

नॉर्दर्न कोलफील्ड्स लिमिटेड

(मिनिरात्र कंपनी)

(कोल इण्डिया लिमिटेड की अनुषंगी कंपनी)



Northern Coalfields Limited

(A Miniratna Company)

(A subsidiary of Coal India Limited)

सामग्री प्रबन्धक विभाग / Materials Management Department



CIN- U10102MP1985G01003160

An ISO: 9001, ISO: 14001 & OHSAS: 18001 Certified Company

पोस्ट- सिंगरौली कोलियरी, जिला- सिंगरौली, म.प्र., पिन 486889/ Post- Singrauli Colliery, Distt- Singrauli, M.P. PIN-486889

Phone: 07805- 266388, (FAX) 266640 email: gmmm@ncl.gov.in website : www.nclcil.in

FORMAL ORDER

Ref. No. 631729049 / 515A1162

Dated: 09.10.2017

M/s. Rajat Associates
69, Shivaji Complex,
Vindhyanagar,
Singrauli (M.P) – 486 885

Phone No. 7771008908
E-mail: rajkumar@rajatassociates.net
PCC: By Regd. Post
VENDOR CODE: R-0068
Type of Vendor: General

Sub: Supply of Workshop Equipment.

Ref:

1. Our Open Tender Enquiry No. NCL/SGR/MMD/515A1162/108 dated 16.11.2015,(Tender ID:2015_NCL_26555_1) opened on 15.12.2015.
2. Your Offer submitted online (Bid ID: 70645 dated 13.12.2015) & subsequent Shortfall / confirmatory documents submitted online.
3. Your Letter No. RAS/ACIPL/NCL-HQ/2016/C/02 dated 16.08.2016, RAS/ACIPL/NCL-HQ/2016/C/06 dated 01.12.2016 and RAS/SL/NCL-HQ/2017/C/03 dated 04.08.2017 through e – mail dated 05.08.2017.

Dear Sirs,

With reference to the above, we hereby place our formal Supply Order on you for supply of materials as per details given below. The supply shall be governed by the specifications, prices, terms & conditions mentioned hereunder and also unless otherwise specified as per General Terms & Conditions enclosed with the subject NIT.

Sl.No.	Description of Item	No.of Qty	Unit basic Price (Rs)	Extended Value(in Rs.)
1.0	Hydraulic Jack of Capacity 50 ton (for M.P.Project)	2.00	102209.00	204418.00
2.0	Hydraulic Jack of Capacity 50 ton (for U.P.Project)	1.00	102209.00	102209.00
3.0	Hydraulic Jack of Capacity 100 ton (for M.P.Project)	1.00	181330.00	181330.00
4.0	Hydraulic Jack of Capacity 100 ton (for U.P.Project)	1.00	181330.00	181330.00
5.0	Hydraulic bearing puller Kit (For U.P. Project)	2.00	501814.00	1003628.00
6.0	Hydraulic Bearing Puller (For U.P. Project)	1.00	400036.00	400036.00

Make: ENERPAC

Total Rs.20,72,951.00

TOTAL BASIC ORDER VALUE: ₹ 20,72,951.00 (Rupees Twenty Lakhs Seventy Two Thousand Nine Hundred Fifty One only)

GST would be applicable as per the relevant clause mentioned in this Supply Order.

Terms & Conditions

1. BASIS OF PRICE: The above Prices are inclusive of Packing , Forwarding, Freight and Transit Risk insurance charges etc. on FOR Destination basis. The prices shall remain firm till completion of supplies.

2. Goods & Services Tax (GST):

- a) IGST would be paid extra at actuals, as legally leviable at the time of supply, present rate is 18 % for supplies in UP project and SGST @ 9 % & CGST @ 9 % for supplies in MP projects.
- b) You will submit the invoice as per GST rules to avail Input Tax Credit, if any, which shall be certified by your Auditor at the time of supply.
- c) You shall submit certificate from practicing Chartered Accountant having Certificate of Practice and valid Membership Number of ICAI that you have passed/will pass the benefit, if any which arise in your input tax credit due to implementation of GST as per provision of section 171 of CGST Act.
- d) GST Registration Number of NCL in case of supply for MP is 23AABCN4884HE1ZE and for UP is 09AABCN4884H1Z4. Your bills should bear this number to enable NCL to claim INPUT TAX CREDIT.
- e) You will give an undertaking on invoice or as separate Annexure along with invoice that Invoice/ applicable GST returns has been/will be uploaded in GST Portal within due time as prescribed in CGST Act and CGST, SGST or IGST has been deposited as per the provision of GST Act and rules thereon.
- f) You shall ensure timely submission of correct invoice(s), **as per GST rules/ regulation**, with all required supporting document(s) within a period specified in Contract to enable NCL to avail input credit of **GST (CGST & SGST or IGST)**. Further, returns and details required to be filled under GST laws & rules should be timely filed by you with requisite details.

If input tax credit is not available to NCL for any reason not attributable to NCL, then NCL shall not be obligated or liable to pay or reimburse **GST (CGST & SGST or IGST)** claimed in the invoice(s) and shall be entitled to deduct/ setoff /recover such **GST (CGST & SGST or IGST)** together with all penalties and interest, if any, against any amounts paid or payable by NCL to you.

Further in this case, NCL reserve the right to upload name and detail of such defaulter on NCL website and may also consider for giving holiday/debarring from participating tenders.

- g) Where NCL has the obligation to discharge **GST (CGST & SGST or IGST)** liability under reverse charge mechanism and NCL has paid or is /liable to pay **GST (CGST & SGST or IGST)** to the Government on which interest or penalties becomes payable as per GST laws for any reason which is not attributable to NCL or ITC with respect to such payments is not available to NCL for any reason which is not attributable to NCL, then NCL reserve the right to deduct / recover such amounts against any amounts paid or payable by NCL to you.

- h) Amount of Statutory levies like CGST, SGST or IGST will be released when the same will appear in GSTR-2A of NCL in the common portal of GST and after submission of documentary evidence deposition of GST Taxes and filing of GST Returns.
- i) E-way bill - to be arranged by you.

In case of any increase in taxes and duties after expiry of the scheduled delivery period, the increase will be to supplier's account and in case there is any decrease, the same shall be passed on to NCL.

3. DELIVERY PERIOD: Within 90 days from the date of placement of Supply order.

4. CONSIGNEE:

- i) Depot officer, Regional stores, NCL-Block B project, P.O.Gorbi, Dist Singrauli.(item sl.no.1- 1no & item sl.no 3. – 1no.)
- ii) Depot officer, Regional stores, NCL-Amlohri project, P.O. Amlohri project, Dist Singrauli.(item sl.no. 1 – 1no)
- iii) Depot officer, Regional stores, NCL-Bina project, P.O.Bina Colliery, Dist. Sonebhadra (U.P).(items sl.no. 2,4,5 & 6 qty 1,1,2 & 1 respectively)

5. SECURITY DEPOSIT: You are advised to submit security money for Rs. 2,44,609.00 (Rupees Two Lakhs Forty Four Thousand Six Hundred Nine only) within 15 days from the date of receipt of Supply Order. The security deposit should be submitted in the form of Bank Demand Draft payable at SBI, Morwa Branch (Code 3767), Singrauli, MP /or at any bank located at Morwa, Singrauli, MP / or in the form of Bank Guarantee drawn on any nationalized bank / Scheduled Bank in a prescribed Format (i.e. as per Annexure J of NIT) The validity of BG for security deposit will be for a period of three months beyond the expiry of delivery period. If you fail to deposit the security deposit within 15 (fifteen) days from the date of receipt of order, the order shall be cancelled and the case shall be processed to order elsewhere and your performance shall be kept recorded for future dealings. The security deposit shall be refunded within thirty days of satisfactory execution of the contract on your request. For contractual failure, the security money shall be forfeited.

In case, Security Deposit is submitted in the form of Bank Guarantee, the bidders may please note the following:

- i.The Bank Guarantees should be issued through Structured Financial Messaging System.
- ii.Beneficiary bank / branch IFSC Code: ICICI0003529 should be mentioned.
- iii.Beneficiary Bank / Branch Name & address should be mentioned as ICICI Bank Ltd., Singrauli Branch, Plot No. 86, Opp. Post Office, Ward No. 3, Morwa, Tehsil Singrauli, Madhya Pradesh – 486889.
- iv.In case of BG issued by ICICI Bank, following text should be incorporated in BG:
“We shall be liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if you serve upon us a written claim or demand on or before at ICICI Bank Ltd., Plot No.86, Opp. Post-Office, Ward No. 3, Morwa, Tehsil Singrauli, Madhya Pradesh-486889.”

6. TERMS OF PAYMENTS: 80% payment shall be released within 21 days of receipt of the EQUIPMENT by consignee and receipt and acceptance of Performance Bank guarantee as per clause no:16, Balance 20% payment shall be released within 21 days of successful installation, commissioning and final acceptance of the equipment at site upon presentation of a certificate from the project head or his authorized representative, to the effect that the equipment has been commissioned to their entire satisfaction.

The payment will be made by “Electronic Fund Transfer” (EFT) or e-payment through RTGS for which you are requested to indicate your EFT A/C no., Name of Bank, Branch, RTGS Code and other relevant details in your invoice for facilitating payment through EFT.

7. PAYING AUTHORITY: AFM, NCL, Block B/ Amlohri/Bina Projects.

8. BANK DETAILS OF FIRM:

a	Account Name/ Beneficiary Name	Rajat Associates
b	Banker's Name	Union Bank of India
c	Branch	Shaktinagar
d	Address, City/Town, District, State	Sangam Shopping Complex, Post - Shaktinagar, Distt - Sonbhadra (Uttar Pradesh) - 231222
e	Account type	Cash Credit
f	IFSC Code	UBIN 0541486
g	Account Number	414805040000222

9. SUBMISSION OF BILLS: 100% bill with taxes & duties stamped and pre-receipted shall be submitted in triplicate to the Paying Authority with following documents:-

- i.) Receipted Challan/ Consignment Note
- ii.) Warranty/Guarantee Certificate.
- iii.) Lowest Price Certificate.
- iv.) Any other documents specified in the order.

A set of above documents should be submitted to the consignee and to this office as well.

10. PACKING: Packing of all the materials should conform to the requirements of the carriers. The consignment should be securely packed & marked as per standard Trade Practices/BIS norms to withstand the rigorous of transport to prevent any loss/damage or pilferage in transit and ensure safe arrival at destination.

11. MODE OF DESPATCH: By Road. Safe arrival of the materials at the Consignee's end will be the responsibility of the Supplier. All consignments should be booked to Consignee & not to Selves.

12. WARRANTY/GUARANTEE: The supplier shall give a warranty for satisfactory performance of the supplied materials for a period of 12 months from the date of actual use or 18 months from the date of receipt and acceptance at consignee's end whichever is earlier. The tenderer shall be responsible for any defect that may, under the condition provided for by the contract and under proper use, arise due to faulty materials, design or workmanship and such goods shall be replaced by new one by supplier 100% free of cost without any extra cost to Northern Coalfields Ltd. The new goods should be supplied on FOR destination basis free of cost.

Warranty replacement should be completed within a reasonable period maximum within one month from the date of claim free of cost up to ultimate consignee's end.

All cases of warranty replacements will be decided on the basis of joint inspection of the failed goods held between the user's representative and the supplier's representative.

13. PERFORMANCE BANK GUARANTEE: The supplier shall have to submit the Performance Bank Guarantee for Rs. 2,44,609.00 (Rupees Two Lakhs Forty Four Thousand Six Hundred Nine only) to cover both satisfactory performance and warrantee. The performance guarantee should be in the form of a Bank Guarantee in prescribed format valid for 18 months from the date of receipt and acceptance of the materials at site and the same

shall be either released, if no claim is pending or extended thereafter, as deemed fit. In case, Security Money has been submitted in the form of Bank Guarantee, the same shall be converted into Performance bank guarantee (PBG) provided the validity is 18 months from the date of receipt and acceptance of materials at site.

14. INSPECTION: Materials under supply shall be of the best quality and workmanship and shall be in accordance with the specification laid down in the supply order. Final inspection will be carried out after receipt of material at consignee's end by authorized representative of GM(Excv) NCL.

15. 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. GST will be charged / levied on Risk Purchase as per the provision of GST Act Rule thereon.

16. LIQUIDATED DAMAGES:

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, NCL should have the right:-

- a) To recover from the successful tenderer as agreed liquidated damages, a sum of 0.5 % (half percent) of the price of any stores which the successful tenderer has not been able to supply as aforesaid for each week or part of a week during which the delivery of such stores may be in arrears limited to 10% (Ten percent). Wherever felt necessary, the limit of 10% can be increased to 15% at the discretion of Head of the Materials management Division of NCL.
- b) Or to purchase elsewhere, after due notice to the successful tenderer 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, NCL shall be entitled to recover such sum by appropriating in part or in whole by deducting any sum or which at any time thereafter may become due to the successful tenderer in this or any contract should this sum be not sufficient to cover the full amount recoverable, the successful tenderer shall pay NCL on demand the remaining balance. The 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.

17. FORCE MAJEURE CONDITIONS: If the execution of the Contract/supply order is delayed beyond the period stipulated in the supply order, as a result of outbreak of hostilities, declaration of an embargo or blockade or fire, flood, acts of nature or any other contingency beyond the suppliers control due to act of God, then NCL may allow such additional time by extending the delivery period as considered to be justified by the circumstances of the case and its decision will be final. If additional time is granted by NCL, the supply order shall be read and understood as if it had contained from its inception the delivery date as extended. Power Failure / Cuts cannot be taken as Force Majeure Conditions.

The supplier 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, NCL will reserve the right to cancel the contract, and provisions governing termination of contract as stated in the bid documents will apply.

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

18. PRICE FALL CLAUSE:

The price charged for the stores supplied against this tender by you shall in no event exceed the lowest price at which you sell or offer to sell the stores of identical description to any other party during the said period.

If the supplier at any time during the period of contract concluded against this tender reduces the sale price, sells or offers to sell such stores to any other organization at a price lower than the price chargeable under the contract, the supplier shall forthwith notify such reduction of sale price to the undersigned and the price payable under the contract for stores supplied after the date of coming in force of such reduction in sale price, shall stand correspondingly reduced. The above stipulation will not however apply to exports by the contract holder.

19. LOWEST PRICE CERTIFICATE:

The supplier shall certify that prices charged by us is the lowest and is the same as applicable to other Government Departments/ Undertakings/ Other Organisations

The supplier shall also certify that the rates charged are not higher than rates charged by us for same items to other Customers.

20. JURISDICTION OF COURT:

Any dispute arising out of or in respect of the contract will be subject to the Jurisdiction of Singrauli Court Only.

Apart from the above terms and conditions the supplies will also be governed by the other conditions of NIT and also "General Terms & Conditions of Supply of Stores" issued along with our NIT.

You are requested to kindly acknowledge receipt and acceptance of order within 15 days from the date of issue of order. In case no reply is received, it will be presumed that the order has been accepted by you.

Yours faithfully,

(D Dhanabalan)
Sr. Manager (MM)

(S.K. Agrawal)
Chief Manager (MM)

Copy to:

1. The Chief Vigilance Officer, NCL, Singrauli
 2. GM (MM) Purchase - HOD / GM (Stores) / GM (Excav) / GM (Finance) Incharge , NCL HQ, Singrauli.
 3. GM, NCL, Block B / Bina/ Amlohri projects.
 4. Consignee: Depot officer, Regional stores, NCL, Block B / Bina/ Amlohri projects.
 5. Paying Authority: AFM, NCL, Block B/ Amlohri/Bina Projects.
 6. The General Manager (MM), CCL / BCCL / ECL / SECL / WCL / MCL.
 7. M/s Actuant India Private Limited, No 10, Sadashivanagar, Bangalore-560080, India
- This is issued against Indent No. (i)Block B/nil dtd:19.09.2013 (ii)KSL/055 dtd:21.11.2013 (iii) KSL/056 dtd:21.11.2013 (iv) Block B/nil dtd:19.09.2013 (v) KSL/057 dtd:21.11.2013 (vi) KSL/059 dtd:21.11.2013 (vii) KSL/058 dtd:21.11.2013(viii)AML/EI-122 dtd:30.08.2012 & Indent Registration No. 315A1162 dated 18.03.2015.

B.C. No.

BC Details	Date	Total Budget
NCL/HQ / C&B /Capital/Other P&M_Excavation /2017-18/01	05.10.2017	Rs.24,46,082.18

F.C. No.

FC Details	Date	Total Budget
NCL/HQ/FC/2017-18/Capital/ Other P&M_Excavation /01	05.10.2017	Rs.24,46,082.18

(D Dhanabalan)
Sr. Manager (MM)

(S..K. Agrawal)
Chief Manager (MM)

Technical Specification:

Description of Item *	Specification Parameter *
<p>Hydraulic Jack of Capacity 50 ton</p>	<p>Introduction: These Technical Specifications identify the technical requirements of the Goods and Services which are the subject of this supply order. The Technical Specifications are presented in following parts:</p>
	<p>Part – A: Scope of Supply</p>
	<p>Part B. : General Requirements comprising of the following (at point 1 to 8):</p>
	<p>1) Geography and Climatic Conditions</p>
	<p>2) Goods (Equipment and Machinery)</p>
	<p>3) Services</p>
	<p>4) Standards</p>
	<p>5) Bidder's/ Supplier's Responsibility</p>
	<p>6) Spare Parts Provisions</p>
	<p>7) Availability Provisions</p>
	<p>8) Quality Assurance</p>
	<p>PART-C: EQUIPMENT SPECIFICATION:</p>
	<p>Conformity with Specification: The Hydraulic Jacks to be provided shall conform to the requirements defined in these parts. Where stated requirements conflict, the order in which the specifications shall prevail is as follows: Part A followed by Part B followed by Part C</p>
	<p>PART-A : Scope of Supply</p>
<p>A.1 Equipment Package: The supplier is required to provide a complete package of equipment for the supply of ENERPAC Make , Model RAC 506 Hydraulic Jack Capacity 50ton to open cast (surface) coal mining projects: The supplier is required to supply the Equipment Package ; including accessories, consumables, training, installation, commissioning and testing at the coal-mining project.</p>	
<p>A.2 Information & Drawings: The supplier shall provide not less than: Suitably illustrated copies of operating, repair and maintenance manuals for type / model of hydraulic jack and accessories, written in the English language substantially bound in book form. Suitably illustrated copies of detailed spares parts manual for type / model of hydraulic jack and accessories written in the English language substantially bound in book form • 2 copies to project/each project site and • 1 copy along with its soft copy to GM [Excavation]/HOD, NCL, Singrauli • 1 copy along with its soft copy to GM [MM] / HOD, NCL, Singrauli The supplier shall also submit, (in the same number of copies) the data identified in the specifications for hydraulic jack proposed.</p>	

PART-B. General Requirements:

B.1 Goods (Equipment and Machinery)

Detailed specifications of the hydraulic jack to be supplied are given in Part C of this section

In general, all items shall be:

1. New, unused, of the current design [incorporating latest proven features] and not likely to be discontinued or become obsolete in the near future.
2. Designed and constructed to handle without overload & the maximum volumes / rates specified.
3. Designed to facilitate ready access, cleaning, inspection, maintenance and repair of component parts.
4. Designed to facilitate rapid change over of consumable items.

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

Controls and interfaces for the equipment to operate safely and efficiently.

All workmanship and materials shall be of top most quality in every respect.

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

B.2 Services

B.2.1 Supervision of Erection and commissioning:

The supplier shall be responsible for the erection and commissioning of the equipment at site.

The supplier shall depute qualified and competent Engineer(s), to undertake supervision of the entire assembly, erection and commissioning of equipment free of cost for suitable man days including Sundays & Holidays if worked per machine for erection, commissioning and test running, as well as, training and operation and maintenance of the equipment at site.

Commissioning shall include testing of the equipment at maximum rating under mine operating conditions as specified to the satisfaction of the user.

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

B.2.2 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. The machine system, safety and risk assessment
- B. Equipment operation and maintenance
- C. Trouble shooting, localization of fault and their remedies covering:
 1. Mechanical
 2. Hydraulic system

Comprehensive training manuals with clear illustration shall be provided to each participant.

The training courses shall be conducted in both English and Hindi languages as required.

B.3 Standards:

The design, supply, erection, testing and commissioning of all equipment under this contract shall in all respects comply with the requirements of this specification and with appropriate current Indian standards and codes or relevant standards issued by the ISO 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 / SAE / Indian Standards. Such equivalent international standards are to be supported by documentary evidence certifying that offered standards are identical to the corresponding ISO /SAE/ Indian Standards.

The system of units for all measurements shall be the **SYSTÉME INTERNATIONAL D'UNITÉS[SI]**

B.4 Supplier's 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.

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 purchaser's nominated personnel.

B.5 Spare parts Provision**B.5.1.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.

B.5.1.b: Bought-out assemblies and sub-assemblies

The supplier is required to furnish the details of all bought-out items with their make & model, if any 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."List of bought out items along with Certificate NA.

B.6.1.A Give not less than 6 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.6.1.B Immediately following termination provide to the purchaser at no cost manufacturing drawings, material specification and necessary permission to manufacture of the spare parts elsewhere.

B.6.1.C Any change in part number or superceded part number should be informed to the NCL headquarter - Excavation Department, MM Department and the project site wherever the equipment is operating.

B.7. Effect and Duration of guarantee

B.7.1 This guarantee shall become effective on the day on which the Hydraulic Jack is commissioned at site. The issue of the purchaser's acceptance certificate shall evidence commissioning.

B.7.2 This guarantee shall remain effective for twelve (12) months period from the date of issue of acceptance certificate.

B.8 Quality Assurance - The supplier should furnish in detail its quality assurance plan for various stages of manufacture. The quality assurance plan shall comply with an internationally recognized quality assurance standard such as ISO 9001-2008 or latest.

The Supplier shall provide facilities to Purchaser or their authorized representatives for progress inspection during manufacture at their works and furnish all test data available in this regard for quality control, both for bought out items and their own manufactured items. The Purchaser or their agent, when so required by them, shall also be provided with samples of "bought-out" materials for the purposes of undertaking independent tests, which shall be at the expense of the Purchaser.

PART C. EQUIPMENT SPECIFICATION OF ENERPAC Make / Model RAC 506 Hydraulic Jack of capacity 50ton.

C.1 Scope of specification: This specification is intended to cover the technical requirements for the design, manufacture, testing, delivery, on site erection and commissioning of Hydraulic Jack of capacity 50ton.

C.2 Design Criteria :

C.2.1 Single-acting; Spring-return; Solid plunger; Lightweight Aluminium Jack with composite internal bearings to prevent metal-to-metal contact , provided with 1 No. female coupler; Hydraulic Jack shall conform to **ASME Standard B-30.1 & ISO 10100.**

C.2.1.1 Suitable Hard coat finish on all internal surfaces of Jack to resist damage to jack

C.2.1.2 Hardened Steel saddle on plunger for protection against load induced damages

C.2.1.3 Provision of Integral stop-ring to prevent plunger over-travel

C.2.1.4 Suitable Lifting handle on jack shall be provided

C.2.2 Capacity of the Hydraulic Jack (Ram) with suitable Hydraulic pump to lift – 50 Tons
C.2.2.1 Stroke – 150 mm
C.2.2.2 Collapsed Height - 286 mm
C.2.2.3 Material of Jack : Aluminium
C..2.3 Weight – 11.1 Kgs
C.3.1 Two-speed Hydraulic Hand Pump for operating 1 No. Jack; with Steel body construction;chrome plated plunger & wiper ; Vent-free reservoir;Over-pressurization protection; Pump carrying handle
C.3.1.1 Max. Working Pressure – 700 bar
C.3.1.2 Weight – 10.71 Kgs
C.3.2 Glycerine filled pressure gauge with gauge adapter
C.3.2.1 Face Diameter of pressure gauge – 63 mm
C.3.2.2 Maximum Pressure range – 700 bar
C.3.3 Hose - Suitable Heavy duty rubber hose reinforced with two layers of steel wire braids; Male coupler at both ends .
C.3.3.1 Length of Heavy duty rubber hose reinforced with two layers of steel wire braids – 1828.8 mm.
C.3.3.2 Internal diameter of Heavy duty rubber hose reinforced with two layers of steel wire braids – 6.40 mm.
C.3.3.3 Maximum Working Pressure of rubber hose reinforced with two layers of steel wire braids – 701 bar.
D. The general requirement and scope of supply also include the following - (at point i to x) – As per ANNEXURE – 50t Hydraulic Jack.
i. The pump shall be operated from Remote area by suitable capacity High pressure hose.
ii. The capacity of the Reservoir shall be suitable to meet the requirement of the system.
iii. Suitable Capacity Hydraulic Pump , Hoses & connectors etc for effective and safe working of hydraulic jack.
iv. The material of jack should be hard coated Aluminium piston rod & cylinder bore .
v. High pressure Hydraulic Hose with quick coupler, half nut, etc.
vi. First fill of all oils and lubricants
vii. Operation, maintenance & instruction manual and parts catalogue in English & also to be provided in pendrive - 02 nos.
viii. Four quarterly free Service during the warranty period of one year.
ix.Commissioning, testing & training at site on operation, maintenance & safety during operation to our personnel at site.
x. Wooden case to fit all items.
E. General technical requirement - (consisting of following requirements indicated at sl. No. 1 to 8) - As per ANNEXURE – 50t Hydraulic Jack.
1. The list of standard and optional accessories of supplied with Hydraulic Jack RAC 506.
2. Make & detailed techno-commercial literature / leaflet of Hydraulic Jack RAC 506 and accessories confirming the above specification.
3. . Hydraulic Jack should be made & tested as per relevant BIS standard / ISO standard / ASME B-3.1 and safety codes & rules.
5. The detailed technical specification of Hydraulic Jack and accessories about details of material, construction, performance, capacity, weight, dimension etc.
6. The Manufacturer shall submit the test reports of the offered model for capacity, quality, accuracy, dimensions etc. as per requirement / relevant standard at the time of supply of the machines.
7. Authorised agent should submit the agreement copy with their principal / manufacturer related to technical services to be rendered by them.
8. After sales & service facility near Singrauli area.
F. Documents / Informations – As per ANNEXURE – 50t Hydraulic Jack.

	Technical leaflets / brochures containing complete Technical details of Hydraulic Jack, hydraulic hoses , fitting details, hydraulic pump details along with reservoir capacity, Performance, Dimensions, Weights etc.
Hydraulic Jack of Capacity 100 ton	Introduction: These Technical Specifications identify the technical requirements of the Goods and Services which are the subject of this supply order . The Technical Specifications are presented in following parts:
	Part – A: Scope of Supply
	Part B. : General Requirements comprising of the following (at point 1 to 8):
	1) Geography and Climatic Conditions
	2) Goods (Equipment and Machinery)
	3) Services
	4) Standards
	5) Bidder's/ Supplier's Responsibility
	6) Spare Parts Provisions
	7) Availability Provisions
	8) Quality Assurance
	PART-C: EQUIPMENT SPECIFICATION:
	Conformity with Specification: The Hydraulic Jacks to be provided shall conform to the requirements defined in these parts. Where stated requirements conflict, the order in which the specifications shall prevail is as follows: Part A followed by Part B followed by Part C
	PART-A : Scope of Supply A.1 Equipment Package: The supplier is required to provide a complete package of equipment for the supply of ENERPAC Make Model RAC 1006 Hydraulic Jack capacity 100ton to open cast (surface) coal mining projects: The supplier is required to supply the Equipment Package ; including accessories, consumables, training, installation, commissioning and testing at the coal-mining project.
A.2 Information & Drawings: The supplier shall provide not less than: Suitably illustrated copies of operating, repair and maintenance manuals for each type / model of hydraulic jack and accessories, written in the English language substantially bound in book form. Suitably illustrated copies of detailed spares parts manual for each type / model of hydraulic jack and accessories written in the English language substantially bound in book form • 2 copies to project/each project site and • 1 copy along with its soft copy to GM [Excavation]/HOD, NCL, Singrauli • 1 copy along with its soft copy to GM [MM] / HOD, NCL, Singrauli The supplier shall also submit, (in the same number of copies) the data identified in the specifications for each item of hydraulic jack proposed.	

PART-B. General Requirements:

B.1 Goods (Equipment and Machinery)

Detailed specifications of the hydraulic jack to be supplied are given in Part C of this section

In general, all items shall be:

1. New, unused, of the current design [incorporating latest proven features] and not likely to be discontinued or become obsolete in the near future.
2. Designed and constructed to handle without overload & the maximum volumes / rates specified.
3. Designed to facilitate ready access, cleaning, inspection, maintenance and repair of component parts.
4. Designed to facilitate rapid change over of consumable items.

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

Controls and interfaces for the equipment to operate safely and efficiently.

All workmanship and materials shall be of top most quality in every respect.

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

B.2 Services

B.2.1 Supervision of Erection and commissioning:

The supplier shall be responsible for the erection and commissioning of the equipment at site.

The supplier shall depute qualified and competent Engineer(s), to undertake supervision of the entire assembly, erection and commissioning of equipment free of cost for suitable man days including Sundays & Holidays if worked per machine for erection, commissioning and test running, as well as, training and operation and maintenance of the equipment at site.

Commissioning shall include testing of the equipment at maximum rating under mine operating conditions as specified to the satisfaction of the user.

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

B.2.2 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. The machine system, safety and risk assessment
- B. Equipment operation and maintenance
- C. Trouble shooting, localization of fault and their remedies covering:
 1. Mechanical
 2. Hydraulic system

Comprehensive training manuals with clear illustration shall be provided to each participant.

The training courses shall be conducted in both English and Hindi languages as required.

B.3 Standards:

The design, supply, erection, testing and commissioning of all equipment under this contract shall in all respects comply with the requirements of this specification and with appropriate current Indian standards and codes or relevant standards issued by the ISO 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 /SAE/ Indian Standards. Such equivalent international standards are to be supported by documentary evidence certifying that offered standards are identical to the corresponding ISO /SAE/ Indian Standards.

The system of units for all measurements shall be the **SYSTÉME INTERNATIONAL D'UNITÉS[SI]**

B.4 Supplier's 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.

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 purchaser's nominated personnel.

B.5 Spare parts Provision**B.5.1.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.

B.5.1.b: Bought-out assemblies and sub-assemblies

The supplier is required to furnish the details of all bought-out items with their make & model, if any 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." List of bought out items along with Certificate NA.

B.6.1.A Give not less than 6 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.6.1.B Immediately following termination provide to the purchaser at no cost manufacturing drawings, material specification and necessary permission to manufacture of the spare parts elsewhere.

B.6.1.C Any change in part number or superceded part number should be informed to the NCL headquarter - Excavation Department, MM Department and the project site wherever the equipment is operating.

B.7. Effect and Duration of guarantee

B.7.1 This guarantee shall become effective on the day on which the Hydraulic Jack is commissioned at site. The issue of the purchaser's acceptance certificate shall evidence commissioning.

B.7.2 This guarantee shall remain effective for twelve (12) months period from the date of issue of acceptance certificate.

B.8 Quality Assurance - The supplier should furnish in detail its quality assurance plan for various stages of manufacture. The quality assurance plan shall comply with an internationally recognized quality assurance standard such as ISO 9001-2008 or latest.

The Supplier shall provide facilities to Purchaser or their authorized representatives for progress inspection during manufacture at their works and furnish all test data available in this regard for quality control, both for bought out items and their own manufactured items. The Purchaser or their agent, when so required by them, shall also be provided with samples of "bought-out" materials for the purposes of undertaking independent tests, which shall be at the expense of the Purchaser.

PART C. EQUIPMENT SPECIFICATION OF ENERPAC Make Model RAC 1006 Hydraulic Jack of capacity 100ton.

C.1 Scope of specification : This specification is intended to cover the technical requirements for the design, manufacture, testing, delivery, on site erection and commissioning of Hydraulic Jack of capacity 100ton.

C.2 Design Criteria :

C.2.1 Single-acting ; Spring-return ; Solid plunger; light-weight Aluminium Jack with composite internal bearings to prevent metal-to-metal contact , along with 1 No. female coupler; Jack should conform to **ASME Standard B30.1 & ISO 10100.**

C.2.1.1 Suitable Hard coat finish on all internal surfaces of Jack to resist damage to jack

C.2.1.2 Hardened Steel saddle on plunger for protection against load induced damages

C.2.1.3 Provision of Integral stop-ring to prevent plunger over-travel

C.2.1.4 Suitable Lifting handle on jack shall be provided

C.2.2 Capacity of the Hydraulic Jack (Ram) with suitable Hydraulic pump to lift – 100 ton

C.2.2.1 Stroke – 150mm

C.2.2.2 Collapsed Height – 321mm

C.2.2.3 Weight – 21.9Kgs

C.2.2.4 Extended Height – 471 mm.

C.2.2.5 Outside Diameter of Cylinder – 180mm

C.2.2.6 Oil Capacity of cylinder – 2147 cm³

C.2.2.7 Cylinder effective Area – 143.1 cm²

C.3.1 Two-speed P – 801 hydraulic hand pump for operating 1 Nos. Jack with Steel body construction; chrome plated plunger & wiper; Vent-free reservoir; Over-pressurization protection; Pump carrying handle

C.3.1.1 Max. Working Pressure – 700 bar

C.3.1.2 Weight – 14.1 Kgs

C.3.2 Glycerine filled pressure gauge with gauge adapter

C.3.2.1 Face Diameter of pressure gauge – 63 mm

C.3.2.2 **Minimum** Pressure range – 0 bar

C.3.2.3 **Maximum** Pressure range – 700 bar

C.3.3 Heavy duty rubber hose reinforced with two layers of steel wire braids; Male coupler at both ends

C.3.3.1 **Length of** Heavy duty rubber hose reinforced with two layers of steel wire braids – 1828.8 mm

C.3.3.2 **Internal diameter of** Heavy duty rubber hose reinforced with two layers of steel wire braids – 6.4mm

C.3.3.3 **Maximum Working Pressure of** rubber hose reinforced with two layers of steel wire braids – 701 bar

D. The general requirement and scope of supply also include the following - (at point i to ix) – As per ANNEXURE – 100t Hydraulic Jack

i. The pump shall be operated from Remote area by suitable capacity High pressure hose.

ii. The capacity of the Reservoir shall be suitable to meet the requirement of the system.

iii. Suitable capacity hydraulic pump , hoses & connectors etc.

iv. High pressure Hydraulic Hose with quick coupler, half nut, etc.

v. First fill of all oils and lubricants

vi. Operation, maintenance & instruction manual and parts catalogue in English & also shall be provided in pendrive - 02 nos.

vii. Four quarterly free Service during the warranty period of one year.

viii. Commissioning, testing & training at site on operation, maintenance & safety during operation to our personnel at site.

ix. Wooden case to fit all items.

E. General technical requirement - (consisting of following requirements indicated at sl. No. 1 to 6) - As per ANNEXURE – 100t Hydraulic Jack

1. The list of standard and optional accessories of 100 ton Hydraulic Jack .

2. Make & detailed technical literature / leaflet of 100 ton Hydraulic Jack confirming the above specification.

3. Hydraulic Jack should be made & tested as per relevant BIS standard / ISO standard / ASME B-3.1 and safety codes & rules.

	<p>4. The detailed technical specification against NIT details and the details of material, construction, performance, capacity, weight, dimension etc. of RAC 1006 model Hydraulic Jack.</p>
	<p>5. The Manufacturer shall confirm that they will submit the test reports of the offered model for capacity, quality, accuracy, dimensions etc. as per requirement / relevant standard at the time of supply of the machines.</p>
	<p>6. After sales & service facility near Singrauli area.</p>
	<p>F. Documents / Informations - As per ANNEXURE – 100t Hydraulic Jack.</p>
	<p>Technical leaflets / brochures containing complete Technical details of Hydraulic Jack, hydraulic hoses , fitting details, hydraulic pump details along with reservoir capacity, Performance, Dimensions, Weights etc.</p>
Hydraulic bearing puller Kit	<p>Introduction: These Technical Specifications identify the technical requirements of the Goods and Services which are the subject of this supply order. The Technical Specifications are presented in following parts:</p>
	<p>Part – A: Scope of Supply</p>
	<p>Part B. : General Requirements comprising of the following (at point 1 to 8):</p>
	<p>1) Geography and Climatic Conditions</p>
	<p>2) Goods (Equipment and Machinery)</p>
	<p>3) Services</p>
	<p>4) Standards</p>
	<p>5) Bidder's/ Supplier's Responsibility</p>
	<p>6) Spare Parts Provisions</p>
	<p>7) Availability Provisions</p>
	<p>8) Quality Assurance</p>
	<p>Conformity with Specification: The Hydraulic Bearing Puller kit BHP3751G to be supplied shall conform to the requirements defined in these parts. Where stated requirements conflict, the order in which the specifications shall prevail is as follows: Part A followed by Part B followed by Part C</p>
	<p>PART-A : Scope of Supply A.1 Equipment Package: The supplier is required to provide a complete package of equipment for the supply of Hydraulic Bearing Puller Kit along with suitable capacity hydraulic pump , hose, connectors etc. to open cast (surface) coal mining projects: The supplier is required to supply the Equipment Package ; including accessories, consumables, training, installation, commissioning and testing at the coal-mining project.</p>
<p>A.2 Information & Drawings: The supplier shall provide not less than: Suitably illustrated copies of operating, repair and maintenance manuals for hydraulic bearing puller kit and accessories, written in the English language substantially bound in book form. Suitably illustrated copies of detailed spares parts manual of hydraulic bearing puller kit and accessories written in the English language substantially bound in book form • 2 copies to project/each project site and • 1 copy along with its soft copy to GM [Excavation]/HOD, NCL, Singrauli • 1 copy along with its soft copy to GM [MM] / HOD, NCL, Singrauli The supplier shall also submit, (in the same number of copies) the data identified in the specifications of hydraulic bearing puller kit proposed.</p>	

PART-B. General Requirements:

B.1 Goods (Equipment and Machinery)

Detailed specifications of the hydraulic bearing puller kit to be supplied are given in Part C of this section

In general, all items shall be:

1. New, unused, of the current design [incorporating latest proven features] and not likely to be discontinued or become obsolete in the near future.
2. Designed and constructed to handle without overload & the maximum volumes / rates specified.
3. Designed to facilitate ready access, cleaning, inspection, maintenance and repair of component parts.
4. Designed to facilitate rapid change over of consumable items.

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

Controls and interfaces for the equipment to operate safely and efficiently.

All workmanship and materials shall be of top most quality in every respect.

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

B.2 Services

B.2.1 Supervision of Erection and commissioning:

The supplier shall be responsible for the erection and commissioning of the equipment at site.

The supplier shall depute qualified and competent Engineer(s), to undertake supervision of the entire assembly, erection and commissioning of equipment free of cost for suitable man days including Sundays & Holidays if worked per machine for erection, commissioning and test running, as well as, training and operation and maintenance of the equipment at site.

Commissioning shall include testing of the equipment at maximum rating under mine operating conditions as specified to the satisfaction of the user.

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

B.2.2 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. The machine system, safety and risk assessment
- B. Equipment operation and maintenance
- C. Trouble shooting, localization of fault and their remedies covering:
 1. Mechanical
 2. Hydraulic system

Comprehensive training manuals with clear illustration shall be provided to each participant.

The training courses shall be conducted in both English and Hindi languages as required.

B.3 Standards:

The design, supply, erection, testing and commissioning of all equipment under this contract shall in all respects comply with the requirements of this specification and with appropriate current Indian standards and codes or relevant standards issued by the ISO 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 /SAE/ Indian Standards. Such equivalent international standards are to be supported by documentary evidence certifying that offered standards are identical to the corresponding ISO /SAE/ Indian Standards.

The system of units for all measurements shall be the **SYSTÉME INTERNATIONAL D'UNITÉS[SI]**

B.4 Supplier's 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.

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 purchaser's nominated personnel.

B.5 Spare parts Provision**B.5.1.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.

B.5.1.b: Bought-out assemblies and sub-assemblies

The supplier is required to furnish the details of all bought-out items with their make & model, if any 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." List of bought out items along with Certificate NA.

B.6.1.A Give not less than 6 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.6.1.B Immediately following termination provide to the purchaser at no cost manufacturing drawings, material specification and necessary permission to manufacture of the spare parts elsewhere.

B.6.1.C Any change in part number or superceded part number should be informed to the NCL headquarter - Excavation Department, MM Department and the project site wherever the equipment is operating.

B.7. Effect and Duration of guarantee

B.7.1 This guarantee shall become effective on the day on which the Hydraulic Bearing Puller kit is commissioned at site. The issue of the purchaser's acceptance certificate shall evidence commissioning.

B.7.2 This guarantee shall remain effective for twelve (12) months period from the date of issue of acceptance certificate.

B.8 Quality Assurance - The supplier should furnish in detail its quality assurance plan for various stages of manufacture. The quality assurance plan shall comply with an internationally recognized quality assurance standard such as ISO 9001-2008 or latest.

The Supplier shall provide facilities to Purchaser or their authorized representatives for progress inspection during manufacture at their works and furnish all test data available in this regard for quality control, both for bought out items and their own manufactured items. The Purchaser or their agent, when so required by them, shall also be provided with samples of "bought-out" materials for the purposes of undertaking independent tests, which shall be at the expense of the Purchaser.

PART C. EQUIPMENT SPECIFICATION OF ENERPAC Make BHP3751G Model Hydraulic Bearing Puller kit, capacity 30 Ton.

C.1 Scope of specification : This specification is intended to cover the technical requirements for the design, manufacture, testing, delivery, on site commissioning of Hydraulic Bearing Puller kit , capacity 30 Ton.

C.2 Design Criteria : Hydraulic Bearing Puller Kit consisting of Grip puller, Cross bearing puller, Bearing cup puller & Bearing puller with suitable hydraulic spindle , hydraulic hose, coupler, attachment etc.

C.3 : Grip Puller – (BHP352)

The legs of following puller kit shall be constructed from forged steel with following description -

C.3.1a Puller shall consist of 2 & 3 jaw arrangement

C.3.1b Maximum spread for 2 Jaw puller – 593 mm

C.3.1c	Maximum spread for 3 Jaw puller – 800 mm
C.3.1d	Reach – 387 mm
C.3.1e	Jaw thickness – 24 mm
C.3.1f	Jaw width - 38 mm
C.4 : Cross Bearing Puller (BHP362) :	
C.4.1a	: Minimum Spread - 179 mm
C.4.1b	: Maximum Spread - 454 mm
C.4.1c	Maximum Reach - 711 mm
C.5 : Bearing Cup Puller (BHP380)	
C.5.1a	: Minimum Spread - 50 mm
C.5.1b	: Maximum Spread - 359 mm
C.5.1.c	: Maximum Reach – 145 mm
C.6 : Bearing Puller (BHP382)	
C.6.1a	: Minimum Spread - 17 mm
C.6.1b	: Maximum Spread - 245 mm
C.6.1.c	: Width - 292 mm
D. The general requirement and scope of supply also include the following - (at point i to ix) As per ANNEXURE – Hydraulic Bearing Puller Kit	
i. The puller shall be operated from Remote area by suitable capacity High pressure hose.	
ii. Suitable capacity hand pump , hoses & connectors etc.	
iii. High pressure Hydraulic Hose of suitable length with quick coupler, half nut, etc.	
iv. Glycerine filled pressure gauge with gauge adapter	
v. First fill of all oils and lubricants	
vi. Operation, maintenance & instruction manual and parts catalogue in English & also shall be provided in pendrive - 02 nos.	
vii. Four quarterly free Service during the warranty period of one year.	
viii. Commissioning, testing & training at site on operation, maintenance & safety during operation to our personnel at site.	
ix. Wooden case to fit all items.	
E. General technical requirement - (consisting of following requirements indicated at sl. No. 1 to 7) As per ANNEXURE – Hydraulic Bearing Puller Kit	
1. The list of standard and optional accessories.	
2. Make & detailed technical literature / leaflet of Hydraulic Bearing Puller Kit confirming the above specification.	
3. Hydraulic Bearing Puller Kit should be made & tested as per relevant BIS standard / international standard and safety codes & rules and details of such standard, codes & rules confirmed, if any, should be given with the offer.	
4. The detailed technical specification against NIT details and the details of material, construction, performance, capacity, weight, dimension etc. of supplied Hydraulic Bearing Puller Kit.	
5. The Manufacturer shall submit the test reports of the supplied model of Hydraulic Bearing Puller Kit for capacity, quality, accuracy, dimensions etc. as per requirement / relevant standard at the time of supply.	

	6. Authorised agent should submit the agreement copy with their principal/manufacturer related to technical services to be rendered by them.
	7. After sales & service facility near Singrauli area.
	F. Documents / Informations - As per ANNEXURE – Hydraulic Bearing Puller Kit.
	Technical leaflets / brochures containing complete Technical details of Hydraulic Bearing Puller Kit , hydraulic hoses , fitting details, hand pump details along with reservoir capacity, Performance, Dimensions, Weights etc.
Hydraulic Bearing Puller	Introduction: These Technical Specifications identify the technical requirements of the Goods and Services which are the subject of this supply order. The Technical Specifications are presented in following parts:
	Part – A: Scope of Supply
	Part B. : General Requirements comprising of the following (at point 1 to 8):
	1) Geography and Climatic Conditions
	2) Goods (Equipment and Machinery)
	3) Services
	4) Standards
	5) Bidder's/ Supplier's Responsibility
	6) Spare Parts Provisions
	7) Availability Provisions
	8) Quality Assurance
	Conformity with Specification: The EPHR113 Hydraulic Bearing Puller to be provided shall conform to the requirements defined in these parts. Where stated requirements conflict, the order in which the specifications shall prevail is as follows: Part A followed by Part B followed by Part C
	PART-A : Scope of Supply A.1 Equipment Package: The supplier is required to provide a complete package of equipment for the supply of EPHR 113 Hydraulic Bearing Puller to open cast (surface) coal mining projects: The supplier is required to supply the Equipment Package ; including accessories, consumables, training, installation, commissioning and testing at the coal-mining project.
	A.2 Information & Drawings: The supplier shall provide not less than: Suitably illustrated copies of operating, repair and maintenance manuals for hydraulic bearing puller and accessories, written in the English language substantially bound in book form. Suitably illustrated copies of detailed spares parts manual of hydraulic bearing puller and accessories written in the English language substantially bound in book form • 2 copies to project / each project site and • 1 copy along with its soft copy to GM [Excavation]/HOD, NCL, Singrauli • 1 copy along with its soft copy to GM [MM] / HOD, NCL, Singrauli The supplier shall also submit, (in the same number of copies) the data identified in the specifications of hydraulic bearing puller proposed.

PART-B. General Requirements:

B.1 Goods (Equipment and Machinery)

Detailed specifications of the hydraulic bearing puller to be supplied are given in Part C of this section

In general, all items shall be:

1. New, unused, of the current design [incorporating latest proven features] and not likely to be discontinued or become obsolete in the near future.
2. Designed and constructed to handle without overload & the maximum volumes / rates specified.
3. Designed to facilitate ready access, cleaning, inspection, maintenance and repair of component parts.
4. Designed to facilitate rapid change over of consumable items.

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

Controls and interfaces for the equipment to operate safely and efficiently.

All workmanship and materials shall be of top most quality in every respect.

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

B.2 Services

B.2.1 Supervision of Erection and commissioning:

The supplier shall be responsible for the erection and commissioning of the equipment at site.

The supplier shall depute qualified and competent Engineer(s), to undertake supervision of the entire assembly, erection and commissioning of equipment free of cost for suitable man days including Sundays & Holidays if worked per machine for erection, commissioning and test running, as well as, training and operation and maintenance of the equipment at site.

Commissioning shall include testing of the equipment at maximum rating under mine operating conditions as specified to the satisfaction of the user.

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

B.2.2 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. The machine system, safety and risk assessment
- B. Equipment operation and maintenance
- C. Trouble shooting, localization of fault and their remedies covering:
 1. Mechanical
 2. Hydraulic system

Comprehensive training manuals with clear illustration shall be provided to each participant.

The training courses shall be conducted in both English and Hindi languages as required.

B.3 Standards:

The design, supply, erection, testing and commissioning of all equipment under this contract shall in all respects comply with the requirements of this specification and with appropriate current Indian standards and codes or relevant standards issued by the ISO 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 /SAE/ Indian Standards. Such equivalent international standards are to be supported by documentary evidence certifying that offered standards are identical to the corresponding ISO / SAE / Indian Standards.

The system of units for all measurements shall be the **SYSTÉME INTERNATIONAL D'UNITÉS[SI]**

B.4 Supplier's 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.

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 purchaser's nominated personnel.

B.5 Spare parts Provision**B.5.1.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.

B.5.1.b: Bought-out assemblies and sub-assemblies

The supplier is required to furnish the details of all bought-out items with their make & model, if any 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." List of bought out items along with Certificate NA.

B.6.1.A Give not less than 6 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.6.1.B Immediately following termination provide to the purchaser at no cost manufacturing drawings, material specification and necessary permission to manufacture of the spare parts elsewhere.

B.6.1.C Any change in part number or superceded part number should be informed to the NCL headquarter - Excavation Department, MM Department and the project site wherever the equipment is operating.

B.7. Effect and Duration of guarantee

B.7.1 This guarantee shall become effective on the day on which the Hydraulic Bearing Puller is commissioned at site. The issue of the purchaser's acceptance certificate shall evidence commissioning.

B.7.2 This guarantee shall remain effective for twelve (12) months period from the date of issue of acceptance certificate.

B.8 Quality Assurance - The supplier should furnish in detail its quality assurance plan for various stages of manufacture. The quality assurance plan shall comply with an internationally recognized quality assurance standard such as ISO 9001-2008 or latest.

The Supplier shall provide facilities to Purchaser or their authorized representatives for progress inspection during manufacture at their works and furnish all test data available in this regard for quality control, both for bought out items and their own manufactured items. The Purchaser or their agent, when so required by them, shall also be provided with samples of "bought-out" materials for the purposes of undertaking independent tests, which shall be at the expense of the Purchaser.

PART C. EQUIPMENT SPECIFICATION OF ENERPAC Make EPHR 113 Model Hydraulic Bearing Puller , capacity 25 ton.

C.1 Scope of specification : This specification is intended to cover the technical requirements for the design, manufacture, testing, delivery, on site commissioning of Hydraulic Bearing Puller , capacity 25 ton.

C.2 Design Criteria : Posi Lock Hydraulic Bearing Puller with suitable hydraulic spindle , hydraulic cylinder, hydraulic pump , coupler, hose, attachment etc.

C.3 : Bearing Puller -

The legs of hydraulic bearing puller shall be constructed from forged steel and provided with jaw retention system with following description -

C.3.1.a Puller shall consist of 3 jaw arrangements with following features -

C.3.1.b : Minimum Spread - 63 mm.

C.3.1.c	: Maximum Spread - 457 mm.
C.3.1.d	: Maximum Reach – 304 mm
C.3.1.e	: Jaw length – 348 mm
C.3.1.f	: Jaw Width – 31 mm.
C.3.1.g	: Weight – 48 Kgs.
C.4 : Hydraulic System :	
C.4.1 A suitable two speed hand pump for fast and easy operation of hydraulic cylinder fitted in the hydraulic bearing puller ; Capacity of Hydraulic cylinder shall be 25t.	
C.4.2.1	Operating pressure of pump – 700 bar.
C.4.2.2	Suitable vent free reservoir with over pressurisation protection.
C.4.2.3	Usable oil capacity of hand pump - 50 cm ³ .
C.4.2.4	Hand Pump shall be provided with suitable Quick Grip handle and handle lock, internal pressure relief valve.
C.4.3	Suitable Glycerine filled Pressure Guage with adapter.
C.4.3.1	Minimum Pressure – 0 bar.
C.4.3.2	Maximum Pressure – 700 bar.
C.4.4 Hose : Thermoplastic Hose with outer jacket of polyurethane , fitted with suitable male coupler at on end	
C.4.4.1	Length of Hose – 1828.8 mm
C.4.4.2	Internal Diameter of hose – 6.4 mm
C.4.4.3	Working Pressure of hose – 700 bar
D. The general requirement and scope of supply also include the following - (at point i to x) As per ANNEXURE – Hydraulic Bearing Puller.	
i. The pump shall be operated from Remote area by suitable capacity High pressure hose.	
ii. Suitable capacity hydraulic pump , hoses & connectors etc.	
iii. Suitable Safety arrangement shall be provided for safe and effective functioning of puller assembly.	
iv. High pressure Hydraulic Hose with quick coupler, half nut, etc.	
v. First fill of all oils and lubricants	
vi. Operation, maintenance & instruction manual and parts catalogue in English & also shall be provided in pendrive - 02 nos.	
vii. Four quarterly free Service during the warranty period of one year.	
viii. Commissioning, testing & training at site on operation, maintenance & safety during operation to our personnel at site.	
ix. Any other items, if any, specifically not mentioned above but essential during installation, commissioning, testing, satisfactory operation of the hydraulic bearing puller should also be given with the offer.	
x. Wooden case to fit all items.	
E. General technical requirement - (consisting of following requirements indicated at sl. No. 1 to 7) – As per ANNEXURE – Hydraulic Bearing Puller.	
1. The list of standard and optional accessories of EPHR 113 Model Hydraulic Bearing Puller.	
2. Make & detailed technical literature / leaflet of EPHR 113 Model Hydraulic Bearing Puller confirming the above specification.	
3. Hydraulic Bearing Puller should be made & tested as per relevant BIS standard / international standard and safety codes & rules.	

	4., The detailed technical specification against NIT details and the details of material, construction, performance, capacity, weight, dimension etc. of offered model.
	5. The Manufacturer shall confirm that they will submit the test reports of the supplied model for capacity, quality, accuracy, dimensions etc. as per requirement / relevant standard at the time of supply of the machines.
	6. Authorised agent should submit the agreement copy with their principal/manufacturer related to technical services to be rendered by them.
	7. After sales & service facility near Singrauli area.
	F. Documents / Informations : As per ANNEXURE – Hydraulic Bearing Puller.
	Technical leaflets / brochures containing complete Technical details of Hydraulic bearing puller, hydraulic pump, hydraulic hoses, fitting details, along with details of allied components, Performance, Dimensions, Weights etc.

(D Dhanabalan)
Sr. Manager (MM)

(S.K. Agrawal)
Chief Manager (MM)