

BEML LIMITED

**Regional Office, PB No.05,
Jingurdha Colliery,
Singrauli, Dist. Singrauli- (MP) 486889
Phone: 07805-272668, Fax: 07805-272282, TIN:27390264883**

Ref. BEML/MS-1/20CuMRS/100/6300028105

Date: 18.06.2019

To:

Dear Sir,

Sub : E-Tender through BEML SRM for Repairing of Two (02) Nos. of
Dipper assy of 20CuM Rope Shovel.

BEML Ltd., a Govt. of India Mini Ratna Public Sector Company under Ministry of Defence is planning to repair of 02 (Two) nos. Dipper assy of 20cuM Rope Shovel under MARC at Jayant & Dudhichua Projects, NCL. Firms may download the tender documents and submit the tenders online through BEML SRM System.

Please go through the instruction and submit your bid in SRM System complete in all respects **before 14.00 Hrs. on 28.06.2019.**

Thanking you,

Yours faithfully,

For BEML LIMITED

REGIONAL MANAGER

Encl: Tender Document – 14 pages.



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TENDER DOCUMENT

FOR

**REPAIR OF TWO NOS.OF DIPPER ASSY OF 20 CUBIC
MTR ROPE SHOVEL
UNDER MARC AT JAYANT & DUDHICHUA
PROJECTS, NCL.**

CLOSING DATE & TIME

28.06.2018 at 14.00 Hrs.

TECHNICAL BID OPENING DATE & TIME

28.06.2019 at 15:00Hrs

PRICE BID OPENING DATE & TIME

29.06.2019 at 14:00Hrs

This Tender Document contains 14 Pages



BEML LIMITED

Regional Office, PB No. 5, Jingurdha Colliery, Singrauli, Dist. Singrauli- (MP) 486889

Limited Tender Notice

Tenders in *open tender two bid system* are invited from Firms who have previous experience in Repair of assemblies and sub assemblies of Heavy Earth Moving Machinery.

Description of Work:

Repairing of Two Nos. of Dipper assy of 20cuM Rope Shovel (Model 295HD).

I. Scope of work for Dipper no.1 at Jayant Project, NCL.

1. Repair and rectification of dipper crack (one meter long on right side at lip-casting side wall joint at front end) as per the detailed procedure furnished in annexure 'A'. The recommended electrode and procedure to be adhered.
2. Welding of T1 Steel plates on to the Dipper Assy as per BEML drawing no. 197ZZ01009.
3. Supply of T1 Steel plates (appx 2000 kg) is in firms scope.
4. Welding electrodes to be used are as follows:
E309L /E309LT for welding of wear plates on to the casting.
E9018G / E9015 for welding of wear plates on to the Dipper side plate.
5. Welding of T1 Steel plates on the base plate of dipper-door. Supply of T1 steel plates (800 kgs) is in firms scope. Latch bar area of door to be additionally reinforced with 20mm T1 steel plate.
6. Preparation of latch-box and latch bar insertion area & fitment of latch-box insert. Latch box insert will be provided by BEML.
7. Bush press-work in dipper-door (4 nos.). 4 nos. Steel bushes will be provided by BEML.
8. Bush press-work in dipper (2 nos.). 2 nos. bushes will be provided by BEML.
9. Bush press-work in dipper's insert (2 nos.) of dipper's front bore. 2 nos. bushes will be provided by BEML.
10. Hard-Facing of dipper's entire bottom area & latch area of dipper-door. Recommended hard-facing electrodes to be used are Zedalloy550/Zedalloy 550LH of ADOR make or LowTherme- 617. of D&H or Bor C.

II. Scope of work for Dipper no.2 at Dudhichua Project, NCL.

1. Welding of T1 Steel plates on to the Dipper Assy as per BEML drawing no. 197ZZ01009.
2. Supply of T1 Steel plates (appx 2000 kg) is in firms scope.
3. Welding electrodes to be used are as follows:
E309L /E309LT for welding of wear plates on to the casting.
E9018G / E9015 for welding of wear plates on to the Dipper side plate.
4. Welding of T1 Steel plates on the base plate of dipper-door. Supply of T1 steel plates (800 kgs) is in firms scope. Latch bar area of door to be additionally reinforced with 20mm T1 steel plate.
5. Preparation of latch-box and latch bar insertion area & fitment of latch-box insert. Latch box insert will be provided by BEML.
6. Bush press-work in dipper-door (4 nos.). 4 nos. Steel bushes will be provided by BEML.
7. Bush press-work in dipper (2 nos.). 2 nos. bushes will be provided by BEML.
8. Bush press-work in dipper's insert (2 nos.) of dipper's front bore. 2 nos. bushes will be provided by BEML.
9. Hard-Facing of dipper's entire bottom area & latch area of dipper-door. Recommended hard-facing electrodes to be used are Zedalloy550/Zedalloy 550LH of ADOR make or LowTherme- 617. of D&H or Bor C.

Important: Welding of plates to casting shall be done cautiously to avoid generation of casting cracks which is possible by low heat input welding and phase manner welding such that casting should not get heat.

Inter pass temperature during welding should not exceed 100°C. Water can be applied in the area adjacent to weld bead (in the form of wet gunny bag, wet cotton waste, wet sand etc) to bring down the inter pass temp to room temperature.

Bid evaluation will be carried on individual item basis. Awarding of work order based on the L1 policy individually for both dipper assemblies

Last date & time for on line submission: **28.06.2018 at 14.00 HRS. for online submission of tender documents.**

EMD & Security Deposit :

Tenderers are required to submit an amount of Rs.5000/- towards Earnest Money Deposit in the form of Digital transfer in favour of BEML Limited and copy of the same along with Technical Bid.

BEML Bank Account details:

Account number: 10773219053

Branch: SBI MORWA

IFSC Code: SBIN0003767

MICR Code: 486002516

As per guidelines of the Government Of India under MSME act, Micro & small enterprises registered under MSME scheme with less than rupees two crores turnover per annum are exempted from payment of EMD. **TO AVAIL THIS FACILITY THE FIRM SHOULD FURNISH COPY OF CURRENT MSME CERTIFICATE.** Without this certificate and not full filling the eligibility norms should deposit the EMD amount.

Eligibility:

The tenderers having previous experience in Repair of assemblies and sub assemblies of Heavy earth moving machinery.

Submission of Bid

Please upload all the technical bid documents in the Notes and Attachments at RFx information in the system. Please ensure that no price details are mentioned in any of the documents uploaded as part of the Bid.

Following documents should be uploaded in collaboration folder on SRM platform:

- a) **Scanned copy of the entire tender document duly signed by the bidder. Any alteration, erasure or over-writing will render the tender invalid. Alteration neatly carried out and duly attested over with full signature of the bidder however is permitted.**
- b) **Copy of the EMD fee digital transfer transaction slip as indicated in the NIT is to be uploaded along with technical documents (or) current MSME certificate for availing exemption on EMD fee as per the guidelines of the Government Of India as mentioned above at EMD.**
- c) **The bidders shall submit relevant records in proof of complying with eligibility criterion conditions as per NIT.**
- d) **Firm has to enclose the copy of bank account details, PAN card and GST registration.**
- e) **Firm has to quote for two (02)nos. line items**
 - i. **Dipper assy no.1 for lip casting repair and strengthening at Jayant project.**
 - ii. **Dipper assy no. 2 for strengthening at Dudhichua project.**

General Terms & Conditions:

1. Please quote the price details in 'Price Conditions' in the system only against the respective items provided therein.
2. Bids of the bidders will be opened first on the opening Date/Time.
3. The bidder shall accept all the terms and conditions of the tender.
4. Before making the offer the bidders are advised to carefully go through the terms and conditions, which form part of the agreement. For any further details required, Tender issuing officer of BEML Ltd., may be contacted in person or through telephone nos. 07805-276668 / or email singrauli@rm.beml.co.in.
5. BEML reserves the right to assess the capacity and capability of the parties for pre - qualification. The company also reserves the right to accept or reject any or all the tenders or any part thereof at any stage of process without assigning any reason whatsoever. The company has no obligation to accept the lowest tender. Offer of the Bidder if prima-facie found not comparable with the quantum of work envisaged and the bid is an effort to be L-1, then the offer is liable to be rejected. BEML Ltd decision in this regard shall be final and binding.
6. The bidders are required to enter the price and taxes for all the items listed in the 'Price Conditions' in the SRM System. The price should be quoted for each item after careful study of the actual job requirement so that, in case the contract awarded, contractor should not express any difficulties in execution of the contract.
7. The GST shall be excluded from the rates, which will be paid extra at the applicable rate.
8. In the event of furnishing false information / incomplete information, the offer(s) shall be rejected.
9. BEML Ltd. Reserves the right to reject any bid, which is technically unacceptable and unworkable. Further BEML Ltd. Also reserves the right to reject any or all bids without assigning any reasons thereof.
10. BEML Ltd shall not be responsible for any acts and omissions of the staff of bidders and liabilities arising out of the acts and omissions as such will be borne by the bidders.
11. Price bids of the technically successfully qualified bidders only will be opened.

All pages of Tender Document if any shall be signed by the tenderer with seal. The decision of Regional Manager, BEML Singrauli will be final and binding in finalizing the offer.

Other Information:

The intending Tenderers should note the following:

- a) Issue of Tender document to any Tenderer does not automatically qualify such Tenderer for opening of their Tender document.
- b) Submission of Tender document, after due date and time are liable for rejection.
- c) Postal transactions for issue of Tender documents or receipt of filled in Tender document shall not be entertained.
- d) Successful tenderers shall have registered with sales tax authorities of the state government.
- e) BEML LIMITED, Singrauli may refuse issue of Tender document to any applicant and is not bound to accept the lowest Tender offer and reserves the right to reject any or all Tenders, or to accept wholly or partially any of the Tenders without assigning any reason whatsoever.

Signature:

**Regional Manager
BEML LIMITED,
Singrauli**

Tender Document

(Techno-commercial – Response to be submitted)

1.0 Title of Work:

Repair of Two Nos dipper assy of 20 CUM Rope Shovel.

1.1 CONTRACTOR

Shall mean the Firm/ Repairer whose offer has been accepted by BEML and the term includes the contractor's authorized representative, successors, heirs, assignee, executors and administrators, unless excluded by the contract.

1.2 SUB-CONTRACTOR

Means the person/firm named in the contract/ Work order for executing the work or any persons/firm to whom any part of the contract /work order has been given by the contractor, subject to the prior consent given by BEML in writing and the term includes the sub-contractors authorised representative, successors and assignees.

1.3 PROJECT – IN –CHARGE.

Means the person appointed for the duties set forth in the contract/ work order on its behalf and whose authority is notified, in writing to the contractor by BEML.

1.4 CONTRACT

Means written agreement between BEML AND CONTRACTOR/FIRM/REPAIRER made from time to time.

1.5 REPAIR VALUE

Means the mutually agreed price between BEML and the Contractor for the repair work as per the Scope of works.

1.6 WORKMEN

Personnel engaged by contractor for execution of the Contract, to include Welders, Fitters. Supervisory & the administrative staff and / or any other person(s) deployed by that Contractor for execution of this contract.

1.7 GUARANTEE PERIOD

5000 hrs of operation on the Machine from the date of fitment after the repair or one year from the date of acceptance of repaired dipper assy for each dipper assy, whichever is earlier.

1.8 PROJECT SITE

Means the place and land in Jayant & Dudhichua Projects of NCL Ltd where the shovels are placed.

1.9 EQUIPMENT

20CuM OR 295HD Rope Shovel

2.0 SCOPE OF WORK BY THE FIRM

2.1 Repairing of two Nos dipper assy's of 20cuM Rope Shovel by as detailed scope of work.

2.2 MANPOWER: Adequate skilled, semi skilled and unskilled man power to execute the project as per time schedule indicated in the contract which include supervisory, non-supervisory, Qualified Electrical staff, Qualified Fitters, welder, helper, Painter etc.

The contractor shall deploy the above manpower to carry out the complete work in one/two/three shifts as required. They shall not be under aged and shall meet the prevailing Labour Laws/Act/Regulations/PF rules.

2.3 SAFETY AND SAFETY EQUIPMENTS.

Knowledge of Safety rules and regulations and ensuring their implementations and the availability of Safety Equipments, like SAFETY GLOVES, SAFETY SHOES, SAFETY GOGGLES, SAFETY CAPS (HELMETS), FIRST AID BOXES AND TURNING & GRINDING EQUIPMENT.

The contractor shall adhere to various other Safety aspects as required.

2.4 SECURITY

It shall be the responsibility of the Contractor to safeguard, safe handling, safe protection of the their belongings thus taken for repair from theft, damage, vandalism etc., till they are repaired/ inspected and handed over to BEML.

2.5 INSURANCE

It shall be the Contractors responsibility to arrange for insurance cover for all the personnel engaged in repair job and related Equipments. The insurance should also cover third party liabilities.

3.0 SCHEDULE/ TIME PERIOD FOR DIPPER ASSY REPAIR:

Each Dipper assy has to be repaired within four weeks after releasing of work order from BEML.

4.0 SCOPE OF WORK BY BEML: Required snubber assy spares, bushes, electrical power for welding machines, grinding machines, electrode heater and latch box.

5.0 CRANAGE.

The BEML shall arrange his crane thru NCL to complete the dipper assy's repair job as and when required.

6.0 TERMS AND CONDITIONS:

6.1 TECHNICAL TERMS

6.1 INSPECTION

Inspection Authority.

Project-in-Charge (BEML) of Shovel Maintenance, Singrauli is authorized to certify the repair Work carried out and all materials used and process adopted during Repair.

6.2 COMMERCIAL TERMS

6.2.1 PERFORMANCE GUARANTEE (GUARANTEE PERIOD)

The repaired job shall give a service life of 5000 working hours on the Machine or one year after delivery whichever is earlier for each repaired dipper assy. Any repair of the dipper assy for firms scope during Guarantee period shall be carried out free of cost.

If the contractor/Firm fails to remedy the defects, BEML is entitled to remedy the defect or damage or order the remedies through third parties on contractors account at actual cost for such work. This shall, however not relieve contractor of his obligations regarding guarantee.

6.2.2 Delivery schedule and Penalty:

Repair job has to be completed within four weeks after releasing of work order from BEML for each dipper assy. Dipper assemblies will be handed over to firm for repair job on staggered manner incase both dipper assy's awarded to single firm.

For every week of delay, over and above the allowed as in above, a penalty of 0.5% of the order value shall be levied, subject to a maximum of 5% of the value of the repair cost for each dipper assy.

6.2.3 PAYMENT TERMS AND CONDITION:

i) 90% of order value after adjusting the EMD amount, subject to acceptance certificate issued by Project-in-charge (BEML) for having completed the repair work. Specifying all details such as time period specs etc.,

ii) 10% payment after completion of guarantee period of 5000 working hours or one year whichever is earlier.

6.3 GENERAL TERMS

6.3.1 On receipt of the contract/work order, the contractor shall register as per WORKS CONTRACT ACT or any other prevailing rules in that state, with the concerned state government to comply with the labour laws and rules, mobilize required man power (Supervisory and Non – Supervisory) and other infrastructure as required.

6.3.2 The contractor shall carry out repair job of the dipper assy strictly adhering to STANDARDS and also as per the advice from time to time by Project in-charge (BEML).

Return to BEML in safe condition, the repaired dipper assy, all documents like drawings, specifications and any unused old materials (if any) issued by BEML after the repair work/ contract period or as and when demanded.

6.3.3 CONFIDENTIAL CLAUSE.

The contractor shall use all technical information, drawings and other advices / information provided by BEML only for execution of this contract. The contractor shall not pass on any data, material or information or drawings to other agency or use for any other purpose.

6.3.4 WAGES FOR WORKMEN AND WORKMEN COMPENSATION

(a) WAGES FOR WORKMEN.

It will be the obligation of the contractor to pay reasonable wages to the workmen employed by them. However, such wages shall not be less than the wages payable under the Minimum Wages Act, 1948 or the wages notified by the respective State/central Governments who are the concerned authorities for notifying the minimum wages payable to the workmen possessing different skills and who are engaged in executing the contract .The contractor shall also be bound by the statutory provisions of the Contract Labour Regulation and Abolition Act, Apprentices Act, PSU Act, PF ACT etc., concerning the employment of the Labour by the contractor. All the obligations under the different Act provisions shall be that of the contractor and the contractor shall indemnify BEML against any or all claims in this regard. The contractor shall also furnish the documentary evidence regarding the wages paid, correctness of the wages paid, PF and ESI payment in respect of the labour engaged for the purpose of executing the contract.

These reports shall be submitted to the Project-in-Charge (BEML). It shall also be the responsibility of the contractor to obtain statutory approvals as may be required in this behalf and BEML will in no way responsible for this action and BEML will be discharged of and indemnified against all such responsibilities.

(b) WORKMEN COMPENSATION

It is also agreed that BEML shall not be liable for any compensation to be payable in respect of any workmen employed by the contractor and it shall be the sole responsibility of the contractor for payment of compensation if any, arising during the course of execution of the contract. For this purpose, the contractor shall indemnify BEML during the currency of the contract against all such claims made by any person(s) employed by the contractor in execution of the contract.

BEML shall not be responsible for providing employment to contractor's labourers and or payment of any retrenchment benefits, and it shall be the duty and responsibility of the contractor to pay all terminal benefits at the time of completion of contract and shall produce satisfactory proof for having paid so, before the final bill is settled.

6.3.5 SUSPENSION OF WORK

The contractor shall on written order of the Project-in-charge (BEML), suspend the progress of the works or any part thereof for such time or times and in such manner as the Project-in-Charge (BEML) may consider necessary and shall during such suspension properly protect and secure the work, so far as is necessary in his opinion.

6.3.6 DELAYS IN THE CONTRACTORS PERFORMANCE

The TIME SCHEDULE for REPAIR of the dipper assy as stipulated in this contract Clause Number and amendment thereof shall be the ESSENCE OF THE CONTRACT.

Except as provided under force majeure clause a delay by the contractor in the performance of its delivery obligations shall render the contractor liable to the imposition of penalty as per the clause No 6.2.2.

6.3.7 ASSIGNMENT SUB-LETTING AND SUB-CONTRACTING

The contractor shall not assign the contract either wholly or part thereof or any benefit or interest therein or there under without the prior written approval of BEML.

The contractor shall not sublet the whole part of the contract. However, where otherwise provided in the contract/work order the contractor may sublet a part of the contract with prior approval of BEML. But such an approval if given shall not relieve the contractor of any of the liabilities and obligations under the contract and he shall be responsible for the acts defaults and neglects of the sub-contractor, his agents or workmen.

6.3.8 INDEMNITY

The contractor shall indemnify BEML at all times against all claims made by the contractors personnel and third parties in respect of any injuries accidents or any other claim in the form of compensation.

7.0 FORCE MAJEURE

The contractor shall not be responsible for any delay in execution of this contract if the delay is caused as a result of Force Majeure.

“Force Majeure” means an event beyond the control of the Contractor, such as Floods, wars or revolutions, epidemics, strikes (caused by other than contractors own employees/ workmen), terrorist attack etc.

7.1 ARBITRATION CLAUSE

If BEML and the contractor are not able to resolve any contract dispute amicably within a reasonable period of time, such disputes shall be referred to a sole Arbitrator to be appointed by BEML and the proceedings before the Arbitrator shall be governed by the provisions of Arbitrations and conciliation Act 1996, in which event the Arbitration proceedings shall be held at Bangalore and the Arbitrator shall be required to give a reasoned award. Courts in Bangalore alone shall have jurisdiction in the matter.

7.2 APPLICABLE LAW

The contract shall be interpreted in accordance with the laws prevailing in India.

7.3 JURISDICTION OF COURTS

The courts in Bangalore only will have jurisdiction.

REGIONAL MANAGER

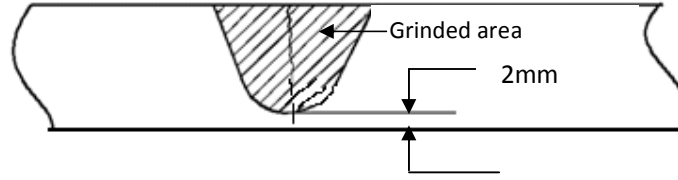
SINGRAULI

Annexure 'A'

The following rework procedure may be followed for casting cracks.

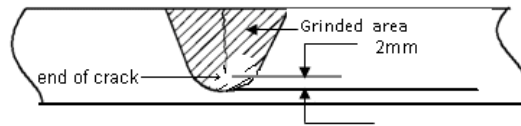
Welding procedure for repair of weld cracks observed:

1. If the cracks have penetrated throughout the thickness of casting, remove the cracks till the remaining thickness of plate is 2mm as shown below and make a "V" groove shape for welding by grinding.



(OR)

1. If the cracks have not penetrated throughout the thickness of casting, crack removal to be done 2 mm extra below the depth of the crack as shown below and make a "V" groove shape for welding by grinding.



2. Carry out Dye Penetrant test (DPT) to ensure complete removal of cracks.
3. Clean the area.
4. Carryout welding using austenitic manganese steel electrode similar to composition of the casting by SMAW process (e.g. SMA of D & H secheron & MODI MN OF MODI ARC ELECTRODES). As an alternate, E309LXX filler metal may be used. (Ref Table No: 01)
5. Grind finish the welded area and ensure a defect free welding by DPT.

Precautions:

1. Crack removal should be carried out by grinding completely.
2. Do not preheat.
3. Inter pass temperature during welding should not exceed 100°C. Water can be applied in the area adjacent to weld bead (in the form of wet gunny bag, wet cotton waste, wet sand etc) to bring down the inter pass temp to room temperature.
4. Remove the slag after each and every pass.
5. Employ stringer beads and use short arc. Do not carry out continuous welding to avoid excess heat buildup.

Note:

Table No: 01 - Welding electrodes to be used for repair

S.No	Brand Name	Current range for Electrode size 3.15 mm ø	Current range for Electrode size 4.00mm ø	Manufacturer
1	SMA	80-100A	110-140A	D & H SECHERON
2	MODI MN	80-100A	110-140A	MODI ARC ELECTRODES
3	D & H 309 L	80-100A	110-140A	D & H SECHERON
4	DURINOX 309L	80-100A	110-140A	WELDCRAFT PVT LTD.