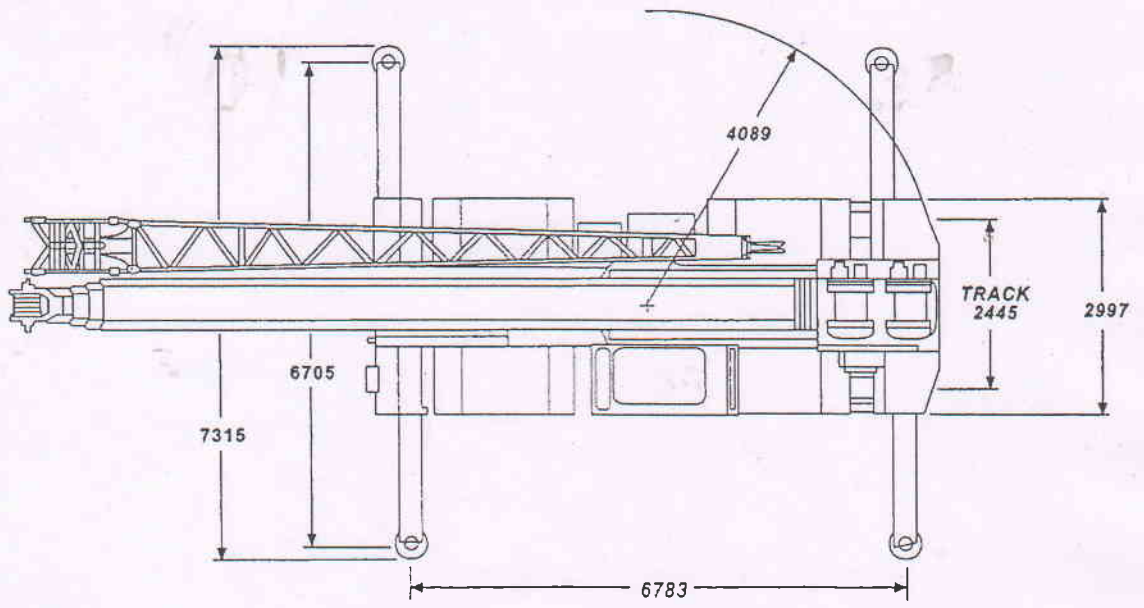
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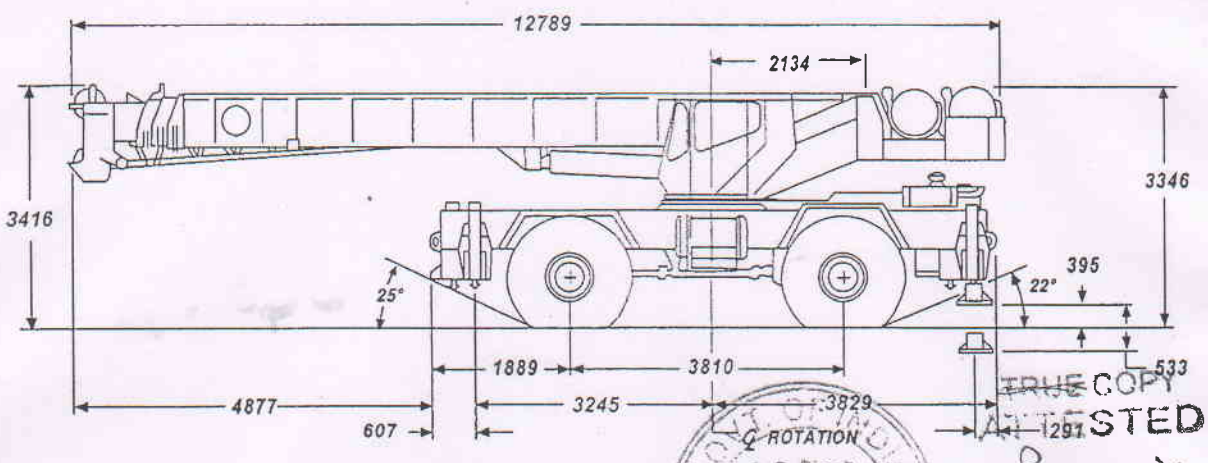


GA Drawing

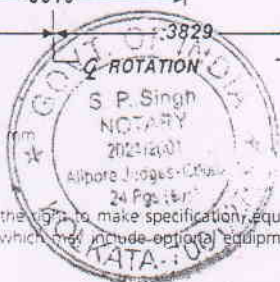


Turning Radius

- 2 Wheel Steer : 10,739
- 4 Wheel Steer : 6,099



Dimensions in mm



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Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment and price changes without notice. The photographs/drawings in this document are just for illustrative purpose which may include optional equipment and accessories, which can be provided at an additional cost on request.

07 FEB/2018

Amelangshu Pal



Technical Specification TIL/RT740B/1117

RT-740B

CONFIRMATION TO TECHNICAL SPECIFICATIONS OF ANNEXURE-A

TECHNICAL SPECIFICATIONS	TIL CONFIRMATION : CRANE MODEL RT 740B
PART - D:-EQUIPMENT SPECIFICATIONS	
TECHNICAL SPECIFICATION OF 40 TONNE CRANE	
8.1. General	
a. Number of similar model supplied during the last five years. The information shall be given in the following format and in the order of most recent first	List of supplies as per NIT format is attached herewith
b. Details of nearest existing Depot, Warehouse and Service Facility	Details of Depot / Warehouse & Service Facility is attached
c. Details of special tools to be provided with the equipment	List of Tool Kit & Special Tools, is attached herewith
d. Details of erection programmes for the bid	Details of Erection Programme is attached herewith
8.2. Technical Details	
a) Technical characteristics and acceptance documents in accordance with ISO 7353.	Complied
b) Lifting capacity range diagrams and tables.	Available in Technical Specification Sheet attached herewith.
c) Detailed technical descriptions of the crane.	Available in Technical Specification Sheet attached herewith
d) Layout drawings and detailed technical descriptions of hydraulic systems and components.	Hydraulic System along with Layout drawing is attached herewith
e) Details of major bought-out assemblies and sub-assemblies including manufacturer, type, etc.	Major bought-out assemblies is attached herewith
f) Comprehensive commercial literature specifications.	Not applicable
g) Operation and maintenance manuals	Will be supplied along with the crane
8.3. Dimensions, Weights and Performance Details	
8.3.1. Dimensions	
a) Maximum overall length	a) 12780 mm
b) Maximum overall width	b) 2997 mm
c) Maximum overall height	c) 3416 mm
d) Tail radius	d) 4089 mm
e) Wheelbase	e) 3810 mm
f) Ground clearance	f) 450 mm (approx)
8.3.2. Weight Distribution	
a) Front axle	a) 15,040 kg.
b) Rear axle	b) 14,630 kg.
c) Total	c) 29,670 kg
8.3.3. Lifting capacity	
a) At 3 m radius	a) 40 T at 3m radius with boom 10.6m On Fully Extended Outrigger.
b) At 4 m radius	b) 28.275 T at 4m radius with boom 10.6m on Outrigger Fully Extended
c) 360° clear outreach	
a) 0 m	At 0 m - 23.9T @ 5m radius with 10.6m Boom Length.
a) 1 m	At 1 m - 20.27T @ 5m radius with 10.6m Boom Length.
a) 1.5 m	At 1.5 m - 17.05T @ 7m radius with 10.6m Boom Length
d) On wheels:	
a) 3 m radius	a) 3m radius - 14.90T (360° slew)
a) 4 m radius	a) 4m radius - 11.25T (360° slew)
a) 5 m radius	a) 5m radius - 8.67T (360° slew)
e) On wheel clear outreach:	
a) 0 m	0 m - 11.25T @ 4m radius with 10.6m Boom Length. (360° slew)
a) 1 m	1 m - 8.67T @ 5m radius with 10.6m Boom Length. (360° slew)
a) 1.5 m	1.5 m - 6.83T @ 6m radius with 10.6m Boom Length. (360° slew)
f) Pick and carry capacity at 5 km/hr:	
a) 3 m radius	a) 3m radius - 17.35T (over front)
a) 4 m radius	a) 4m radius - 13.95T (over front)
a) 5 m radius	a) 5m radius - 11.425T (over front)
g) Lift of rated load at minimum radius in meters :	
Below ground level	Below Ground level - 4.0m
Above ground level	Above Ground level - 10.0m
8.3.4. Operating speeds	
a) Hoist	a) Hoist speed - 105 m/min. (top layer)
b) Slewing RPM	b) Slewing RPM - 2.0 RPM
c) Derricking	c) Derricking - 40 sec. (derrick-in)
d) Travelling	d) Travelling - 30 kmph.
8.3.5. Engine	
a) Manufacturer and model	a) Manuf. and model - Cummins, B5.9 173 C31
b) Number of cylinders	b) Number of cylinders - 6 (six)
c) Bore	c) Bore - 102 mm
d) Stroke	d) Stroke - 120 mm
e) Displacement	e) Displacement - 5683 cc
f) Net power at/min	f) Net power - 155 HP at 2500 RPM
g) Maximum torque	g) Max. torque - 660 Nm at 1500 RPM
8.3.6. Transmission	
a) Type	a) Type - Engine mounted full power shift
b) Number of gear speeds - forward and reverse	b) Number of gear speeds - 6 Forward and 3 Reverse
c) Travel speeds - forward and reverse	c) Travel speeds - Forward 30/ 19.6/ 13.6/ 8/ 5.27/ 3 km/hr. Reverse 19.6/ 8/ 3 km/hr.
8.3.7. Final Drive	
a) Type	a) Type - 4X4/ 4X2, Drive and steer
b) Ratio	b) Ratio - 24.6 (carrier 5.83 x wheel 3.6)
8.3.8. Steering	
a) Type	a) Type - Hydraulic power steering
b) Emergency steer method	b) Emergency steer method - Through manual operation of same orbitrol steering unit
c) Turning circle:	
All wheel steer	All wheel steer - 6.099 m radius
Front wheel steer	Front wheel steer - 10.739 m radius.

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d) Clearance circle:	
All wheel steer	All wheel steer - 9.912 m
Front wheel steer	Front wheel steer - 13.45 m
8.3.9. Brakes	
8.3.9.1. Service brakes	
a) Type	a) Type - Foot operated hydraulic brake on all wheels
b) Actuating system	b) Actuating system - Hydraulic
8.3.9.2. Parking brake	
a) Type	a) Type - Spring applied, hydraulically released brake
b) Actuating system	b) Actuating system - Mechanical
8.3.9.3. Emergency brakes	
a) Type	a) Type - Accumulator based hydraulic brake
b) Actuating system	b) Actuating system - Hydraulic
8.3.10. Derricking System	
a) Derricking	One double acting hydraulic cylinder with integral holding valve
b) Max. to Min. radius in secs	b) Max. to Min. radius in secs. - 40 sec.
c) Min. to max. radius in secs	c) Min. to max. radius in secs - 50 sec
8.3.11. a) Slew System	
b) Slewing RPM	a) Ball bearing swing circle with 360 degree continuous rotation. Planetary glide swing with foot-applied multi-disc brake. Spring applied, hydraulically released parking brake. Mechanical house lock operated from cab. b) Slewing RPM - 2 RPM (unladen)
8.3.12. Tyres	
a) Make, Size and type	Reputed Indian Manufacturer, Size:18X25 ;Type: Earthmover tubeless tyres
b) Tread	E3
c) Ply rating	32PR
d) Rim size	13X25 inches
8.3.13. Hydraulic System	
a) Make, Number, flow rates and operating pressures of pumps	1 no. - 2 section gear pump(P320)- flow rating- 1st sec.- 44.4 cc/rev ; 2nd sec. - 32.28 cc/rev ; Operating pressure- 207 bar 1 no. - 2 section gear pump(P350)- flow rating- 1st sec.- 62.76 cc/rev ; 2nd sec.- 52.27 cc/rev.; Operating pressure- 240 bar
b) Make, Number, piston diameters and stroke lengths of cylinders	Tele cyl. 2 nos. bore X stroke- 140 X 7646 mm Lift cyl. 1 no. bore X stroke- 250 X 2258 mm O/R ram 4 nos. bore X stroke- 63 X 1937 mm jack 4 nos. bore X stroke- 110 X 534 mm nos. bore X stroke- 125 X 168 mm bore X stroke- 80 X 263 mm O/R Lockout cyl. 2 Steering cyl. 4 nos.
c) Relief valve operating pressures	Press. relief setting- Hoist + Telo + Lift + O/R - 240 bar ; Slew- 103 bar
8.3.14. Outriggers	
a) Horizontal stroke	a) Horizontal stroke - 1937 mm (per side)
b) Vertical stroke	b) Vertical stroke - 534 mm
8.3.15 Axles	
a) Front Axle	a) Rigidly mounted on chassis frame
b) Rear Axle	b) Pivot mounted at centre of chassis frame.
8.3.16. Boom	
a) Basic length	10.6m - 33.5m
b) Fully retracted length	10.6 m
c) Intermediate position length	12.2, 15.2, 18.2, 21.3, 24.4, 27.4, 30.5 m
d) Fully extended length	33.5 m
8.3.17. Boom telescoping	
a) Normal speed	a) Normal speed - 95 sec. (tele out)
b) Fast speed	b) Fast speed - No fast speed
8.3.18 With Derrick down	
a) Overall length	a) Overall length - 12789 mm
b) Overall height	b) Overall height - 3416 mm
c) Overall width	c) Overall width - 2997 mm
8.3.19 a) Tail radius (m)	
b) Wheel base (m)	a) Tail radius - 4,089 mm
c) Ground clearance (mm)	b) Wheel base - 3,810 mm
d) Angle of approach	c) Ground clearance - 450 mm (approx.)
e) Gradient (unladen and at max. rated load)	d) Angle of approach - 25°
f) Max. travel speed	e) Gradient (unladen) - 45% ; Gradient with load not feasible
	f) Max. travel speed - 30 kmph
8.3.20. Electrical System	
a) Starter make and model	a) Starter - As per engine manufacturer
b) Starter control make and model	b) Starter control - As per engine manufacturer
c) Alternator make and model	c) Alternator - As per engine manufacturer
d) Batteries - numbers and rating	d) Batteries - 2 nos., 12V 180AH
e) Lighting details	e) Lighting details - Headlights, Brake, tail and parking lights, Turn indicators, Hazard lights & Working light.
8.3.21. Turning Circle	
a) 4 wheel steer (m)	a) 4 wheel steer - 6.099 m (radius)
b) front wheel steer (m)	b) front wheel steer - 10.739 m (radius)
8.3.22. Rope	
a) Make	a) Make - Usha Martin
b) Dimension	b) Dimension - 19mm dia. & length 152m
c) Specification	c) Specification - Non-spin hoist rope, ungalvanized, Lay RHO



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MAKE LIST

SL NO.	ITEMS	RT 740B
1	ENGINE	CUMMINS
2	TRANSMISSION	DANA SPICER
3	FRONT AXLE	AXLE TECH
4	REAR AXLE	AXLE TECH
5	O/R JACK CYLINDER	WIPRO
6	O/R RAM CYLINDER	WIPRO
7	LIFT CYLINDER	WIPRO
8	TELE CYLINDER	WIPRO
9	HYDRAULIC PUMP	COMMERCIAL INTERTECH (PARKER) (GROVE SUPPLY)
10	STEERING CYLINDER	WIPRO
11	SUSPENSION CYLINDER	WIPRO
12	DIRECTIONAL CONTROL VALVES	COMMERCIAL INTERTECH (PARKER)
13	SLEW RING	ROTHE ERDE
14	SLEW UNIT	COMER INDUSTRIES / BONFIGLIOLI
15	HOIST UNIT	BRADEN / DINAMIC OIL
16	JOYSTICK CONTROLLER	HYDRO CONTROL / REXROTH
17	HOIST ROPE	USHA MARTIN/VEEROPE
18	LMI SYSTEM	KRUGER / HIRSCHMANN
19	HOOK BLOCK	FORGING ENTERPRISES/ ROPEBLOCK/ DEHAAN / HENAN HUABEI
20	TYRES	MRF/JK TYRES OR EQUIVALENT
21	BATTERY	EXIDE / AMARON

NOTE : THE ABOVE ITEMS CAN BE REPLACED BY FUNCTIONALLY EQUIVALENT ITEMS DEPENDING UPON AVAILABILITY



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ANNEXURE - C

Tender Inviting Authority: GM (MM) / HOD, BCCL Dhanbad.
 Name of Work: Supply of Diesel powered 40 tonnes hydraulic rough terrain mobile crane
 MIT No. BCCL/Pur/615214(15-16)/40T Crane/17-18/74 Date: 10.01.2018
 Bidder Name: TIL Limited

BIDDER TO INDICATE TYPE OF CURRENCY

Sl. No.	Part No.	Description	Unit of Measurement	Quantity	Unit Rate	Extended Value
1	5285612	ELEMENT LUB. FILTER	Nos	12	1980	23760
2	3978040	ELEMENT FUEL FILTER	Nos	12	1792	21504
3	3329289	SEPARATOR, FUEL WATER	Nos	12	4800	57600
4	3815928	ELEMENT OUTER - AIR	Nos	6	4700	28200
5	3815929	ELEMENT INNER - AIR	Nos	6	4000	24000
6	3931868	FUEL STRAINER	Nos	6	3850	23100
7	9437100485	FILTER ELEMENT -HYD	Nos	6	21790	130740
8	9437100754	ELEMENT HYD .HI-PRESSURE	Nos	6	8049	48294
9	7437000873	FILTER ASSY.	Nos	6	12830	76980

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Standard tool kit list for RT 740B		
Item	Description	Quantity
Z7902000001	PREVENTIVE MAINTENANCE TOOL KIT ASSY	1
Z7902000002	TOOL BOX	1
Z7902000003	1/2 " DRIVE 12 POINT SOCKET SET	1
Z7902000057	STD SOCKET 12 POINT 7/16" (1/2" DRIVE)	1
Z790000058	STD SOCKET 12 POINT 1/2" (1/2" DRIVE)	1
Z7902000059	STD SOCKET 12 POINT 9/16" (1/2" DRIVE)	1
Z7902000060	STD SOCKET 12 POINT 5/8" (1/2" DRIVE)	1
Z7902000061	STD SOCKET 12 POINT 11/16" (1/2" DRIVE)	1
Z7902000062	STD SOCKET 12 POINT 3/4" (1/2" DRIVE)	1
Z7902000066	STD SOCKET 12 POINT 15/16" (1/2" DRIVE)	1
Z7902000070	STD SOCKET 12 POINT 1 - 1/4" (1/2" DRIVE)	1
Z7902000005	1/2" DRIVE EXTENSION 10"	1
Z7902000006	1/2" DRIVE RACHET	1
Z7902000155	D.E. SPANNER SET	1
8346551	D/E SPANNER 8X10	1
8346699	D E SPNR. 5/16" X 1/4"	1
114687	D.E.SPANNER 3/8"X7/16"	1
4735200	D.E. SPANNER 1/2" X 9/16"	1
114689	D.E.SPANNER 5/8"X3/4"	1
Z7902000157	D.E. SPANNER 25/32" X 7/8"	1
114691	D.E.SPANNER 15/16"X1"	1
8305471	D.E. SPANNER 1" X 1. 1/8"	1
Z7902000158	D.E. SPANNER 1. 1/16" X 1. 1/4" (27X32 MM.)	1
Z7902000174	D.E. SPANNER 7/8" X 13/16"	1
Z7902000175	D.E. SPANNER 11/16" X 19/32"	1
Z7902000011	BALL PIN HAMMER	1
Z7902000012	STD SCREW DRIVER SET	1
Z7902000023	PHILLIPS # 2 X 4"	1
114680	SCREW DRIVER-6" ELEC - 936	1
8380008	SCREW DRIVER 10"	1
114683	COMBINATION PLIER-8"	1
Z7902000015	ALLEN WRENCH SET	1
Z7902000047	ALLEN KEY SIZE - 5/64"	1
Z7902000048	KEY SIZE - 3/32"	1
Z7902000049	ALLEN KEY SIZE - 1/8"	1
Z7902000050	KEY SIZE - 5/32"	1
Z7902000051	ALLEN KEY SIZE - 3/16"	1
Z7902000052	KEY SIZE - 7/32"	1
Z7902000053	ALLEN KEY SIZE - 1/4"	1
Z7902000054	ALLEN KEY SIZE - 5/16"	1
Z7902000055	ALLEN KEY SIZE - 3/8"	1
Z7902000056	KEY SIZE - 1/2"	1
Z7902000016	OIL CAN 6 OZ	1
Z7902000017	GREASE GUN	1
X7902000167	GREASE GUN HOSE	1
Z7902000160	ADJUSTABLE RANGE - 6"	1
320206	ADJ.SPANNER-15"	1
Z7902000329	D. E. SPANNER - 6 x 7MM	1
Z7902000330	D. E. SPANNER- 8 x 9MM	1
Z7902000331	D. E. SPANNER - 10 x 11MM	1
Z7902000332	D. E. SPANNER - 12 x 13MM	1
Z7902000333	D. E. SPANNER - 14 x 15MM	1
Z7902000334	D. E. SPANNER - 16 x 17MM	1
Z7902000335	D. E. SPANNER - 18 x 19MM	1
Z7902000336	D. E. SPANNER - 20 x 22MM	1
Z7902000337	D. E. SPANNER - 21 x 23MM	1
Z7902000338	D. E. SPANNER - 24 x 27MM	1
Z7902000339	D. E. SPANNER - 25 x 28MM	1
Z7902000340	D. E. SPANNER - 30 x 32MM	1
Z7902000341	D. E. SPANNER - 32 x 36MM	1

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Special tool kit list for RT740B		
Item	Description	Quantity
X7902000215	COMPRESSION GAUGE ADAPTER	1
X7902000216	BLOW BYE CHECKER	1
X7902000217	FEELER GAUGE	1
8335662	HYD OIL PR.GAUGE KIT ASSY	1
8341484	HYDRAULIC OIL PRESSURE GAUGE	1
Z744300030	MINIMAX CPLG.(PARKER- EMA3/1/4 ED)	1
X748600012	MINITESTHOSE-M16X2CONN./PR.GAUGE.CONN.-1MTR	1
X7902000218	PIPE WRENCH 18"	1
X7902000219	PISTON SEAL INSERT	1
X7902000220	SET OF INNER CIRCLIP PLIER	1
X7902000221	SET OF OUTER CIRCLIP PLIER	1
X7902000222	ALLEN KEY SET	1
X7902000223	SCREW DRIVER SET	1
X7902000224	MULTIMETER	1
X7902000225	HANDY SMOKE CHECKER	1



Amalangshu Pal

TIL Limited
Registered Office.
1, Taratolla Road, Garden Reach
Kolkata-700 024
Ph : 8633-2000, 8633-2845
Fax : 2469-3731/2143
Website : www.tilindia.in

DETAILS OF NEAREST MAJOR DEPOT / WAREHOUSE AND SERVICE FACILITY

Major Depot / Warehouse			Service Facility		
Location	Contact No.	Inventory Value (approx.) (Rs. in Lakhs)	Location	Type of facility available	No. of Engineers
Kolkata	033-66332000 033-66332152	1800	Kolkata	Fully Equipped Crane Repairing Workshop	20
Dhanbad	0326-2230743	110	Kolkata	Repairing / Service Facility through Service Engineer	2
Asansol	0341-225-3160/2731	75	Ranchi	Repairing / Service Facility through Service Engineer	1
West Bokaro	06545-292018/292019	200	Dhanbad	Repairing / Service Facility through Service Engineer	1
			Asansol	Repairing / Service Facility through Service Engineer	1

For TIL LIMITED

Amalanshu Pal

(Authorized Signatory)

05.02.2018



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Annexure -F
FORMAT OF BANK GUARANTEE FOR SECURITY DEPOSIT

M/s. Bharat Coking Coal Ltd.
Koyla Bhawan
Koyla Nagar
Dhanbad – 826005

In consideration of M/s Bharat Coking Coal Ltd. having its office at Koyla Bhawan, Koyla Nagar, Dhanbad hereinafter called "the Purchaser" (which expression shall unless repugnant to the subject or context including its successors and assigns) having agreed under the terms and condition of Contract No. dated made between M/s a Company having its office at (hereinafter called the supplier in connection with supply of hereinafter called the "said Contract" to accept a Deed of Guarantee as herein provided for Rs. in lieu of the security deposit to be made by the supplier for their due fulfillment of the terms contained in the said Contract, we, the Bank Limited (hereinafter referred to as the said Bank having its office at do hereby undertake and agree to indemnify and keep indemnified that Purchaser from time to time the extent of Rs.(Rupees :) against any loss. Damage caused charges and expenses caused to or suffered by or that may be caused to suffered by Purchaser by reason of any breach or breaches by the said supplier or any of the terms and conditions contained in the said Contract and to unconditionally pay the amount claimed by the Purchaser on demand and without demur to the extent aforesaid.

We, the(Name of the Bank) do hereby agree that any demand made by Purchaser on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. We shall not withhold the payment on the ground that the supplier has disputed its liability to pay or has disputed the quantum of amount or that any legal proceeding is pending between the Purchaser and the Supplier regarding the claim. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs.

We, the(Name of the Bank) do further agree Guarantee herein contained shall come into force from the date hereof and shall remain in full force and effect up to Unless demand or claim under this Guarantee is made on us in writing on or before we shall be discharged of all liabilities under this Guarantee thereafter.

We, the (Name of the Bank) further agree with the Purchaser that the Purchaser, shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend the time of delivery of the specified items in the Contract from time to time or to postpone for any time or from time to time any of the powers exercisable by the Purchaser against the said supplier and to forebear or enforce any of the terms and conditions relating to the said contract we shall not be relieved from our liability by the reason or any such variations or extension being granted to the said Supplier or for any forbearance act or omission on the part of the Purchaser or any indulgence by the Purchaser to the said Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us 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 Purchaser the said sum of or such lesser sum as may then be due to the Purchaser and as the Purchaser may demand.

We, the (Name of the Bank) lastly undertakes not to revoke this Guarantee during this currency except with the previous consent of the Purchaser in writing.

The Bank has under its constitution power, to give this Guarantee and Mr. Manager who has signed it on behalf of the Bank has authority to do so.

This Bank Guarantee will not be discharged due to the change in the constitution of the Bank or the Supplier.

[In case the BGs are from outstation branch of Dhanbad then BG shall be encashable at Dhanbad/Kolkata branch of issuing bank with address and location of the said branch at Dhanbad/Kolkata will be as under.

Name of the Bank :
Name of the Branch :
Location & Address :

The BG shall be subject to the jurisdiction of the competent courts at Dhanbad District only.]

The Bank guarantee issued by the Bank on behalf of the supplier in favour of Bharat Coking Coal Limited, shall be in paper form as well as issued under "Structural Financial Messaging System". The detail of beneficiary for issue of BG under SFMS mode are furnished below:

Name of Bank : State Bank of India
Branch name : Main Branch Dhanbad
A/C no. : 35160317947
IFSC Code : SBIN0000066

OR

Name of Bank : ICICI Bank
Branch name : ICICI Bank, Dhanbad
A/C no. : 019605001057
IFSC Code : ICIC0000196

Datedday of
For Bank

Signature of the authorized person
For and on behalf of the Bank
Emp. Code.

Annexure-G

FORMAT OF PERFORMANCE BANK GUARANTEE

1. Messers ----- a company having Regd. Office /its office at -----
-----hereinafter called the Seller has entered into a Contract No.-----
-----dt.----- (hereinafter called the said Contract) with Bharat Coking Coal Limited having its Regd. Office (address to be
given.----- (hereinafter called , the Purchaser) to supply equipment on the terms and conditions in the
said Contract.

It has been agreed that hundred percentage(100%) payment of the value of the equipment will be made to the seller in the
terms of the said Contract on the seller furnishing to the Purchaser a Bank Guarantee for the sum of ----- equivalent to 10 %
of the value of each equipment and accessories dispatched by the seller as security for the due and faithful performance of the terms of
the said contract and against any loss or damage caused to or would be caused to or suffered by the purchaser by reason of any of the
terms or conditions contained in the said contract.

The----- Bank having its office at ----- has at the request of seller agreed to give the guarantee
herein after contained.

2. We,----- (Name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee
without any demur merely on a demand from the purchaser stating that the amount claimed is due by way of loss or damage caused to
or would be caused to or suffered by the purchaser by reason of any breach by the said seller of any of the terms or conditions
contained in the said contract or by reason of the seller's failure to perform the said contract. Any such demand made on the Bank
shall be conclusive as regards the amount due and payable by the Bank under this guarantee. We shall not withhold the payment on the
ground that the seller 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 purchase and the seller regarding the claim. However , our liability under this guarantee shall be
restricted to an amount not exceeding -----.

3. We,----- (Name of the Bank) further agree that the guarantee herein contained shall come into force from the
date hereof and shall remain in full force and effect during the period of the said contract and that it shall continue to be enforceable
till all the dues of the purchase under or by virtue of the said contract have been fully paid and its claim satisfied or purchase certified
that the terms and conditions of the said contract have been fully and properly carried out by the said seller and accordingly discharged
the guarantee .Unless a demand or claim under this guarantee is made on us in writing on or before the ----- (date to be
given-----period of contract + 90 days from the date of Bank Guarantee) we shall be discharged from all liability under this
guarantee thereafter.

4. We, (Name of the Bank) further agree with the purchaser ,that the purchaser , shall have the fullest liberty without our consent and
without affecting in any manner no obligations hereunder to vary any of the terms and conditions of the said contract or to extend
time of performance by the said seller(s) from time to time or to postpone for any time or from time to time any of the powers
exercisable by the purchaser , against the said seller and to forbear or enforce any of the terms and conditions relating to the said
contract and we shall not be relived from our liability by reason or any such variation or extension being granted to the said seller or
for any forbearance act or omission on the part of the purchaser , or any indulgence by the purchaser to the said seller by any such
matter or thing whatsoever which under the law relating to sureties would be for this provision have effect of an relieving us. 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 this purchaser the said sum of ----- or such lesser sum as may than be due the
purchaser and as the purchaser may demand.

5. We ,----- (Name of the Bank) lastly undertake not to revoke this guarantee during its currency except with the previous
consent of the purchaser , in writing.

6. The Bank has under its constitution power to give this guarantee and Mr.-----Manager , who has signed it on behalf of
the Bank has authority to do so.

7. This Bank Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

[In case the BGs are from outstation branch of Dhanbad then BG shall be encashable at Dhanbad/Kolkata branch of issuing bank with
address and location of the said branch at Dhanbad/Kolkata will be as under :

Name of the Bank :
Name of the Branch :
Location & address :

The BG shall be subject to the jurisdiction of the Civil courts Dhanbad District only.]

The Bank guarantee issued by the Bank on behalf of the supplier in favour of Bharat Coking Coal Limited, shall be in paper form as
well as issued under " Structural Financial Messaging System". The detail of beneficiary for issue of BG under SFMS mode platform
are furnished below:

Name of Bank : State Bank of India
Branch name : Main Branch Dhanbad
A/C no. : 35160317947
IFSC Code : SBIN0000066

OR

Name of Bank : ICICI Bank
Branch name : ICICI Bank, Dhanbad
A/C no. : 019605001057
IFSC Code : ICIC0000196

platform is furnished below:

Date----- Day of -----20

For ----- Bank

Signature of the authorised person

for and on behalf of the Bank
Emp. Code.

Annexure-K

GENERAL TERMS AND CONDITIONS OF SUPPLY OF STORES

1. Definition: In the interpretation of the Contract and the general and special conditions governing it unless the context otherwise requires:

- i. "Contract" means the invitation of tender, instructions to tenderers, acceptance of tender, particulars and the general and special conditions specified in the acceptance of tender and includes a repeat order which has been accepted and acted upon by the supplier.
 - ii. The term "SUPPLIER" shall mean the person, firm or company with whom the contract is placed and shall be deemed to include the supplier in successors (approved by the Purchaser) representatives, heirs, executors, administrators and permitted assignee as the case may be.
 - iii. "CONTRACT PRICE" shall mean the sum accepted or the sum calculated in accordance with the price and / or terms accepted by or on behalf of the purchaser.
 - iv. The Chairman – cum- Managing Director means Chairman – cum Managing Director of BCCL, Dhanbad
 - v. The term DRAWING shall mean the drawings, the plans specified in or annexed to the schedule of specification.
 - vi. The term "PURCHASE EXECUTIVE" shall mean the purchaser or purchaser named in the schedule to the tender, his or their successors or assignees.
 - vii. The term INSPECTOR shall mean any person nominated by or on behalf of the purchaser to inspect supplies, Stores or works under the contract or his duly authorized agent.
 - viii. The term PROGRESS OFFICER shall mean any person nominated by or on behalf of the purchaser to visit supplier's works to ascertain the position of deliveries of stores purchased.
 - ix. The term MATERIALS shall mean anything used in the manufacture or fabrication of the stores.
 - x. The term PARTICULARS shall mean the following:
 - a. Specification
 - b. Drawing
 - c. Sealed pattern denoting a pattern sealed and signed by the inspector
 - d. Certified or sealed sample denoting a copy of the sealed patter or sample sealed by the purchaser for guidance of the Inspector.
 - e. Trade pattern denoting a standard of the ISI or other standardizing authority of Bharat Coking Coal Ltd and / or a general standard of the Industry and obtainable in the open market.
 - f. Proprietary make denoting the product of an individual manufacturer
 - g. Any other details governing the construction, manufacturer and or supply as existing in the contract
 - xi. STORES means the goods specified in the supply order or schedule which the contractor has agreed to supply under contract.
 - xii. The term TEST shall mean such test or tests as are prescribed by the specification or considered necessary by the Inspector or any agency acting under direction of the Inspector.
 - xiii. The term SITE shall mean the place or places named in the SUPPLY ORDER or such other place or places at which any work has to be carried out as may be approved by the purchaser.
 - xiv. Works denoting the persons shall include any company or association or body of individuals whether incorporated or not.
 - xv. WRITING shall include any manuscript, typewritten or printed statement under or over signature or seal as the case may be.
 - xvi. UNIT & QUALITY means the unit and quantity specified in the schedule.
 - xvii. SUPPLY ORDER or PURCHASE ORDER means an order for supply of stores and includes an order for performance.
2. The delivery of stores shall be deemed to take place on delivery of the stores in accordance with the terms of the contract after approval of stores by the Inspector to :

- i. The consignee at his premises or
- ii. Where so provided the interim consignee at his premises or
- iii. A carrier or other persons named in the contract an interim consignee for the purpose of transmission to the consignee.

iv. The consignee at the destination station in case of contracts stipulated for delivery stores at destination station.

3. Words in the singular include the plural and vice-versa.

4. Words denoting the masculine gender shall be taken to include the female gender and work persons, shall include any company or association or body of individuals, whether incorporated or not.

5. Terms and expressions not herein defined shall have the meanings assigned to them in the India Sale of Goods Act 1930 or the Indian Contract, 1872 or the General Clauses Act 1897 and as amended in respect of all the Acts as the case may be.

6. (a) Parties :The Parties to the contract are the supplier and the purchaser named in the schedule or any other specifically mentioned in the contract.

(b) Address to which communications are to be sent for all purposes of the contract, including arbitration there under, the address of the supplier mentioned in the tender shall be the address to which all communications addressed to the supplier shall be sent, unless the supplier has notified a change by a change by a separate letter containing no other communication and sent by registered post acknowledgement due to the head of the office placing the supply order. The supplier shall be solely responsible for the consequence of an omission to notify a change of address in the manner aforesaid. Any communication or notice on behalf of the purchaser in relation to the contract may be issued to the supplier by Purchase Executive and all such communications and notices may be served on the supplier either by registered post or under certificate of posting or by ordinary post or by hand delivery at the option of such executive.

7. i. The price quoted shall be either FOR place or Railway station of dispatch, FOR destination. Delivery free to the consignee, FOB or CIF as specified in the invitation to the tender. All offers from countries other than Purchaser's country shall quote on FOB and CIF basis.

ii. In all cases the prices quoted must be net per unit shown in the enquiry and must include all packing and delivery where applicable. Refunds on account of returnable packages (if any) are to be separately specified. The price should show separately the Foreign Exchange element and the Rupee element for stores to be imported. Sales Tax shall be shown separately and whether it is State Sales Tax or Central Sales Tax. If no mention is made about Sales Tax, it will be assumed to be included in the price quoted.

The prices should be included of Excise, or excise duty should be separately mentioned. In case where price is quoted inclusive of excise duty, the rate of quantum of the same should be separately indicated. In case of contracts providing for free delivery to the consignee, octroi charges shall be included where leviable.

iii. The price must be stated separately for each item on unit basis.

iv. When quotations are made for units other than those specified in the enquiry, the relationships should be stated.

v. The prices quoted must be firm and the offers made must remain open for at least Six months from the date of submitting quotations unless otherwise specified.

vi. Tender must invariably be submitted along with illustrated literature giving complete and detailed specifications, particulars etc. of the main unit and of the standard accessories to be supplied with the stores.

vii. Tender must clearly specify their recommended spare parts that will be supplied along with the main unit and item wise prices of the spares parts, also what are fast moving, medium moving, slow moving and insurance spares and the period up to which they are likely to last.

viii. Printed terms and conditions of the tendering firms shall not be considered as forming part of their tender. In case the terms and conditions of contract applicable to this invitation to tender are not acceptable to the tendering firms, they should clearly specify deviations there from in their tender.

ix. Typed quotations should be submitted. Those containing erasures and over-writings are liable to be rejected. Any corrections made in the tenders must be initialled by the tenderers, failing which their tenders will not be considered.

x. Insurance arrangement will be made as per instructions being issued from time to time by the Materials Management Division of Coal India Limited and / or its subsidiary companies.

8. i. Samples of each item, if considered necessary, should be submitted simultaneously by the contractor for inspection by Inspector / Inspectors unless the articles under tender are of considerable bulk

in which case separate arrangement will be made for inspection of the articles offered while considering the quotation.

ii. All samples required for inspection or test shall be supplied by the successful tenderer free of cost.

iii. All samples must be clearly labelled with the tenderer's name, this offer enquiry number and the last date of opening of tender.

9. a) Subletting and Assignment: The supplier shall not save with the previous consent in writing of the purchaser, sublet, transfer, assign the contract or any part thereof or interest therein or benefit or advantage thereof in a manner whatsoever. Provided nevertheless that any such consent shall not relieve the supplier from any obligation, duty or responsibility under the contract.

b) Change in a Firm:

i. Where the supplier is a partnership firm, a new partner shall not be introduced in the firm except with the previous consent in writing of the purchaser (which may be granted only as an exception) of a written undertaking by the new partner to perform the contract and accept as liabilities incurred by the firm under the contract prior to the date of such undertaking.

ii. On the death or retirement of any partner of the supplier firm before complete performance of the contract the purchaser may at his option cancel the contract in such case the supplier shall have no claim whatsoever for compensation against the purchase.

iii. If the contract is not determined as provided in the sub-clause 1.ii above notwithstanding the retirement of a partner from the firm, he shall continue to be liable under the contract for acts of the firm until a copy of the public notice given by him under Section 32 of the Partnership Act has been sent by him to the purchaser by registered post acknowledgement due.

10. (a) Consequence of Breach: Should the supplier or a partner in the supplier firm commit breach of either of the conditions (a) or (b) of this sub-clause, it shall be lawful of the purchaser to cancel the contract and purchase or authorise the purchaser of the stores at the risk and cost of the supplier and in that event the provisions of clause 20 shall as far as applicable shall apply.

(b) The decision of Coal India Ltd. and/or its subsidiary companies as to any matter or thing concerning or arising out of this sub-clause or any question whether the supplier or any partner of the supplier firm has committed a breach of any of the conditions in this sub-clause contained shall be final and binding on the supplier.

11. Use of raw materials secured with Government assistance:

a. Where any raw material for the execution of the contract is procured with the assistance of CIL and or its subsidiary companies by purchase or under arrangement made or permit, license, quota certificate or release order issued by or on behalf of or under authority or by any officer empowered in that behalf by law, or is issued from government stock and where advance payments are made to the supplier to enable him to purchase such raw materials for the execution of the contract, the supplier.

I. Shall hold such material as trustee of Coal India Limited and / or its subsidiary companies.

II. Shall use such material economically and solely for the purpose of the contract.

III. Shall not dispose of the same without the previous permission in writing of the purchaser; and

IV. Shall tender due account of such material and return to the purchaser at such place as the purchaser may direct all surplus or unserviceable material that may be left after the completion of the contract or its termination for any reason whatsoever. On returning such material, the supplier shall be entitled to such price thereof as the purchaser may fix having regarding the condition of such material.

b. Where the contract is terminated due to any default on the part of the supplier, the supplier shall pay all transport charges incurred for returning any material up to such destination as may be determined by CIL and / or its subsidiary companies whose decision shall be final.

c. If the supplier commits breach of any of the conditions in this clause specified, he shall, without prejudice to any other liability, penal or otherwise, be liable to account to CIL and or its subsidiary companies all money, advantages of profits accruing from or which in the usual course would have accrued to him by reasons of such breach.

d. Where the stores manufactured or fabricated by the supplier out of the materials arranged or procured by or on behalf of Coal India Limited and / or its subsidiary companies are rejected the supplier shall, without prejudice to any other right or remedy of the Government, pay to the Government on demand the cost price or market value of all such materials whichever is greater.

12. The tenderers in case of imported items, shall clearly mention in the question that in the event of the supply order being placed with them, they shall arrange for supply within a reasonable period of all necessary maintenance tools and spares parts that may be required from time to time during the normal life of the machines, on a continuous basis and at a price not in excess of the landed cost at their premises plus a stated percentage differential (such a differential should be indicated) and proper servicing of the main unit supplied by them as and when required. In case there is a Rate Contract with the DGS&D supply be made at the RC rates.

13. For orders placed directly on overseas suppliers, the tenderers should separately indicate whether their prices quoted include any commission for the manufacturer's agents in India and the amount of remuneration for the agent included in the quoted price. The Price shall include:

- a. The service that will be rendered by them as manufacturer's agent
- b. The name and address of agents, if any, in India, and
- c. The agency commission or remuneration or freight in case FOR prices are accepted will be paid in Rupees in India

14. On acceptance of the tender, a formal acceptance of tender or supply order will invariably be issued. Advance intimation in writing of acceptance of the tender will be given whenever considered necessary by the said authority. In case advance intimation has been given, the formal acceptance of tender of supply order shall follow in due course, but immediate action towards execution of supply order shall be taken on receipt of the advance intimation.

15. Inspection and Rejection: Generally the stores shall be of the best quality and workmanship and comply with the contract or supply order in all respect. The stores supplied shall be in accordance with specification unless any deviation is authorised and specified and specified in the contract or supply order or any amendment thereof.

a) Facilities for Test and Examination: The supplier shall, at his own expenses, afford to the Inspector all responsible facilities and such accommodation as may be necessary for satisfying it, that the stores are being and/or have been manufactured in accordance with particulars. The Inspector shall have full and free access at any time during the execution of the contract to the suppliers work for the purpose aforesaid, and he may require the supplier.

b) Cost of Test: The supplier shall provide without any extra charge, all materials, tools, labour and assistance of every kind which the inspector may demand from him for any test, and examination, other than special or independent test, which he shall require to be made on the supplier's premises and the supplier shall bear and pay all costs attendant thereon. If the supplier fails to comply with the conditions aforesaid, the Inspector shall in consultation with the purchaser, be entitled to remove for test and examination all or any of the stores manufactured by the supplier to any premises other than his (suppliers) and in all such cases the supplier bear the cost of transport and/or carrying out such tests elsewhere. A certificate in writing of the Inspector that the supplier has failed to provide the facilities and the means, for test and examination shall be final.

c) Delivery of Stores for Test: The supplier shall also provide and deliver the test free of charge, at such place other than his premises as the Inspector may specify, such materials or stores as he may require.

d) Liability for Costs of Laboratory Test : In the event of rejection of stores or any part thereof by the Inspector in consequence of the sample thereof, which removed to the laboratory or other place of test, being found on test to be not in conformity with the contract or in the event of the failure of the supplier for any reason to deliver the stores passed on test within the stipulated period, the supplier shall, on demand pay to the purchaser all costs incurred in the Inspection and/or test cost of the test shall be assessed at the rate charged by the laboratory to provide persons for similar work.

e) Method of Testing: The Inspector shall have the right to put all the stores or materials forming part of the same or any part thereof to such tests as he may think fit and proper. The supplier shall not be entitled to object on any ground whatsoever to the method of testing adopted by the Inspector.

f) Stores Expended in Test: Unless otherwise provided for in the contract, all stores/materials expended in test will be to suppliers account.

g) Inspector – Final Authority and to Certify Performance

i. The Inspector shall have the power: Before any stores or part thereof are submitted for inspection to certify that they cannot be in accordance with the contract owing to the adoption of any unsatisfactory method of manufacturer.

ii. To reject any stores submitted as not being in accordance with the particulars.

iii. To reject the whole of the instalment tendered for inspection, if after inspection of such portion thereof as he may in his discretion think fit, he satisfied that the same is unsatisfactory; and

iv. To mark the rejected stores with a rejection mark so that they may be easily identified if resubmitted.

(h) Consequence of Rejection : If on the stores being rejected by the Inspector or consignee at the destination, the supplier fails to make satisfactory supplies within the stipulated period of delivery, the purchaser shall be at liberty to "

i. Allow the supplier to resubmit the stores, in replacement of those rejected, within a specified time, the suppliers bearing the cost of freight, if any, on such replacement without being entitled to any extra payment on the account; or

ii. Purchase or authorise the purchase of quantity of the stores rejected or so others of a similar description (when stores exactly complying with particulars opinion of the purchase executive which shall be final, readily available) without notice to the supplier's liability as regards the supply of any further installment due under the contract; or

iii. Cancel the contract and purchase or authorise the purchase of the stores or other's of a similar description (when stores exactly complying with particulars are not in the opinion of the purchaser, which shall be final readily available) at the risk and cost of the supplier. In the event of action being taken under sub-clause (ii) above or this sub-clause in the provisions of clause 20 shall apply as far as applicable.

(i) Inspector's Decision as to Rejection Final: The Inspector's decision as regards the rejection shall be final and binding on the supplier.

(j) Where under a contract, the price payable is fixed on FOR station of despatch basis, the supplier shall, if the stores are rejected at destination by the consignee, be liable in addition to other liabilities to reimburse to the purchaser the freight paid by the purchaser.

(k) Notification of Result of Inspection: Unless otherwise provided in the specification or schedule, the examination of the stores will be made as soon as practicable after the same have been submitted for inspection and the result of the examination shall be notified to the supplier.

(l) Marking of Stores: The supplier shall if so required, at his own expense mark or permit the Inspector to mark all the approved stores with a recognised Government or purchaser's mark. The stores which cannot be so marked shall, if so required by the Inspector, be packed in suitable package or cases each of which shall be sealed and marked with such mark.

(m) Removal of Rejection

i. Any stores submitted for inspection at a place other than the premises of the supplier and rejected shall be removed by the supplier subject as hereinafter provided within 14 days of the date of receipt of intimation of such rejection. If it is proved that letter containing such intimation is addressed and posted to him at the address mentioned in the schedule, it will be deemed to have been served on the supplier at the time when such letter would in the course of ordinary post reach the supplier. It shall be competent for the Inspector to call upon the supplier to remove what he considers to be dangerous, infected or perishable stores within 48 hours of the receipt of such intimation.

ii. Such rejected stores shall under all circumstances lie at the risk of the supplier for the moment such rejection and if such stores are not removed by the supplier within the period aforementioned, the Inspector/Purchaser may either return the same to the supplier at his risk and cost a public tariff rate by such mode of transport as the purchaser or Inspector may select, or dispose of such stores at the supplier's risk on his account and retain in such portion of the proceeds as may be necessary to cover any expense incurred in connection with such disposal. The purchaser shall also be entitled to recover handling and storage charges for the period during which the rejected stores are not removed.

(n) Inspection Notes: On the stores being found acceptable by the Inspector, he shall furnish the supplier with necessary copies of inspection note duly completed, for being attached to the supplier's bill thereof.

16. Packing and Transport

(a) It shall be the responsibility of the successful tenderers to arrange for the stores being sufficiently and properly packed for transport by Rail, Road or Sea as the case may be so as to their being free from loss or injury on arrival at destination. The packing of the stores shall be done at the expense of the successful tenderer.

(b) The successful tenderer is responsible for obtaining a clear receipt from the transport authorities specifying the goods despatched. He will not book any consignment on a "said to contain" basis. If he does so, he does it on his own responsibility. Bharat Coking coal Ltd shall pay for only such stores as are actually received by them in accordance with the contract.

(c) All packing cases, containers, packing and other similar materials shall be supplied free by the successful tenderer and shall not be returned unless otherwise specified in the contract/supply order.

(d) Packages must be so marked that identification is made easy. Packages will be stamped with identification marks both outside the packages as well as on the contents inside. Packages containing articles liable to be broken by rough handling like glass or machinery made of cast iron will be marked with cautionary works like 'Fragile', 'Handle with care'. Weight of each package will be marked on the package.

(e) A complete list of contents in each package called the packing list will be prepared and one copy will be packed in the package itself and another copy will be forwarded to the consignee in advance.

17. Delivery: The time for and the date of delivery of the stores stipulated in the 'Purchase Order' shall be deemed to be the essence of the contract and delivery of the stores must be completed by the date specified.

18. If the execution of the contract / supply order is delayed beyond the period stipulated in the contract / supply order as a result of outbreak of hostilities, declaration of any embargo or blockage, or fire, flood, acts of nature or any other contingency beyond the suppliers' control due to act of God then CIL or its subsidiary Companies may allow such additional time by extending the delivery period, as it considers to be justified by the circumstances of the case and its decision shall be final. If and when additional time is granted by the CIL and its subsidiary companies, the contract / supply order shall be read and understood as if it had contained from its inception the delivery date as extended.

19. The supplier shall allow reasonable facilities and free access to his works and records to the Inspector, Progress Officer or such other Officer nominated for the purpose. Inspector of stores, i.e. supplies made by the successful tenderer against the supply order mentioned at (15) above, shall be carried out by the Inspector / Consignee at the Colliery site/ stores or by the Inspecting Wing (inclusive of all its branch officer) of the DGS&D, New Delhi or any other agency as may be specified in the supply order. Where necessary, inspection may be carried out at the supplier's premises.

20. Coal India Ltd and / or its subsidiary companies do not bind itself to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of the tender or portion of the quantity offered and the tenderer shall supply the same at the rate quoted.

21. The supplier shall at all times indemnify CIL and its subsidiary companies against all claims which may be made in respect of the supplies for infringement of any right protected by patent, Registration of Design, or Trade Mark, provided that in the event of any claim in respect of alleged breach of Letter Patent, Registered Design, or Trade Mark being made against CIL and / or its subsidiary companies, the said authority shall notify the supplier of the same and the supplier shall be at liberty at his own expense to settle any dispute or to conduct any litigation that may rise there from

22. Carrying vessels for Imported Items: In case of machinery imported from abroad, it is preferable that shipment should be affected in Indian Vessels, wherever possible. Supplies will however not be delayed on this account.

23. Freight: The stores shall be dispatched at Public tariff rates in the case of FOR station of dispatch contract and the stores shall be booked at full wagon rates whenever available and by the most economical route or by the most economical tariff available at the time of dispatch as the case may be. Failure to do so will render the supplier liable for any avoidable expenditure causes to the purchaser. Where alternative routes exist, CIL and or its subsidiary companies shall, if called upon also to do indicate the most economical route available or name the authority whose advice in the matter should be taken and acted upon. If any advice of any such authority is sought his decision or advice in the matter shall be final and binding on the supplier.

24. Passing of Property: Property in the stores shall not pass to the purchaser unless and until the stores have been delivered to the consignee or interim consignee as the case may be in terms of the contract.

25. Laws Governing the Contract.

(a) This contract shall be governed by the Laws of India for the time being in force.

(b) Irrespective of the place of delivery, the place of performance of place of payment under the contract, the contract shall be deemed to have been made at the place from which the acceptance of tender or supply order has been issued.

(c) Jurisdiction of Courts: The courts of the place from the acceptance of tender has been issued shall alone have Jurisdiction to decide any dispute arising out of or in respect of the contract.

(d) Marking of Stores: The marking of the stores must comply with the requirement of the law relating to merchandise marks for the time being in force in India.

26. Corrupt Practices:

(a) The supplier shall not offer or give or agree to give to any person in the employment of the purchaser or working under the orders of Coal India Ltd. and/or its subsidiary companies any gift or consideration of any kind as an inducement or reward for going or forbearing to do or for having done or forborne to do any act in relating to the obtaining or execution of the contract or any other contract with the purchaser or for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other with the Purchaser. Any breach of the aforesaid condition by the supplier or any one employed by him or acting on his behalf (whether with or without the knowledge of the supplier) or the Commission of any offence by the supplier or by any one employed by him or acting on the behalf under Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1947 and any amendments thereto or any other Act enacted for the prevention of corruption by Public Servants shall entitle Coal India Limited and or its subsidiary companies to cancel the contract and all or any other contract with the supplier and to recover from the supplier the amount of any loss arising from such cancellation in accordance with the provisions of Clause 20.

(b) Any dispute or difference in respect of either the interpretation effect or application of the above condition or of the amount recoverable, the re-under by the purchaser from the supplier shall be decided by Coal India Limited and its subsidiary companies whose decision shall be final and binding on the supplier.

27. Insolvency and Breach of Contract

a) Coal India Limited and or its subsidiary companies may at any time by notice in writing, similarly determine the contract without compensation to the supplier in any of the following events that is to say – If the supplier being an individual or if a firm any partner thereof shall at any time be adjudged insolvent or shall have a receiving order or order of administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any arrangements or composition with his creditors or suspend payment or if the firm be dissolved under the Partnership Act.

b) If the supplier being a company is wound up voluntarily by the order of a court or a receiver, Liquidating Manager on behalf of the Debenture-Holders is appointed or circumstances shall have arisen which entitles the court or Debenture-Holders to appoint a Receiver, Liquidator or Manager.

c) If the supplier commits any breach of the contract not herein specifically provided for – Provided always that such determination shall not prejudice any right of action or remedy which shall have accrued or shall accrue thereafter to the purchaser and provided also the supplier shall be liable to pay to the purchaser for any extra expenditure he is thereby put to and the supplier shall under no circumstances be entitled to any gain on repurchase.

28. Progress Report

a) The supplier shall from time to time render such reports concerning the progress of the contract and or supply of the stores in such form as may be required.

b) The submission, receipt and acceptance of such reports shall not prejudice the right of the purchaser under the contract, nor shall operate an estoppel against the purchaser merely by reason of the fact that he has not taken notice of or objected to any information contained in such report.

29. All disputes arising out of this contract shall be under the jurisdiction of Dhanbad /Jharkhand Court only and as per the "Law of the Land".

Annexure A4

E-TENDER NO : BCCL/PUR/15214/15-18/40T CRANE/17-18/74

DATE - 03.02.2018

Annexure - A4

Mandate Form for Electronic Fund Transfer / Internet Banking Payment

1	VENDOR / SUPPLIER / CONTRACTOR / CUSTOMER'S NAME & ADDRESS : (With Telephone No. & Fax No.)	TIL LIMITED 1, TARATOLLA ROAD, GARDEN REACH KOLKATA - 700 024 TELE : 033-6633-2151, FAX : 033-2469373/2143
2	PARTICULARS OF BANK ACCOUNT :	
	A. BANK NAME :	BANK OF INDIA
	B. BRANCH NAME (including RTGS Code)	KOLKATA LARGE CORPORATE BRANCH RTGS CODE BR00004044
	ADDRESS :	S. B. T. M. SARANI KOLKATA 700 001
	C. 9-DIGIT CODE NUMBER OF THE BANK & BRANCH (As appearing on MICR Cheque issued on the Bank) Or 5-DIGIT Code Number of Bank	700013026
	D. ACCOUNT TYPE (S B. Account / Current Account or Cash Credit with Code 1011/12)	CASH CREDIT
	E. LEDGER NO. LEDGER FOLIO NUMBER	
	F. ACCOUNT NUMBER (CORE BANKING) & STYLE OF ACCOUNT (As appearing on the Cheque Book)	40030100310030
3.	DATE OF EFFECT :	

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, we would not hold the user institution responsible. We have read the option invitation letter and agree to discharge responsibility expected of me as a participant under the scheme. Any bank charges levied by the bank of such e-transfer shall be borne by us.

Date: 03/02/2018

TIL Limited

S. B. T. M. Sarani
Authorized Signatories
Signature of the Customer/
Vendor/Supplier/Contractor

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

[Signature]
152/163
Senior Manager

Signature of the Authorized
Officer from the Bank

[Handwritten mark]

[Handwritten mark]