

Rev 01
1st Jun
2012

NOTICE INVITING TENDER

(Document No PS:MSX:NIT)

Bharat Heavy Electricals Limited

Registered



Ref: BHEL/NR/SCT/PSNR SITES/CRANES O&M/1205

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NOTICE INVITING E-TENDER (NIT)
BIDDER TO SUBMIT OFFERS ON PORTAL
<https://bhel.abcprocure.com>

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To

Dear Sir/Madam

Sub : NOTICE INVITING E-TENDER

Sealed offers in two part bid system are invited from reputed & experienced bidders (meeting PRE QUALIFICATION CRITERIA as mentioned in Annexure-I) for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Following points relevant to the tender may please be noted and complied with.

1. Salient Features of NIT

SL NO	ISSUE	DESCRIPTION
i	TENDER NUMBER	BHEL/NR/SCT/PSNR SITES/CRANES O&M/1205
ii	Broad Scope of job	Rate contract for providing services of regular operation, routine maintenance & minor breakdown repairs of cranes at various BHEL-PSNR Project sites.
iii	DETAILS OF TENDER DOCUMENT	
a	Volume-IA	<i>Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc</i> Applicable
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i> Applicable
c	Volume-IC	<i>General Conditions of Contract (GCC)</i> Applicable
d	Volume-ID	<i>Forms and Procedures</i> Applicable
e	Volume-II	<i>Price Schedule (Absolute value).</i> Applicable
iv	Issue of Tender Documents	From BHEL website (www.bhel.com) and <u>https://bhel.abcprocure.com</u> Tender documents will be available at website till due date of submission Applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	Date : 15/09/2020, Time : 1500 HRS Place : on <u>https://bhel.abcprocure.com</u> Applicable
vi	OPENING OF TENDER	At due date / time Date : 15/09/2020, Time : 1530 HRS Notes: (1) In case the due date of opening of tender becomes a non-working day, then the due date & time of offer submission and opening of tenders get extended to the next working day. (2) Bidder may depute representative to witness the Applicable

		opening of tender. However it being an e-tender it shall be opened online	
vii	EMD AMOUNT	Rs. 2,19,600/-.	Applicable
viii	COST OF TENDER	Rs. 2000/-.	Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	Five days before bid submission due date. Along with soft version also, addressing to contact address given below 1) Name: Rashmi Sahu Designation: Dy. Engineer Deptt: SCT Address: BHEL-PSNR, PLOT NO. 25, SECTOR – 16A, NOIDA - 201301 Phone: (Landline/Mobile) 0120 - 2416449 Email : rsahu@bhel.in 2) Name: G.V.RAJASEKHAR Designation: SR. Manager Deptt: SCT Address: BHEL-PSNR, PLOT NO. 25, SECTOR – 16A, NOIDA - 201301 Phone: (Landline/Mobile) 0120-2416232 Email : gvr@bhel.in	Applicable
x	SCHEDULE OF Pre Bid Discussion (PBD)		Not applicable.
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)		Not applicable
xii	Latest updates	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage (www.bhel.com -->Tender Notifications →View Corrigendums) & portal https://bhel.abcpocure.com and not in the newspapers . Bidders to keep themselves updated with all such information	
xiii	Tender submission	on portal https://bhel.abcpocure.com	

2. The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**
3. Unless specifically stated otherwise, bidder shall remit cost of tender and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Power Sector Regional HQ at Noida issuing the Tender, along with techno-commercial offer. Bidder may also choose to deposit the Tender document cost by cash at the Cash Office as stated above against sl no iv of 1, on any working day; and in such case copy of Cash receipt is to be enclosed with the Techno Commercial offer. Sale of tender Documents shall not take place on National Holidays, holidays declared by Central or State Governments and BHEL PS HQ at Noida, Sundays and second/ last Saturdays.

As this tender is an E-Tender and no paper bids will be accepted therefore the scanned copy of the Demand Draft or the Cash Receipt issued by BHEL PSNR should be uploaded in the E procurement portal. Hard Copy of the demand draft should reach BHEL PSNR HQ Noida before the due date and time of bid submission. BHEL shall not be responsible for postal or any other delays in this regard.

4. Unless specifically stated otherwise, tender must be accompanied by the prescribed amount of Earnest Money Deposit (EMD) in the manner described in Clause no. 1.9 of General Conditions of Contract.

'One Time EMD' will not be considered for this tender. All the bidders who have 'One Time EMD' with BHEL and want to participate in this tender, would also submit the requisite amount of EMD as mentioned in Clause No. 1, Salient Features of NIT, Sl. No. (vii) above.

However, the One Time EMD can be adjusted against the EMD applicable against this tender on specific request of bidder.

For Electronic Fund Transfer the details are as below:-

a) **Name of the Beneficiary** :- Bharat Heavy Electricals Limited

b) **Bank Particulars**

i).	Bank Name :-	STATE BANK OF INDIA
ii).	Bank Telephone No.(with STD code):-	011-23475566
iii).	Branch Address:-	CAG II BRANCH, NEW DELHI 4 th & 5 th FLOOR, REDFORT CAPITAL, PARASNATH TOWERS, BHAI VEER SINGH MARG, GOLE MARKET, NEW DELHI-110001
iv).	Bank Fax No. (with STD code) :-	011-23475566
v).	Branch Code :-	17313
vi).	9 Digit MICR Code of the Bank Branch :-	110002562
vii).	Bank Account Number :-	10813608647
viii).	Bank Account Type :-	CASH CREDIT
ix).	11 Digit IFSC Code of Beneficiary Branch:-	SBIN0017313

(Note:- In case of E-Tenders, no paper bids shall be accepted, therefore, the scanned copy of the Banker's Cheque/ Demand Draft/ Pay Order/ Details of payment made through Electronic Fund Transfer/ Fixed Deposit Receipt (FDR) / Bank Guarantee should be uploaded in the E-Procurement Portal and hard copy of the same should reach BHEL-PSNR HQ Noida before the due date and time of bid submission. BHEL shall not be responsible for postal or any other delays in this regard.)

5. **Procedure for Submission of Tenders:** This is an E-tender floated online through our E-Procurement Site <https://bhel.abcpurchase.com>. The bidder should respond by submitting their offer online only in our e-Procurement platform at <https://bhel.abcpurchase.com>. Offers are invited in two-parts only.

Documents Comprising the e-Tender

The tender shall be submitted online ONLY EXCEPT TENDER FEE & EMD (in physical form) as mentioned below:

a. Technical Tender (UN priced Tender)

All Technical details (eg. Eligibility Criteria requested (as mentioned below)) should be attached in e-tendering module, failing which the tender stands invalid & may be REJECTED. Bidders shall furnish the following information along with technical tender (preferably in pdf format):

- Tender Cost and Earnest money Deposit (EMD) furnished in accordance with NIT Clause 3.0 & 4.0. Alternatively, documentary evidence for claiming exemption as per clause 28 of NIT.
- Technical Bid (without indicating any prices).

b. Price Bid:

- i. Prices are to be quoted in the attached Price Bid format online on e-tender portal.
- ii. The price should be quoted for the accounting unit indicated in the e-tender document.
- iii. Note: It is the responsibility of tenderer to go through the Tender document to ensure furnishing all required documents in addition to above, if any. Any deviation would result in REJECTION of tender and would not be considered at a later stage at any cost by BHEL.
- iv. A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.
- v. A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.
- vi. In case offer is sent through hard copy/fax/telex/cable/electronically in place of e-tender, same shall not be considered.

DO NOT'S

Bidders are requested NOT to submit the hard copy of the Bid. In case offer is sent through hard copy/fax/telex/cable/electronically in place of e-tender, the same shall not be considered. **Also, uploading of the price bid in prequalification bid or technical bid may RESULT IN REJECTION of the tender.**

Digital Signing of e-Tender

Tenders shall be uploaded with all relevant PDF/zip format. The relevant tender documents should be uploaded by an authorized person having Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION digital signature certificate (DSC).

The Requirement:

1. A PC with Internet connectivity &
2. DSC (Digital Signature Certificate)(**Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**)

BHEL has finalized the e-procurement service Provider:-

M/s AbcProcure, Ahmedabad

A-202/208, Wall Street-II, Opp. Orient Club, Nr. Gujarat College,

Ellis Bridge, Ahmedabad-380006

The contact details of the service provider are given below:

Name	Contact Nos.	e-mail ID	Role	Location
Swapnil Hamilton	+91 79 40270549	swapnil.h@eptl.in	Support Executive	HO – Ahmedabad
Hardik Oza	+91 79 40270560	Hardik.oza@eptl.in	Support Executive	HO – Ahmedabad
Ankur Bhatt	+91 79 40270590	ankur.bhatt@eptl.in	Support Executive	HO – Ahmedabad
Prashant Rajyaguru	+91 79 40270545 / 9016859416	prashant@eptl.in	Ast. Manager – Implementation & Support	HO – Ahmedabad
Dharam Rathod	+91 79 40270596 / 9374519754	dharam@eptl.in	Manager – Implementation & Support	HO – Ahmedabad
Pradip Parmar	+91 79 40270532 / 9328657215	pradip@eptl.in	Sr Manager – Implementation & Support	HO – Ahmedabad
Devang Patel	+91 79 40270576 / 99983 05442	devang@eptl.in	Sr Manager – Implementation & Support	HO – Ahmedabad

The process of utilizing e-procurement necessitates usage of **DSC (Digital Signature Certificate) (Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION)** and you are requested to procure the same immediately, if not presently available with you. Please note that only with DSC, you will be able to login the e-procurement secured site and take part in the tendering process.

1. The contact details of the DSC Certifying Authority as given below

1	GNFC	www.ncodesolutions.com
2	e-Mudhra	http://www.e-Mudhra.com
3	Safescrypt	www.safescrypt.com

Vendors are also requested to go through seller manual available on <https://bhel.abcpocure.com>.

6. **Not Used**

7. Deviation with respect to tender clauses and additional clauses/suggestions in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.

8. BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).

9. **Assessment of Capacity of Bidders: Not applicable**

10. Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions.

11. For any clarification on the tender document, the bidder may seek the same over e-procurement portal as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.

12. BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.

13. In the event of any conflict between requirement of any clause of this specification/ documents/drawings/data sheets etc or requirements of different codes/standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer, else BHEL's interpretation shall prevail.

14. Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.

15. Not applicable

16. The Bidder has to satisfy the Pre-Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre-Qualification Criteria specified in this NIT as per Annexure-I (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under HOLD.

17. In case BHEL decides on a 'Public Opening', the date & time of opening of the PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorised representative to witness the price bid opening. BHEL reserves the right to open 'in-camera' the 'PRICE BID' of any or all Unsuccessful/Disqualified bidders under intimation to the respective bidders-
18. Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.
19. Not Applicable
20. On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
21. In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.
22. The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
23. **Consortium Bidding** (or Technical Tie up) : Not applicable
24. The bidder shall upload documents in support of possession of 'Qualifying Requirements' duly self-certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.
25. The bidder may have to produce original document for verification if so decided by BHEL.
26. It may please be noted that guidelines/rules in respect of Suspension of Business dealings', 'Vendor evaluation format', 'Quality, Safety & HSE guidelines', milestone/ completion certificate, etc may undergo change from time to time and the latest one shall be followed. The abridge version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' is available on www.bhel.com on "**supplier registration page**".
- 27.0 The offers of the bidders who are on the banned/ hold list as also the offer of the bidders, who engage the services of the banned/ hold firms, shall be rejected. The list of **banned/ hold firms** is available on BHEL web site www.bhel.com
- 27.1 Integrity commitment, performance of the contract and punitive action thereof:
 - 27.1.1 **Commitment by BHEL:**
BHEL commits to take all measures necessary to prevent corruption in connection with the tender Process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.
 - 27.1.2 **Commitment by Bidder/ Supplier/ Contractor:**
 - (i) The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
 - (ii) The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.

- (iii) The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the prices or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extent guidelines of the company available on www.bhel.com and / or under applicable legal provisions.

28.0 Micro and Small Enterprises (MSE) – Not applicable

- 29.0 The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.

30.0 PREFERENCE TO MAKE IN INDIA:

For this procurement, Public Procurement (*Preference to Make in India*), Order 2017 dated 15.06.2017, 28.05.2018, 29.05.2019 & 04.06.2020 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract/ PO/ WO against this NIT.

In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and/ or local content in respect of this procurement, same shall be applicable.

- 31.0 In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders.

In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/ draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s).

Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

32.0 Order of Precedence

In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:

- a. Amendments/Clarifications/Corrigenda/Errata etc issued in respect of the tender documents by BHEL
- b. Notice Inviting Tender (NIT)
- c. Price Bid
- d. Technical Conditions of Contract (TCC)
- e. Special Conditions of Contract (SCC)
- f. General Conditions of Contract (GCC)
- g. Forms and Procedures

for BHARAT HEAVY ELECTRICALS LTD

(SCT)

Enclosure:-

- (i) Annexure-1: Pre Qualifying criteria.
- (ii) Annexure-2: Check List.
- (iii) Annexure-3: Feedback form
- (iv) Other Tender documents as per this NIT.

ANNEXURE - 1**PRE QUALIFYING REQUIREMENTS**

JOB	Rate contract for providing services of regular operation, routine maintenance & minor breakdown repairs of cranes at various BHEL-PSNR Project sites.
TENDER NO.	BHEL/NR/SCT/PSNR SITES/CRANES O&M/1205

SL. NO.	NAME AND DESCRIPTION OF PRE QUALIFICATION CRITERIA	Bidder's claim in respect of fulfilling the PQR criteria																																		
A	Submission of Integrity Pact	Not applicable																																		
B	Assessment of Capacity of bidder to execute the work as per clause 9.0 of NIT	Not applicable																																		
C	<p><u>Technical</u> <u>Bidder who wish to participate should have experience as follows:</u></p> <p>Bidder shall have the experience of having successfully completed similar work in the last seven years from latest date of bid submission. Experience shall be of one work or two works or three works costing not less than the amount as per the following table:</p> <table><tr><th rowspan="2">SL. NO.</th><th rowspan="2">QUOTING FOR CATEGORY</th><th colspan="3">SIMILAR WORK EXPERIENCE IN TERMS OF NO. OF WORKS</th><th>SIMILAR WORK EXPERIENCE IN TERMS OF CRANE CAPACITY</th></tr><tr><th>ONE WORK (in lac)</th><th>TWO WORKS (in lac) EACH</th><th>THREE WORKS (in lac) EACH</th><th>MINIMUM CRANE CAPACITY</th></tr><tr><td>1</td><td>' A '</td><td>15.6</td><td>9.8</td><td>7.8</td><td>75MT</td></tr><tr><td>2</td><td>' B '</td><td>46.3</td><td>28.9</td><td>23.1</td><td>100MT</td></tr><tr><td>3</td><td>' C '</td><td>17.8</td><td>11.1</td><td>8.9</td><td>200MT</td></tr><tr><td>4</td><td>' D '</td><td>8.2</td><td>5.1</td><td>4.1</td><td>250 MT</td></tr></table>	SL. NO.	QUOTING FOR CATEGORY	SIMILAR WORK EXPERIENCE IN TERMS OF NO. OF WORKS			SIMILAR WORK EXPERIENCE IN TERMS OF CRANE CAPACITY	ONE WORK (in lac)	TWO WORKS (in lac) EACH	THREE WORKS (in lac) EACH	MINIMUM CRANE CAPACITY	1	' A '	15.6	9.8	7.8	75MT	2	' B '	46.3	28.9	23.1	100MT	3	' C '	17.8	11.1	8.9	200MT	4	' D '	8.2	5.1	4.1	250 MT	Applicable
SL. NO.	QUOTING FOR CATEGORY			SIMILAR WORK EXPERIENCE IN TERMS OF NO. OF WORKS			SIMILAR WORK EXPERIENCE IN TERMS OF CRANE CAPACITY																													
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3	' C '	17.8	11.1	8.9	200MT																															
4	' D '	8.2	5.1	4.1	250 MT																															
D D-1	<p><u>FINANCIAL TURNOVER</u></p> <p>a) Bidders must have achieved an average annual financial turnover (Audited) of minimum</p> <ul style="list-style-type: none">Rs. 5.86 Lacs for quoting category-A onlyRs. 17.35 Lacs for quoting category-B onlyRs. 6.68 Lacs for quoting category-C onlyRs. 3.06 Lacs for quoting category-D only <p>over last three Financial Years (FY) i.e. (2016-17, 2017-18 and 2018-19). Bidder shall submit audited accounts (balance sheets and profit & loss account) in support of this.</p>	Applicable																																		

	<p>b) Bidders who wish to quote for more than one category should have an average annual financial turnover, which results after summing up the turnover against individual category given at (a) as above over last three Financial Years (FY) i.e. (2016-17, 2017-18 and 2018-19).</p> <p>c) In case audited financial statements have not been submitted for all the three years as indicated above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years i.e. total divided by three.</p> <p>d) If Financial Statements are not required to be audited statutorily, then instead of audited financial statements, financial statements are required to be certified by Chartered Accountant.</p>	
D-2	<p><u>Net worth:</u></p> <p>Net Worth (Only in case of companies) of the Bidder should be positive.</p> <p>Note: Net worth shall be calculated based on the latest Audited Accounts as furnished for 'D-1' above.</p> <p>Net worth = Paid up share capital + Reserves</p>	
D-3	<p><u>Profit:</u> Bidder must have earned profit in any one of the three financial years as applicable in the last three financial years as furnished for 'D-1' above.</p> <p>Note: PROFIT shall be PBT earned during any one year of last three financial years as in 'D-1' above.</p>	
D-4	Bidder must not be under Bankruptcy Code Proceedings (IBC) by NCLT or under Liquidation / BIFR, which will render him ineligible for participation in this tender, and shall submit undertaking to this effect.	
E	Approval of Customer	Not Applicable
F	Consortium Criteria	Not Applicable

Explanatory Notes for QR 'C':

- 1) For Sl. No. 'C' above, "**Similar Work**" shall be defined as **operation and maintenance of crawler cranes** of capacity as mentioned in the above table.
- 2) Separate contract of operation and maintenance shall also be considered against each category.
- 3) Bidders qualifying for higher category cranes shall automatically be considered qualified for lower category cranes in terms of capacity but in terms of work value if bidders quote for more than one category then the total work value for the quoted categories shall be considered for qualification.
- 4) As per the rate schedule of the tender, rates are to be quoted in four different categories. The bidder can opt for quoting rates either for individual category or for more than one or all category.
- 5) For evaluation of PQR, in case Bidder alone does not meet the pre-qualifying technical criteria C above, bidder may utilize the experience of its Parent/ Subsidiary Company along with its own experience, subject to following:

- a) The parent company shall have a controlling stake of ≥50% in the subsidiary company (as per Format-1).
 - b) The Parent Company/ Subsidiary Company of which experience is being utilized for bidding shall submit Security Deposit(SD) equivalent to 1% of the total contract value.
 - c) The parent/ subsidiary company and bidder shall provide an undertaking that they are jointly or severally responsible for successful performance of the contract (as per Format-2).
- 6) For Sl. No. 'C' above, actual executed value shall be considered.
 - 7) Completion date for achievement of the specified technical criteria should be in the last 7 years ending on the 'latest date of Bid Submission' of Tender irrespective of date of the start of work.
 - 8) Executed" means the bidder should have achieved the specified technical criteria even if the Contract has not been completed or closed.
 - 9) For QR 'C' above, Value of work is to be updated with indices for "All India Avg. Consumer Price index for industrial workers" and "Monthly Whole Sale Price Index for All Commodities" with base month as per last month of work execution and indexed up to three (3) months prior to the month of latest due date of bid submission as per following formula-

$$P = \left\{ R + 0.425 \times R \times \frac{(X_N - X_0)}{X_0} + 0.425 \times R \times \frac{(Y_N - Y_0)}{Y_0} \right\}$$

Where

P = Updated value of work

R = Value of executed work

X_N = All India Avg. Consumer Price index for industrial workers for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

X₀ = All India Avg. Consumer Price index for industrial workers for last month of work execution.

Y_N = Monthly Whole Sale Price Index for All Commodities for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

Y₀ = Monthly Whole Sale Price Index for All Commodities for last month of work execution.
 - 10) Relevant documents, meeting above requirements at C & D, shall be submitted by bidders.

BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

Format-1**Certificate for relationship between Parent Company / Subsidiary Company and the bidder**

To,

.....
.....

Dear Sir,

Sub: Bid for NIT No.dated.....for “.....” (name of the tender).

We hereby certify that M/s.....is Parent Company / Subsidiary Company of M/s.....(the bidder) and details of equity holding of the Parent Company in Subsidiary Company as on(not earlier than seven days prior to the Bid Submission Date) are given as below:

Name of Parent Company	Name of Subsidiary Company	Percentage of Equity Holding of Parent Company in Subsidiary Company

(Insert Name and Signature of Statutory Auditor or practicing Company Secretary of the Bidder)

Format-2**Undertaking from the Parent Company / Subsidiary Company of the bidder**

(On the Letter Head of Parent Company / Subsidiary Company, as applicable)

From,
Name:
Full Address:

Telephone No.:
Email address:
Fax No.:

To,

.....
.....

Dear Sir,

We refer to the NIT No.....dated.....for “.....” (name of the Tender).

“We have carefully read and examined in detail the NIT/Tender Terms and Conditions, including in particular, Clause..... of the NIT/Tender, regarding submission of an Undertaking, as per the prescribed Format-1 of the NIT/Tender.

We confirm that M/s.....(the bidder) has been authorized by us to use our Technical capability for meeting the Technical Criteria as specified in Clause.....of the PQR of the NIT/Tender referred above.

We agree to submit the Security Deposit equivalent to 1% of the total contract value in addition to Security Deposit to be submitted by Bidder as per Clause.....of the NIT/T for fulfillment of all obligations in terms of provisions of the contract, in the event of(the Bidder) being selected as the Successful Bidder.

We confirm that we along with M/s.....(the Bidder), are jointly or severally responsible for successful performance of the contract.

We confirm that our company shall not participate in the above tender as a ‘Standalone Bidder’ or as a ‘Consortium bidder’ and also shall not authorize any other bidder to use our Technical capability for the above tender.

All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the referred NIT/Tender.

Signature of Managing Director/Authorized signatory of Parent / Subsidiary Company

ANNEXURE - 2**CHECK LIST****NOTE: - Tenderers are required to fill in the following details and no column should be left blank**

1	Name of the Tenderer		
2	Address of the Tenderer		
3	Type of the Firm/ Company		
(i)	In case of Individual Tenderer	His / her full name, address and place & nature of business shall be furnished along with the offer.	
(ii)	In case of Partnership Firm	The names of all the partners and their addresses, A copy of the partnership deed/instrument of partnership duly certified by the Notary Public shall be furnished along with the offer..	
(iii)	In case of Companies	a) Date and place of registration including date of commencement certificate in case of Public Companies (certified copies of Memorandum and articles of Association are also to be furnished). b) Nature of business carried on by the Company and the provisions of the Memorandum relating thereof.	
4.a	Details of Contact person for this Tender	Name : Mr/ Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
4.b	Details of alternate Contact person for this Tender	Name : Mr/ Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
5	EMD DETAILS	Mode of payment: Demand Draft/ NEFT/ RTGS/ OTHER Details of Transaction:	
6	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE	
	DESCRIPTION	APPLICABILITY (BY BHEL)	ENCLOSED BY BIDDER
7	Whether all pages of the Tender documents including annexures, appendices etc are read and understood	Applicable/ Not Applicable	YES / NO
8	Whether the format for compliance with PRE QUALIFICATION CRITERIA (ANNEXURE – 1) is understood and filled with proper supporting documents referenced in the specified format	Applicable/ Not Applicable	YES / NO
9	Audited Balance Sheet and profit & Loss Account for the last three years	Applicable/ Not Applicable	YES / NO
10	Copy of PAN Card	Applicable/ Not Applicable	YES / NO
11	Copy of GST registration	Applicable/ Not Applicable	YES / NO

SL. NO.	DESCRIPTION	APPLICABILITY (BY BHEL)	ENCLOSED BY BIDDER
12	Organization Chart of the tenderer's organization, including the names, addresses and contact information of the Directors/Partners shall be furnished along with the offer.	Applicable/ Not Applicable	YES / NO
13	Integrity Pact	Applicable/ Not Applicable	YES / NO
14	Offer forwarding letter / tender submission letter [Form No: F-01 (Rev 00)]	Applicable/ Not Applicable	YES / NO
15	Declaration by Authorised Signatory [Form No: F-02 (Rev 00)]	Applicable/ Not Applicable	YES / NO
16	Declaration by Authorised Signatory regarding Authenticity of submitted documents [Form No: F-02A (Rev 00)]	Applicable/ Not Applicable	YES / NO
17	No Deviation Certificate [Form No: F-03 (Rev 00)]	Applicable/ Not Applicable	YES / NO
18	Declaration confirming knowledge about Site Conditions [Form No: F-04 (Rev 00)]	Applicable/ Not Applicable	YES / NO
19	Declaration for relation in BHEL [Form No: F-05 (Rev 00)]	Applicable/ Not Applicable	YES / NO
20	Non-Disclosure Certificate [Form No: F-06 (Rev 00)]	Applicable/ Not Applicable	YES / NO
21	Bank Account Details for E-Payment [Form No: F-07 (Rev 00)]	Applicable/ Not Applicable	YES / NO
22	Format for seeking clarification [Form No: F-08 (Rev 00)]	Applicable/ Not Applicable	YES / NO
23	Capacity Evaluation of Bidder for current Tender [Form No: F-09 (Rev 00)]	Applicable/ Not Applicable	YES / NO
24	Power of Attorney for Submission of Tender/Signing Contract Agreement [Form No: F-25 (Rev 00)]	Applicable/ Not Applicable	YES / NO
25	Analysis of Unit rates [Form No: F-26 (Rev 00)]	Applicable/ Not Applicable	YES / NO
26	Tie Ups/Consortium Agreement are submitted as per format [Form No: F-22 (Rev 00)]	Applicable/ Not Applicable	YES / NO

NOTE : STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED **ABOVE APPLICABLE DOCUMENTS** ARE LIABLE TO BE SUMMARILY REJECTED.

DATE :

AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

ANNEXURE - 3**Feedback Form: From where did you get information reg. this tender**

1	NEWSPAPER ADVERTISEMENT (NAME)	
2	BHEL WEBISTE (TENDER NOTIFICATION)	
3	CENTRAL PUBLIC PROCUREMENT PORTAL OF GOVERNMENT OF INDIA (CPP PORTAL)	
4	EMAIL COMMUNICATION FROM BHEL	
5	ANY OTHER SOURCE	

TECHNICAL CONDITIONS OF CONTRACT

RATE CONTRACT FOR PROVIDING SERVICES OF REGULAR OPERATION, ROUTINE MAINTENANCE & MINOR BREAKDOWN REPAIRS OF CRANES AT VARIOUS BHEL-PSNR PROJECT SITES.

The intent of specification is to provide regular operation, day-to-day routine maintenance, and minor breakdowns of BHEL owned tyre mounted & crawler mounted cranes. The cranes for which the services are intended to be availed have been classified into different categories as mentioned below. Cranes that will be procured by BHEL PSNR at any later stage, before or after entering into this contract, shall also be suitably classified into one of the categories.

CATEGORY - A					
SL.NO.	CRANE TYPE	MAKE	MODEL	CRANE SL.NO.	PRESENT LOCATION
1	75 MT Tyre Mounted	TIL	RT 880	405157	Pipalkoti
2	75 MT Crawler	TATA	TFC280	280-C-1224	Gadarwara
3	75 MT Crawler	TATA	TFC280	280-C-1223	Panki

CATEGORY - B					
SL.NO.	CRANE TYPE	MAKE	MODEL	CRANE SL.NO.	PRESENT LOCATION
1	100 MT Crawler	ZOOMLION	QUY - 100	39	FGD Dadri
2	100 MT Crawler	ZOOMLION	QUY - 100	40	Tanda
3	100 MT Crawler	TATA	KH500	H15 -019	FGD Dadri
4	135 MT Crawler	KOBELCO	CKE 1350	GN02/01030	Gadarwara
5	135 MT Crawler	KOBELCO	CKE 1350	GN02/01059	FGD Dadri
6	135 MT Crawler	KOBELCO	CKE 1350	GN02/01037	Rapp Kota
7	135 MT Crawler	KOBELCO	CKE 1350	GN02/01055	Panki
8	135 MT Crawler	KOBELCO	CKE 1350- 1F	GN03/02322	Vizag
9	135 MT Crawler	KOBELCO	CKE 1350- 1F	GN03/02326	Obra

CATEGORY - C					
SL.NO.	CRANE TYPE	MAKE	MODEL	CRANE SL.NO.	PRESENT LOCATION
1	250 MT Crawler	KOBELCO	CKE-II 2500	JD04-02356	Panki
2	270 MT Crawler	MANITOWOC	2250	2251188	PSSR Krishnapatnam, shall be shifted to Khurja
3	270 MT Crawler	MANITOWOC	2250	2251266	Panki
CATEGORY - D					
SL.NO.	CRANE TYPE	MAKE	MODEL	CRANE SL.NO.	PRESENT LOCATION
1	600 MT Crawler	LIEBHERR	LR-1600/2	74529	Panki

Note: The above locations are current locations of cranes, the crane can be diverted to other sites/upcoming site i.e. as per requirement of cranes.

1.0 SCOPE OF WORK

- 1.1 **Providing Crane Operator, Maintenance Personnel and Helper services** for BHEL cranes at various sites on regular monthly basis.
- 1.2 **Carrying out Day-To-Day Routine (Fuel, Lubricants top up etc.) & Periodic Preventive (replacement of filters, lubricants etc.)/Running as well as minor break-down Maintenance/servicing** of BHEL owned Cranes as per Operation & Maintenance manual of respective cranes, as per crane check sheets formats enclosed **as annexures A to E** and as directed by BHEL Site Engineer, through deployment of Crane Category-wise Manpower on a regular Man-Month Rate basis, based on actual requirement. The above Check sheets (Annexures A to E) must be submitted to BHEL site engineer on daily, weekly, monthly, quarterly, half yearly and yearly basis i.e. as per frequency of check sheets.
- 1.3 **Extending and reducing Boom and Jib lengths** as and when required as per the instructions of BHEL Engineer.
- 1.4 **Troubleshooting of all minor hydraulic, electrical and mechanical breakdowns** and attending the problems as per requirement.
- 1.5 Any other small repairs to prevent any deterioration of equipment condition like paint touch up at peeled off/rusted portion of boom/jib pieces and inserts after thorough cleaning of the affected area etc. shall be in the scope of bidder. Consumables etc. for this purpose shall be arranged by BHEL.
- 1.6 Overhauling and major repairs that requires outside workshop facilities like press machine, machining, cutting, welding, grinding etc. and or any other expertise shall be excluded from the scope of the bidder.
- 1.7 BHEL shall arrange OEM supervision for major repairs, however bidder's personnel deployed at site shall be engaged in repair activities.
- 1.8 Bidder shall coordinate for carrying out under warranty inspection and repairs as per warranty scope, terms & conditions of Original Equipment manufacturer (OEM).
- 1.9 Local transportation for to and fro movement for personnel deployed at site and their local accommodation shall be arranged by contractor within the quoted rates.
- 1.10 In case deputed personnel goes on long leave (> 7 days) or leaves the services without informing BHEL, the contractor shall make suitable alternative arrangements within 3 days of service interruption at his own cost, including travel expense. In case contractor fails to provide above-mentioned services as desired by BHEL, BHEL shall have the right to hire such services from other agencies at the risk and cost of the contractor.
- 1.11 During leave of any regular person, necessary competent personnel is to be arranged by the contractor, after taking prior permission from BHEL, without any additional cost to BHEL, so that the work is not hampered at site.
- 1.12 Any loss or damage to BHEL or customer's properties due to negligence of the crew employed by the contractor is attributable to the Contractor. BHEL shall not be responsible for any accident/injury to the contractor's crew/staff during operation or otherwise. Contractor has to assume full responsibility of the safety of their crew/staff and to comply with security/safety regulations of BHEL and others site.

- 1.13 Contractor shall have to arrange entry gate pass for their crew/staff at the Construction plant site. Necessary support concerning forwarding of documents shall be given by BHEL.
- 1.14 The contractor shall comply with the Plant security regulations in force at site in entry, exit, movement & working inside the plant premises. The bidder shall also ensure that all persons engaged by him for the work behave properly with BHEL and their client. In case of any reported misbehavior; contractor shall immediately withdraw such employee/person from work.
- 1.15 Contractor shall ensure that payment and dues admissible to their crew deployed at site are made by the last working day of every month, failing which BHEL reserves the right to make such payments and dues to the crew. Such payments shall be back charged/recovered from bills of the contractor. On demand by BHEL, the contractor shall furnish pay roll sheet giving details of all payments made to the crew, duly signed by contractor.
- 1.16 In case the performance of any member of the crew is found to be unsatisfactory at any site, his services shall be discontinued by BHEL and no payment shall be made against deployment of such unacceptable person from the date he has been notified as unsatisfactory. Replacement of such persons shall have to be arranged by the contractor within 3 days.
- 1.17 In case any member of the crew is found to be indulged in malpractices, their services will be terminated with immediate effect without giving any notice. Also, in such cases, BHEL shall have right to decide to release/ not to release payment for services provided by such person. Replacement of such persons will have to be arranged by the contractor within 15 days.
- 1.18 The contractor shall arrange for medical facilities and insurance for his personnel at his own cost.
- 1.19 All requisite facilities at site (boarding/ lodging) shall be in the scope of the Contractor. All statutory requirements like EPF, insurance of contractor's personnel, ESI etc. need to be fulfilled by the contractor and shall be in their scope. The Contractor shall indemnify BHEL against Compensation liability on account of any accident/eventuality at site and guarantees that such expenses if occasioned due to any eventuality shall be borne by the Contractor at no extra cost to BHEL.
- 1.20 The contractor's crew shall report to the Construction Manager or to the engineer nominated by him on a daily basis at site. **Contractor shall also nominate a person reporting to FEX/PSNR, Noida and shall update all the activities in progress at all sites.**
- 1.21 The contractor shall carry out jobs as per site engineer's specific requirement by considering the safety measures like wind speed, work area surroundings etc. wherever there is requirement of SWP (safe work permit) before carrying out any activity relating to O&M of equipment, contractor shall comply with such requirements.
- 1.22 Contractor's operational supervisors and operators shall study and understand the risk involved at the site and on the equipment/vehicle with respect to work in executing the job and if any complication perceived, it should be brought to the notice of EIC/ site area manager before starting the job.
- 1.23 The contractor shall ensure that all newly recruited staff should undergo safety training and awareness of risk involvement in equipment operation before they are assigned the job in the field. Record for the same shall be submitted regularly to Site Engineer.

- 1.24 The contractor shall ensure that their operator / drivers should possess valid license and SDP (safe driving permit) and should comply with any other instructions of Site Engineer regarding safe operation of equipment.
- 1.25 The contractor shall ensure that only authorized operator occupy operator seat and operate the equipment. In case any person other than authorized is found operating the crane, the crane operator shall be liable for immediate dismissal and the contractor has to replace the operator within 7 days.
- 1.26 The contractor shall carry out maintenance of Equipments as per best engineering practices and ensure periodic scheduled maintenance of each equipment as per the OEM manual or as instructed by Site Engineer.
- 1.27 The contractor shall provide Personal Protective Equipments (PPEs) for their crew as per site requirement. These personnel shall be liable to follow all safety norms at site during performance of work and in case of noncompliance of above, **penalty as decided by BHEL** may be imposed for each case on the occasion of surprise check.
- 1.28 HOLIDAYS shall be as observed by BHEL at Site and normally Sunday or any one day a week shall be considered as holidays. However, in exigency, the crane may be required to be operated/ maintained/ serviced on such holidays. In such cases contractor shall ensure availability of their crew at site.
- 1.29 **Dismantling & Assembly of crane:**

- A) Providing O&M team (operator, helper & mechanic) support for Dismantling of the cranes, loading of crane components to the extent required for transportation and handing over of the same (after dismantling) to BHEL's transporter (for loading at origin site & onward transportation) and assembly & Commissioning of the crane at destination sites is included in present scope of work.

However, Vendor may be asked for providing Technical Expert needed for supervision of dismantling / assembly of crane at site as sought by BHEL FEX/ Site if found essential. Extra charges shall be paid by BHEL as per rate mentioned in table below.

SL. NO.	CRANE CAPACITY (MT)	SUPERVISOR RATE (INR) PER MAN-DAY	REMARKS
1	75 MT to 135 MT	2000/-	Deputation of supervisor is optional based on actual requirement as felt by BHEL/ Engineer and vendor shall deploy the same.
2	250MT to 270 MT	3500/-	
3	600 MT	5000/-	
To & Fro charges from vendor's works to destination site shall be reimbursed on actual basis limited to 3 rd AC fare (Tatkal) on submission of documentary evidence.			

Invoice for the visit of supervisor along with **field / service reports** stating duration of visit at site(s) and certified by **Site Engineer** to be raised to newly deployed site; for releasing of payment. Any other

relevant documents if required for processing of bill, to be submitted along with the invoice by vendor.

- B) **Supervisor & its O&M team should be responsible for Handing-Over/Taking-Over of crane and its spares & accessories. Preparation of list of spares & accessories and its proper packaging is the responsibility of the vendor.** In case of any discrepancies of spares & accessories at the time of Handing over of crane price of same shall be deducted from the vendor's bill.
- C) Loading of the Dismantled Crane Components at Releasing Site as well as Unloading from Trailers/Truck of the same at Destination site are to be supervised by the Vendor for proper handling with due safety precautions adhered to, and the loaded vehicle shall not leave site until clearance is given by Vendor.

Following points must be ensured during loading:-

- i. During loading the larger structural items i.e. boom, jib etc. should not be loaded together with smaller heavy articles such as counter weight/hook block etc in the same vehicle/trailer, except for if mentioned in work order for transportation. No overloading, overhanging or projected length shall be allowed beyond the length and width of the trailer.
- ii. Only nylon belts/straps must be used for lacing boom and jib components during transportation whereas arrangement of the same shall be in transport vendor's scope.
- iii. Proper sleepers must be used below the Boom & Jib sections and also wherever required whereas arrangement of the same shall be in the scope of transportation Vendor.

Note: The above clause (1.29) is also applicable for idle cranes (which is not being operated due to any reason and BHEL wants to deploy the same to needy site or at other PS-region site).

Exclusion: Providing assisting crane/s (including Hydra cranes), slings & D-Shackles other than available with crane; unskilled labour/ rigger required for dismantling and assembly work are excluded from present scope of work. BHEL site shall arrange to provide the same to facilitate Dismantling and Assembly of crane components. Repairing of major crane problems arises during dismantling or assembly of crane are also excluded from scope of the vendor, BHEL shall arrange deputation of OEM / other technical expert separately.

Note: *If the assisting crane/s (including Hydra cranes) for dismantling & assembly is to be arranged by vendor at any site then the cost incurred on behalf of it shall be reimbursed by BHEL on submission of Bill of hiring agency at actual. Vendor should mobilize such crane after taking written permission from BHEL site engineer about hiring charges of crane.*

2.0 SPECIAL CONDITIONS:

- 2.1 Contractor shall mobilize the manpower within seven working days from the notice of BHEL PSNR site. BHEL site to intimate contractor for demobilization the manpower by giving minimum 15 days notice period.

- 2.2 Working hours (for each crane) shall normally be 9 hours per day (including one hour Lunch Time) with six days working in a week. For crane operation beyond normal operating hours or on holidays with prior permission of the concerned BHEL site Engineer, the contractor shall be compensated on hourly basis. The compensation shall be worked out as follows:

Compensation per hour = Rate in Rs. per month / (26 X 8)

It is up to the discretion of BHEL site Engineer to keep required nos. of manpower during extended hours of working depending upon the nature of work. Compensation shall be paid only for those personnel.

- 2.3 Purchase of minor spares in case of any emergency/requirement/ urgency, on consultation/approval of BHEL Engineer is included in the scope of bidder. Minor spares/items net costing less than or equal to Rs.20, 000/- (Twenty Thousand only) excluding GST from local agencies shall be arranged by bidder and supplied to site with original bills. The payment of the supplied items shall be done on certification of BHEL Site Engineer at actual cost plus 5% of net item procurement cost exclusive of GST as service charges and courier charges as actuals, if applicable on production of bill. The payment shall be released within 30 days from the submission of bill by vender.

Note: Annual cost for such spares should be limited within 1% of specific crane's insured amount as per latest available BHEL- Special Contingency Policy / Contractor Plant and Machinery (CPM) Policy.

- 2.4 If any minor repair work on small item/component which can be carried by hand is required to be carried out in workshop outside plant premises within 100 km distance from site, then the same shall be carried out by the contractor and expenditure shall be reimbursed at actual on producing the bill plus 5% of the bill amount over & above the bill as service charge. For heavier items/component, transportation shall be arranged by BHEL site and no service charges over & above the actual expenditure shall be paid.
- 2.5 For any exigencies during execution of the contract, for requirement at any location other than place of work / site (for outstation tours only), if desired and instructed by BHEL Engineer, the contractor shall have to provide Consultancy/crane operation /maintenance services by deputing its personnel from an existing site. In such a case, the contractor will however be reimbursed expenses incurred for such work for person deputed, as below.
- (a) Travel expenses at actual shall be paid (limited to Sleeper Class to and fro train fare) with reservation /supplementary charges etc. subject to furnishing details regarding ticket numbers, journey details, amount of fare etc.
 - (b) Local conveyance charges (Actual bus / cycle rickshaw/auto rickshaw/ share taxi fare for local journeys at out station) as permitted by the BHEL Engineer.
 - (c) Accommodation shall be arranged by BHEL. If BHEL does not provide accommodation, per night accommodation charges shall be reimbursed at actuals to contractor on production of hotel bills limited to Rs.1000/- for metropolitan cities and Rs.700/- for any other place. In case of such travels, respective person shall not be considered as absent from site and monthly rates as applicable shall be paid.

The movement of Contractor's personnel outside construction site shall be subject to prior approval of BHEL Construction Manager.

- 2.6 **Contractor shall maintain records in consultation with Site Engineer and submit following documents to Site Engineer as well as copies to FEX/ PSNR, Noida on monthly basis.**

- (a) Spares availability/ Consumption/ Requirement Report on monthly basis (As per format Annexure – I).
- (b) Daily Crane Utilization Log sheet of each crane (As per format Annexure – II).
- (c) Monthly Crane Utilization Report (As per format Annexure – III).
- (d) Monthly Crane Maintenance Report (As per format Annexure – IV).
- (e) Monthly Consolidated Report (As per format Annexure –V).

2.7 BHEL shall provide following free of cost for the contractor to render identified services.

- a) All spare parts for day-to-day preventive as well as break down maintenance.
- b) All crane consumables like Lubricants, Hydraulic oils, Grease, Coolant, Cardium compounds etc. except as mentioned in clause 1.7.
- c) Space for temporary office construction or space in store office shed for staff, tools, spares etc. & parking of small capacity cranes.
- d) Extra manpower as helper if required, for boom shortening & lengthening, Jib assembly, dismantling.
- e) Wooden / Concrete sleepers for placing the crane assemblies.

3.0 MANPOWER REQUIREMENT:

Bidder shall deploy experienced work force for operation & preventive maintenance of cranes in each category of cranes.

Requirement of manpower to be deployed for each crane shall be as under or as directed by BHEL.

CRANE CATEGORY	OPERATOR	HELPER	MAINTENANCE PERSONNEL
CATEGORY - A	1	1	1
CATEGORY - B	1	1	1
CATEGORY - C	1	1	1
CATEGORY - D	1	1	1

BHEL reserves the right to increase or decrease the members of the team at its discretion, whenever/ wherever felt necessary. Wherever required and possible, BHEL shall engage one maintenance personnel at a particular site who shall maintain all the cranes available at that site irrespective of crane category. Suppose one no. crane under category-D and two nos. cranes under category-C is available at a particular site, BHEL shall engage maintenance personnel from higher category i.e. category-D and contractor shall maintain both category-D and category-C cranes available at that site. In such cases, the service charges for the team member added/ removed shall be paid/ deducted from the monthly quoted rates on pro rata basis. If the rate contract is awarded more than one agency then the agency, who has awarded rate contract of higher capacity cranes, shall provide maintenance personnel and he will be responsible for all cranes including cranes being operated by other agency at site.

4.0 ELIGIBILITY CRITERIA FOR DEPLOYMENT:

4.1 **CRANE OPERATORS:** Operators shall be capable of independently operating Mechanical/ Hydraulic Tyre Mounted/ Crawler Cranes. He must possess adequate experience and skills in

attending periodic service, minor breakdown/ repair, dismantling & assembly and should have high proficiency in supervision of all maintenance activities of cranes on which they are deployed. The operators deployed shall be able to read O&M manual, load charts and Safe Load Indicator/ Load Moment Indicator screen (SLI/ LMI).

CRANE CATEGORY	AGE	ADDITIONAL REQUIREMENT	EXPERIENCE
CATEGORY - A	Min. - 22 Years Max. - 50 Years	Possess valid Heavy Motor Vehicle driving license issued by competent authority.	Minimum three years of operation of 75MT or above capacity Tyre Mounted/ Crawler Crane.
CATEGORY - B			Minimum three years of operation of 100MT or above capacity Crawler Crane.
CATEGORY - C			Minimum three years of operation of 200MT or above capacity Crawler Crane.
CATEGORY - D			Minimum three years of operation of 250 MT or above capacity Crawler Crane.

- 4.2 **MAINTENANCE PERSONNEL:** Shall possess adequate experience and skills in attending periodic servicing, breakdown/ repair, dismantling & assembly and should have high proficiency in supervision of all maintenance activities of cranes on which they are deployed. Apart from mechanical works, he shall be able to troubleshoot electrical/ electronic faults and repair, wherever possible.

CRANE CATEGORY	AGE	EXPERIENCE
CATEGORY - A	Min. - 22 Years Max. - 50 Years	Maintenance of 75MT or above capacity Tyre Mounted/ Crawler Crane.
CATEGORY - B		Maintenance of 100MT or above capacity Crawler Crane.
CATEGORY - C		
CATEGORY - D		

- 4.3 **HELPER/ RIGGER:** Shall remain associated with the crane during operation, servicing/ maintenance and troubleshooting activities on day to day basis as per requirement and should have sufficient experience of the same. Age of the helper deployed shall be min.-21 years and max.-40 years.
- 4.4 **Necessary documentary evidence shall be provided for each member as mentioned in clause 4.1 to 4.3 above. They must be deployed at site only when BHEL is satisfied with the experience of the same. Bidder shall take prior permission from FEX/PSNR, Noida before replacing/ shifting any manpower of O&M team.**
- 4.5 **MEDICAL/ PHYSICAL FITNESS:** The contractor shall arrange for pre-employment medical check for all the personnel deployed against this contract and shall submit records for the same. The personnel to be deployed should possess good health, should be well behaved and polite in nature. Yearly eye vision test of operator is must and test report is to be submitted to site Engineer by contractor. Other medical tests at such periodicity as prescribed under schedule-VII of “BOCW Act, 1996” shall also have to be arranged by the contractor for all crane operators deployed under this contract.

5.0 RATE SCHEDULE & EVALUATION OF TENDER:

- 5.1 Contractor shall fully understand the description and scope of work before quoting. The scope of work and responsibility of the contractor as mentioned under these specifications shall be covered within the quoted / finally accepted rates. **Bidder shall quote against any or all category of crane.** The rates quoted against any category will be applicable for all the cranes falling under that category as categorized in this TCC.
- 5.2 The bidder shall quote all-inclusive single Lump sum rate for one month per crane for each category of crane as per the rate schedule only, in part II price bid & same shall be indicated in the un-priced rate schedule of NIT.
- 5.3 Evaluation shall be done based on single Lump sum monthly rate per crane quoted against each category of crane and contract shall be awarded separately to lowest bidder in each category or shall be awarded together in case same bidder is lowest in more than one category.
- 5.4 **Operator, Maintenance personnel & Helper rates per month will be fixed as per below mentioned percentage of quoted/ finally accepted Monthly rate per crane.**

CATEGORY OF CRANES	OPERATOR	MAINTENANCE PERSONNEL	HELPER	MONTHLY RATE
CATEGORY - A	52%	28%	20%	100%
CATEGORY - B	54%	27%	19%	100%
CATEGORY - C	62%	22%	16%	100%
CATEGORY - D	58%	24%	18%	100%

Note:-

- Above mentioned fixed monthly rates shall be applicable throughout the contract period as well as during extended period, if any.
- Copies of all the documents as mentioned in clause 2.6 a) to 2.6 d) (Annexure – I,II,III,IV) and a proof of mail or courier slip that these formats have been sent to FEX/PSNR, Noida is required to be submitted along with the bill.**
- The contractor shall submit his monthly RA bills with all the details required by BHEL (including monthly attendance, overtime etc. certified by BHEL Site Engineer) on specified date every month covering progress of work in all respects and areas for the previous calendar month
- Paying Authority shall be the Construction Manager of the Site. Any change in the paying Authority shall be intimated to the Contactor accordingly.

6.0 DEPLOYMENT DETAILS AND CONTRACT PERIOD:

- 6.1 The contract period of O&M services shall be effective for a period of one year from the date of LOI. BHEL shall reserve the right to extend the contract period for a further period of one year under the same rates, terms and conditions. However, such extension is subject to the acceptance of Contractor's satisfactory performance rendered at BHEL sites. All rates shall remain firm throughout the tenure of the contract including extension period, if any. However, BHEL at any time can terminate the service contract by giving one month notice period in case service provided is not satisfactory. Also BHEL reserves the right to short close the contract with a notice period of 60 days, without assigning any reason.

- 6.2 The O&M crew shall be deployed tentatively at site from November 2020 onwards. However prior intimation shall be given by BHEL as per requirement. The contractor is required to provide manpower as desired by BHEL within 15 days from the date of intimation.

7.0 TERMS OF PAYMENT:

- 7.1 Based on man months deployed and certification by Construction Manager at site, monthly payment shall be released to the contractor on pro-rata basis.
- 7.2 The payment for running bills will normally be released within 30 days of submission of running bill complete in all respects with all documents. It is the responsibility of the contractor to make his own arrangements for making timely payments towards labour wages, statutory payments, outstanding dues etc. and other dues in the meanwhile.
- 7.3 BHEL shall release payment through Electronic Fund Transfer (NEFT)/RTGS. In order to implement this system, Contractor shall furnish details pertaining to his Bank Accounts where proceeds will be transferred through BHEL's banker, as per prescribed formats.
Note: BHEL may also choose to release payment by other alternative modes as applicable

8.0 LEAVE:

The crew member should take prior permission from engineer in- charge of site for taking leave. Suitable replacement operator should be arranged by the contractor in case of no. of absent days of operator is more than 03 days. **In case of delay in deployment of requisite manpower a penalty @ 0.5% of monthly rate per week or pro-rata basis limited to maximum of 5% of the monthly rate shall be levied from the RA bill of the vendor**

9.0 SPARE PARTS & CONSUMABLES:

All consumables like filters, grease, hydraulic oil, gear oil, engine oil, coolant, diesel and cleaning consumables (cotton waste, jute, emery paper, rustolin, kerosene etc.) for day to day usage as well as break down maintenance will be provided by **BHEL on free of cost**. Suitable assisting crane, hydra if required for dismantling and assembly and Boom/Jib extension/reduction of crane shall also be provided by **BHEL on free of cost**.

10.0 TAXES AND DUTIES:

- 10.1.1** Price quoted should be inclusive of all applicable Taxes/charges but Excluding GST. The Contractor shall pay all other taxes, fees, royalty, commission etc. which may be levied on the contractor in executing the contract. In case BHEL is forced to pay any of such taxes, it shall be recovered from Contactor's bills or otherwise as deemed fit.

GST Shall be payable extra as per following:

- 10.1.2** Contractor/Vendor has to issue invoice indicating HSN/SAC code, Description, Value, Rate, applicable tax and other particulars in compliance with the provisions of relevant GST Act and Rules made thereunder. With the implementation of e way bill provisions, contractor shall comply with same as applicable.

10.1.3 Vendor has to submit GST compliant invoice within seven days from the due date of invoice as per GST Law. In case of delay, BHEL reserves the right of denial of GST payment if there occurs any hardship to BHEL in claiming the input thereof. In case of goods, vendor has to provide scan copy of invoice & GR/LR/RR to BHEL before movement of goods starts. Special care should be taken in case of month end transactions.

10.1.4 GST amount claimed in the invoice shall be released on fulfilment of all the following conditions by the Contractor : -

a. Supply of goods and/or services have been received by BHEL.

b. Original Tax Invoice has been submitted to BHEL.

c. Respective invoice has appeared in BHEL's GSTR - 2A for the month corresponding to the month of invoice. Alternatively, BG of appropriate value may be furnished which shall be valid at least one month beyond the due date of confirmation of relevant payment of GST on GSTN portal or sufficient security is available to adjust the financial impact in case of any default by the contractor.

10.1.5 TDS under GST law as applicable shall be deducted.

10.1.6 Contractor shall be solely responsible for discharging his GST liability according to the provisions of GST Law and BHEL will not entertain any claim of GST/interest/penalty or any other liability on account of failure of contractor in complying the provisions of GST Law or discharging the GST liability in a manner laid down thereunder.

10.1.7 In case declaration of any invoice is delayed by the vendor in his GST return or any invoice is subsequently amended/alterd/deleted on GSTN portal which results in any adverse financial implication on BHEL, the financial impact thereof including interest/penalty shall be recovered from the Contractor's due payment.

10.1.8 Any denial of input credit to BHEL or arising of any tax liability on BHEL due to on compliance of GST Law by the Contractor in any manner, will be recovered along with liability on account of interest and penalty (if any) from the payments due to the Contractor.

10.1.9 The admissibility of GST, taxes and duties referred in this chapter or elsewhere in the contract is limited to direct transactions between BHEL & its Contractor. BHEL is not responsible for any liability that may arise due to any transaction beyond the direct transaction between BHEL & its Contractor.

10.1.10 Variation in Taxes & Duties:

Any upward variation in GST shall be considered for reimbursement provided supply of goods and services are made within schedule date stipulated in the contract or approved extended schedule for the reason solely attributable to BHEL. However downward variation shall be subject to adjustment as per actual GST applicability.

In case the Government imposes any new levy/tax on the output service/goods after price bid opening, the same shall be reimbursed by BHEL at actual. The reimbursement under this clause is restricted to the direct transaction between BHEL and its contractor only and within the contractual delivery period only.

In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer but before opening of the price Bid, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same before opening of price bid. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

10.1.11 Modalities of Tax Incidence on BHEL:

Where GST law permits more than one option or methodology for discharging liability of tax/ levy/ duty; the contractor shall approach BHEL before choosing any option to discharge his tax liability. BHEL shall have the right to direct the contractor to adopt the appropriate option considering the amount of tax liability on BHEL as well as procedural simplicity with regard to assessment of the liability.

The option chosen by BHEL shall be binding on the contractor for discharging the obligation of BHEL in respect of the tax liability to the contractor.

11.0 PRICE VARIATION AND OVER RUN CHARGES

The rate quoted by bidders shall remain firm during contract period and extended period, if any. No overrun charges & price variation shall be payable/ recoverable.

12.0 SECURITY DEPOSIT

Security Deposit shall be applicable as per GCC clause 1.10.

13.0 PERFORMANCE OF THE VENDOR:

Performance of the vendor shall be measured as per attached **Annexure-VI**. Quarterly reports shall be received from site and if the performance of the vendor is found below par, the services of that vendor shall be withdrawn from that site and may be from other sites.

UNPRICED RATE SCHEDULE

CATEGORY OF CRANE (AS MENTIONED IN TCC)	ALL INCLUSIVE SINGLE LUMP SUM MONTHLY RATE PER CRANE (AS PER SCOPE MENTIONED IN TENDER SPECIFICATIONS) (M)	NO. OF CRANES IN EACH CATEGORY (N)	MONTHLY AMOUNT FOR ALL CRANES (Y=MXN)	YEARLY AMOUNT FOR ALL CRANES (Z=12XY)
CATEGORY - A		3		
CATEGORY - B		9		
CATEGORY - C		3		
CATEGORY - D		1		

NOTES:-

1. All the above quoted rates shall remain firm throughout the contract period including the extended period if any and no price variation provisions are applicable.
2. Rates shall be quoted both in figures and words. In case of mismatch between price given in figures and in words, the lesser of the two will be treated as valid rate. In case of any mismatch in Rate and amount on Price discrepancy, the same will be dealt as per clause No. 1.4 of GCC.
3. The scope of work and responsibility of the contractor as mentioned under this Tender Specifications shall be covered within the quoted / finally accepted rates. **Bidder shall quote against any or all category of crane.** The category/ categories to which the bidder will be quoting in Price Bid shall be specifically mentioned in the technical bid. **The rates quoted against any category will be applicable for all the cranes falling under that category as categorized in this TCC.**
4. Single Lump sum Monthly Rate per crane "M" shall be quoted in Rupees by the bidder.
5. **Operator, Maintenance personnel & Helper rates per month will be fixed as per clause 5.4 from the quoted/ finally accepted rates.**
6. **Evaluation shall be done based on the Single Lump sum Monthly Rate per crane "M" quoted by the bidder against each category of crane and contract shall be awarded separately to lowest bidder in each category or shall be awarded together in case same bidder is lowest in more than one category.**
7. **Bidder Confirmation regarding quoted/applied category:**

S. No.	CATEGORY OF CRANE (AS MENTIONED IN TCC)	Quoted/applied for category (Please tick "✓")	Remarks
1.	CATEGORY - A		
2.	CATEGORY - B		
3.	CATEGORY - C		
4.	CATEGORY - D		

ANNEXURE - I

<u>SPARES AVAILABILTY/ CONSUMPTION/ REQUIREMENT REPORT</u>				
MONTH :			SITE :	
SPARES AVAILABLE AS ON MONTH END				
SL.NO.	CRANE MODEL	PART NO.	DESCRIPTION	QTY.

ANNEXURE - II

Format No: PSNR/PROJECTS/FEX01
REV. NO. : REV 00

CRANE UTILIZATION LOG SHEET

SITE:

CRANE MODEL:

CRANE SL. NO.:

[illegible]

FUEL LEFT ON 1ST DAY OF MONTH:
FUEL LEFT ON LAST DAY OF MONTH:

MONTHLY CRANE UTILISATION REPORT**NAME OF SITE:****MONTH:**

SL. NO.	CRANE DESCRIPTION	M/C .SL. NO.	ENGINE HOUR METER READING (HMR) AT THE END OF	STANDARD HOURS PER MONTH (26DAYS x 8 HRS.)	IDLE HOURS			ACTUAL WORKING HOURS		FUEL CONSUMPTION FOR THE	%AGE AVAILABILITY FOR USE	FUEL CONSUMPTION PER	%AGE UTILISATION
					PREVENTIVE MAINT. HRS	BREAKDOWN MAINT. HRS	OVERHAULING HRS.	ENGINE ON CONDITION	ENGINE OFF CONDITION				
				(A)	(B)	(C)	(D)	(E)	(F)	(G)	H=100*(A-B-C-D)/A	I= G/E	J=100*(E+F)/(A-B-C-D)

(SIGNATURE OF BHEL SITE ENGINEER)

ANNEXURE - IV

[illegible]

CRANE OPERATOR/ MECHANIC

BHEL SITE ENGINEER

ANNEXURE - V

MONTHLY CONSOLIDATED REPORT

MONTH :

[illegible]

ANNEXURE-VI						
<u>VENDOR PERFORMANCE FEEDBACK</u>						
NAME OF PROJECT:						
NAME OF THE VENDOR:						
DETAILS OF CRANE UNDER THE VENDOR:						
WORK ORDER REFERENCE:						
PERFORMANCE FEEDBACK YEAR/QUARTER:						
SL NO.	DETAILS	PERFORMANCE FEEDBACK				
		5	4	3	2	1
1	MANPOWER					
1.1	Crane Operator Skill					
1.2	Crane Mechanic Skill					
1.3	Crane Helper Skill					
	TOTAL of 1					
2	QUALITY					
2.1	Crane periodic Maintenance as per schedule					
2.2	Housekeeping of inventory					
2.3	Skill during minor breakdown/troubleshooting of crane					
2.4	Work as per customer satisfaction					
	TOTAL of 2					
3	FINANCE					
3.1	Promptness in payment to employee					
3.2	PF and other financial statutory compliance					
	TOTAL of 3					
4	OTHERS					
4.1	Behavioral Aspect					
4.2	Responsiveness to statutory regulations and compliance level					
	TOTAL of 4					

(Signature of Site engineer)

(Signature of Construction Manager)

ANNEXURE-VI

QUARTERLY EVALUATION OF VENDOR PERFORMANCE					
NAME OF PROJECT:					
NAME OF THE VENDOR:					
DETAILS OF CRANE UNDER THE VENDOR:					
WORK ORDER REFERENCE:					
PERFORMANCE FEEDBACK YEAR/QUARTER:					
SL. NO.	CRITERIA	MAX. SCORE	WEIGHTAGE	SCORE OBTAINED	WEIGHTED SCORE
1	MANPOWER	15	3		
2	QUALITY	20	1.5		
3	FINANCE	10	1.5		
4	OTHERS	10	1		
TOTAL WEIGHTED SCORE (OUT OF 100)					
LESS: Score for Accidents attributable to Contractor during the reporting period (Major@ 3, minor @1)					
Major Accidents - Fatal, Permanent Disability, Major damage to Equipment					
Minor Accidents - All others.					
Net Weighted Score (out of 100):					
Overall Performance Evaluation:		Good/ Satisfactory/Unsatisfactory			
<u>Net Weighted Score</u>					
80% and above			-Good		
Between 60% to 80%			-Satisfactory		
60% and Below			-Unsatisfactory		
Evaluation of Bidders performance to execute the job shall be based on as below:					
a) Net Weighted Score from PSNR Sites > 60%, the services of vendor shall be Continued.					
b) Net Weighted Score from PSNR Sites =< 60%, the services of vendor may be terminated from that site and if required from other site.					

(Signature of ENGR/FEX-HQ)

(Signature of Head/FEX-HQ)

MAINTENANCE CHECK LIST

SCHEDULE OF DAILY ROUTINE CHECKING (CRANE WISE)									
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[illegible]

MAINTENANCE CHECK LIST**SCHEDULE OF WEEKLY ROUTINE CHECKING (CRANE WISE)**

CRANE MODEL:-				DATE:-
SL. NO.	IDENTIFICATION	CHECK ITEM	CHECKING METHOD	REMARKS
1	Fuel Pre Filter	Water Level	Visual Check-Drain Water From Fuel Pre Filter	
2	Drum Lock (Front,Rear, Third, Boom Drums)	Greasing	Apply Extreme Pressure Grease (EPG)	
3	Hydraulic Oil Tank	Drain	Drain the Hydraulic Oil Tank	
4	Slewing Ring Bearing	Grease	Apply Extreme Pressure Grease (EPG)	
5	Slewing Ring gear	Grease	Apply molybdenum Disulphide Grease (MDG)	
6	Lower Roller,Idler Roller	Check Oil Level	Apply Gear Oil	
7	Upper Roller	Check oil level	Apply Gear Oil	
8	Lower Spreader Frame, Hook Sheave, Hook Bearing, Ball Hook Bearing, Luffing Jib Drum Lock, Guide Sheave	Grease	Apply Extreme Pressure Grease (EPG)	

Signature of Operator

Signature of Mechanic

MAINTENANCE CHECK LIST**SCHEDULE OF MONTHLY ROUTINE CHECKING (CRANE WISE)**

CRANE MODEL:-				DATE:-
SL. NO.	IDENTIFICATION	CHECK ITEM	CHECKING METHOD	REMARKS
1	Fan Belt	Looseness , Damage	Visual Check- Push with Finger, Defle -ction of 10 to 15 mm	
2	Engine Mounting Bolt, Rubber Mount	Looseness, damage	Visual Check, Test Hammer	
3	Radiator, Oil Cooler	Oil Leak, damage	Visual Check- Clean the Radiator Core	
4	Power Divider Hydraulic motor , Reduction unit	Oil Leak, Unusual noise	Visual Check, Check by hearing	
5	Hydraulic Pump	Oil Leak, Unusual Sound	Visual Check, Check by hearing	
6	Valve etc.	Oil Leak	Visual Check	
7	Gantry Cylinder ,mast Arm Cylinder, Drum Lock	Oil Leak , Damage ,any wear	Visual Check	
8	Fuel Supply Pump & hose	Proformance & Damage	Operation Should be normal, Visual Check the damage	
9	Swing Alarm Lamp	Alarm Sound , Filament is gone	Operation, Visual Check - Flasher fuction properly or not	
10	Swivel Joint	Oil Leak	Visual Check	
11	Slewing Ring Bearing	unusual Noise	Check by Hearing	
12	Crawler shoe	Extension , Damage, Wear	Visual Check- Slackening of 10 to 20 mm	
13	Main Hoist Wire Rope, Auxilliary hoist,luffing Jib Hoist, (All Wire Ropes), Boom Guy Line, Luffing Jib Guy Line, Jib Guy Line.	All to be Lubricate	Apply Extreme EPG- Pressure Multipurpose grese (Lithium Base Grease or Cardium compound as applicable.)	

Signature of Operator

Signature of Mechanic

ANNEXURE-D				
MAINTENANCE CHECK LIST				
SCHEDULE OF QUARTERLY ROUTINE CHECKING (CRANE WISE)				
CRANE MODEL:-				DATE:-
SL. NO.	IDENTIFICATION	CHECK ITEM	CHECKING METHOD	REMARKS
1	Drive Sprocket, Crawler Idler, Upper & Lower Rollers	Oil Leak, Damage	Visual Check-Inspect Oil leak & Damage	
2	Slewing ring Bearing Mounting Bolt	Looseness, Falling Off	Visual Check-Any Missing / damage, Clean and Secure	
3	Winch Reduction Unit (Front, Rear, Boom)	Check Oil Level	If Oil Level is below the red mark add with lub oil Gear Oil # 90 (GO)	
4	Engine	Replace oil	Replace with Engine Oil SAE # 30 (MO) - Change the Oil Filter also.	
5	Battery inspection	Check up Charge Condition	Check Battery Electrolyte Level. Add If Required.	

Signature of Operator

Signature of Mechanic

MAINTENANCE CHECK LIST**SCHEDULE OF HALF-YLY & YLY ROUTINE CHECKING (CRANE WISE)****CRANE MODEL:-****DATE:-****HALF YEARLY**

SL NO.	IDENTIFICATION	CHECK ITEM	CHECKING METHOD	REMARKS
1	Accumulator	Oil Leak, Damage	Visual Check-inspect for Oil Leak	
2	Frame	damage & Crack	Visual Check-Inspect Car Body & Crawler Frame for Crack	
3	Fuel Tank	Drain	Loosen the Drain Plug, Drain water & Sediment From Tank	

YEARLY

SL NO.	IDENTIFICATION	CHECK ITEM	CHECKING METHOD	REMARKS
1	Radiator	Replace Coolant	Drain after cool- replace by Soft Water	
2	Swing reduction Unit	Replace Oil	Replace with Gear Oil #90(GO)	
3	Winch Reduction Unit (Front, Rear, Boom)	Replace Oil	Replace with Gear Oil #90(GO)	
4	Power Divider	Replace Oil	Replace with Gear Oil #90(GO)	
5	Hydraulic Oil Tank	Replace Oil	Replace with Hydraulic Oil #46(HO)	
6	Propel Reduction Unit	Replace Oil	Replace with Gear Oil #90(GO)	
7	Winch Reduction Unit (Luffing jib Drum)	Replace Oil	Replace with Gear Oil #90(GO)	
8	All Sheaves, Mast Poit Sheaves, Cable roller , Auxilliary Sheave, Boom & jib point Sheaves, Guide Sheaves, Guide Roller, Strit Point Sheaves,	All to be Grease	Apply Extreme EPG - Pressure Multipurpose grese (Lithium Base Grease)	
9	Counter Weight Handling Link.	Lubricate	Apply Extreme EPG - Pressure Multipurpose grese (Lithium Base Grease)	

Signature of Operator

Signature of Mechanic