



BRAITHWAITE & CO LIMITED

(A Government of India Undertaking under Ministry of Railway)
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CIN: U74210WB1976GOI030798

Tender Enquiry No: BCL/PUR/Rev_p_Cr_F42/18/10/1

Dt: 03.11.2018

Sealed Tenders are invited in Two bid system for Revamping of 1no 10 Ton EOT Crane no F-42 in Bay No-4 with supply of spares etc. on turnkey basis.

The jobs are to be carried out at respective shops of BCL-CW. Bidders are requested to visit site and inspect and understand the job to be performed before submitting offer. Bidders shall contact Works Manager(I/C)(VW-CW) / Manager (Maintenance) (CW-VW). No claim shall be entertained afterwards.

(i). Closing of tender Box: 14.30 hrs. on 16.11.2018. (ii) Opening of Part-I bid : 15.00 hrs. on 16.11.2018

The offer should comprise of parts as under:

(a) Part-I : Techno-commercial bid . (b) Part-II: Price bid

Both Part – I & part – II shall be inserted separately in two (2) envelopes, being sealed and super-scribed with our Tender No. and Part No. These two envelopes bids shall be put into a 3rd envelope, which should also be sealed & super-scribed with **Tender No, Due Date & Box No.**

Tender will be considered cancelled if the documents required for Part – I (Techno Commercial Bid) & Part – II (Price part) bids are not placed in respective / proper envelopes.

Sealed Tender, addressed to **Sr Manager (Purchase), Braithwaite & Co. Ltd., 5, Hide Road, Kolkata – 700 043** may be dropped in our **Tender Box No. 2** (in case of hand delivery) or may be sent by Registered post but must reach us **positively** within **16.11.2018 (due date) up to 14.30 hrs.** No offer shall be accepted after closing of the Tender Box in whatsoever mode of receipt.

The techno commercial bid (Part –I) shall be opened on **16.11.2018** at 15.00 hrs. Tenderers may depute their authorized representative to be present during opening of the tender. The price bid(s) (Part – II) shall be opened for techno- commercially acceptable bidders only for which opening date and time will be intimated in due course.

A. QUALIFYING CRITERIA and CREDENTIALS for WEBSITE BIDDERS:

Bidders who are quoting against website display should submit all papers related to their credential and meet the following eligibility conditions and shall submit the relevant documents along with Techno commercial Bid:

Financial Eligibility:

The bidder should have average turnover of Rs. **3.78** lakh during last three years ending on 31.03.2018 and also should have earned net profit in any of the last three years.

The bidder should submit a copy of audited / chartered accountant certificated Balance Sheets and Profit & Loss Accounts for the last 3 years ending on 31.03.18. The bidder should also have positive net worth as on 31.03.2018. Income Tax Return copies are to be submitted for last 03 Assessment years.

Technical Eligibility:

- (i) Experience of having successfully executed similar works (defined below) during last (7) seven years ending **31.03.2018**, fulfilling any of the following criteria.
- a) Three similar executed works each costing not less than **Rs.5.04 lakh** against each such job.
OR
- b) Two similar executed works each costing not less than **Rs.6.3 lakh** against each such job.
OR
- c) One similar executed works costing not less than **Rs.10.08 lakh** against such job.
- The term "similar works" means works of following nature: "Revamping / Repair/AMC of EOT of Hoisting Capacity not less than 10T Crane".
- (ii) The bidder should submit a copy of Work Order / Purchase Order & completion certificates / certified bill that the bidder has successfully executed the same as per the above technical eligibility condition.
- (iii) The bidder should have registration with PF, ESIC, GST. Bidder should also have PAN Card. Copies of the same are to be enclosed with the Techno-commercial Bid.

ANNEXURE-I

(A) Scope of Work:

(1) Dismantling:

The Crane is at present in dismantled condition and kept in the shop floor. Existing Redundant, obsolete parts/items/assemblies which are not required for revamping work are to be dismantled by the party and same to be kept at designated place preferably to stores or location as per advice of stores.

(2) Supply:

The scope of supply of the party must include all the material, except the material supply under BCL's scope, required for successful revamping of cranes and same is not limited to material list given in ANNEXURE-II. The latest and best quality accessories, braking arrangement, resistances, control and power cables, all electrical accessories shall be supplied as per drawing approved by BCL. The scope of work includes wire rope, heavy duty bottom block, 4 stage (heavy duty type) master controllers with Forward and Reverse direction & centre 'O' for off positions for Travel (CT & LT) and 5 steps for Main Hoist operations of the crane. Cable trolley for festoon should be of heavy duty no maintenance type. Complete electrical connections with power & control cables are to be arranged along with other required accessories as a complete package.

Note: Any Material, spares, consumables have not covered by BCL's scope of supply or in the party's scope of supply (given in Annexure-II) the same to be supplied for successful commissioning of the crane without any extra cost.

(3) Scope of supply for electrical components:

All accessories & auxiliary electrical equipment including electricity operated brakes, controllers, power contactors, auxiliary contactors, protective devices, operating devices power & control cables, conduits etc. are to be supplied by the party. The quality and rating of supply materials must be suitable for safe & satisfactory operation & maintenance of the crane. Electrical equipment shall be adequately rated to permit simultaneous operation of any combination of motions of the crane for its duty service.

The scope of supply relating to electrical portion shall cover:

- a) Main current collectors (suitable for shrouded bus bar system should be provided).
b) Power disconnecting switch on the crane bridge walk way to be provided, immediately after the main collection gears.
c) Protective switch gears.
d) Junction box and fault indicating panel at operator cabin.
e) Resistors Box for Slip Ring motors.
f) Brakes for all motions.

- g) Limit switches.
- h) Socket outlets.
- i) Power and Control Cables.
- j) Lighting distribution MCB of Siemens/ABB/GE/L&T make, there should be at least 2 nos. Lighting fixtures (under arm type) with LED flood light, 80W (make Philips/Glow Green/ Crompton), to be switched from control cabin.
- k) Crossed traverse flexible trailing unarmored cables mounted on roller clamps (Cable Trolley) travelling over bottom flange of R S Joist provided for the purpose, the heavy duty cable Trolley is only acceptable.
- l) Indicating lamps.
- m) Master Controllers.
- n) Earth wire on crane portion.
- o) Alarms.

All related erection material required for installation and connecting up of electrical equipment with cable laying and fixing accessories are to be supplied by the party.

[The Hoist, LT, CT motors, Hoist, LT, CT control panels, Protective panel shall be supplied by BCL. The same to be thoroughly checked cleaned and tested before installation]. Proper mounting and installation of these motors, control panels, protective panels, Junction box, Resistance box, limit switches, Brakes etc shall be within the scope of the party along with supply of all necessary mounting/ fixing materials.

(4) The party has to maintain IS Standards:

- a) All equipment and material shall comply with appropriate Indian Standards (Latest). The equipment shall also comply with latest Indian Electricity Rules, as regards safety requirement and other essential provisions of the act applicable to the installation and operation of EOT cranes. All standards shall be applicable in general.
- b) The equipment shall be designated and selected to facilitate inspection, cleaning replacement and repair and for use where continuity of operation and safety are important considerations.

(5) Power supply conditions:

Power shall be available at $415 \pm 10\%$ volts, 3 phase, 50 Hz.

(6) Motors:

BCL shall supply Crane duty Motors of Marathon make for Hoist and Travel (Long and Cross both) totally enclosed fan cooled Slip ring motor and designed for 150 starts per hour.

(7) Contactors, timers relays:

- a) All contactors shall be of AC4 Class of duty with rating sufficiently higher than the full load current of the respective motors at the specified duty cycle. The directional contactors of all motions shall be suitably interlocked for correct sequence of operation.
- b) The contactors shall have high contact reliability.
- c) All contactors shall be of L&T /Siemens /BCH make.
- d) All Circuit breakers, Timers, relays etc should be of Siemens/BCH/L&T make.

[Note: Though BCL will provide all control panels(Hoist, LT , CT) and the protective panel for this crane , but contractor should follow the above if required to supply any of the above items for commissioning of the crane].

(8) Resistor Box for slip ring motors:

- a) Resistors shall be adequately protected to prevent any accidental contact.
- b) The resistors shall be air-cooled, robust, heavy duty type made from Corrosion resistant stainless steel. The resistance boxes shall be placed in racks or on the platform and shall be capable of independent removal of any selected box. Spacing recommended by the resistor manufacturer shall be maintained. The racks shall be Robust in construction to withstand variation due to crane operation. Wire wound resistors shall not be used on any motion of the crane.

- c) All resistors shall be rated for 10 minutes continuous loading.
- d) Resistors housing on cranes working in open yards shall be weather proof and on all cranes, they shall be adequately protected. The electrical clearance between resistors and earthed metal shall not be less than 100 mm. Cable terminal arrangement shall be such that cable cores do not get loose due to vibration.
- e) The temperature of resistors shall not exceed 275°C at specified duty.

(9) Circuit Protective Switch Gear:

- a) One triple pole, manually operated, moulded case circuit breaker (MCCB) make L&T/Siemens/ GE/Cutler Hammer/ABB serving as main incoming protective device, fitted with short circuit and overload releases and rated to carry at least combined full load currents of the two motions of the crane having largest power should be provided (preferably 100 A). The circuit breaker shall have adequate rupturing capacity to withstand and clear fault current of the order of 25KA. The circuit breaker shall have adequate rupturing capacity to withstand and clear fault near the protective panel, in such a way that adequate clearance is provided as per Indian Electricity Rules. Such switch has already been provided with the protective panel.
- b) To indicate whether power and control sources are ON and whether any emergency switch has been operated, indicating lamps shall be provided in operator's cabin.
- c) For protection of each drive motor against over loads & short circuits, adjustable Motor protection circuit breakers of make Siemens/GE/ABB/L&T shall be provided for each motor.
- d) Isolating MCBs shall be provided for (a) Lighting and hand lamp socket outlets & (b) Control circuit. Both of the above mentioned isolators shall be installed in driver's cabin.
- e) Each control circuit branch to every contactor panel shall be provided with facility for isolation and protection against short circuits and sustained high overloads by means of appropriately rated miniature circuit breaker.
- f) A triple pole isolating switch without fuse shall be provided in the long travel bridge walkway, as close as possible to main current collectors. This shall isolate all the circuits except the crane lighting circuit.

(10) Limit Switches:

- a) All hoist motions shall be provided with limit switches to prevent crane from over hoisting and over lowering. Two limit switches shall be provided for proper back up protection. The first limit switch shall act in the event for over hoisting and over lowering shall be of snap action /pin type self resetting feature and incorporated in the control circuit of respective drive motor.
- b) Limit switch for hoist cross and long travel motion shall be supplied installed and wires by the party.

(11) Emergency stops push buttons:

Safety switches of sustained contact type shall be provided at each end of Crane Bridge so that under any emergency conditions, by operating anyone of the switches, the incoming circuit breaker is tripped thus cutting power to all motions. Further a mushroom head type of push button shall be provided in operator's cabin so that the main incoming circuit breaker can be tripped under any emergency conditions by pressing the operating head. A pilot lamp incorporated in the control circuit shall glow when any of the switches is operated.

(12) Socket Outlets

Minimum of one socket outlets for hand lamps shall be provided at each driver's cabin, long travel side and in the area where control panel, resistors and transformers shall be installed. Hand lamps shall operate at 240 volts AC Supply.

(13) Cabling:

- a) All wiring for power control & lighting circuit shall be carried out with 1.1KV grade Flame Retardant Low Smoke (FRLS) PVC insulated copper cables as per IS 694 and IS 1554 Pt. I
- b) Minimum size of Power & control cables shall be 6 sq mm & 1.5sq mm respectively.
- c) All cables shall be systematically laid on G.I trays & fixed with adequate number of GI clamps.
- d) All cables shall be weather proof and shall be either of GLOSTER/UNIVERSAL/LAP/FINOLEX/RR Cables.

(14) Identification of circuit cables etc:

Labels of permanent nature shall be provided on supports of all switches, fuses, contactors, relays etc. to facilitate identification of circuits and replacement. All panels, controllers, resistors etc. shall be properly marked for each motion. All power, control cable lighting and other cables shall be ferruled at both ends as per cables numbers indicated in supplier's drawing. All equipment terminals shall also to be marked likewise.

(15) Earthing:

Earthing to the crane shall be effected through track rails crane structure. As such, all the electrical equipments mounted on the crane shall be connected to the crane structure by means of earthing links. The crane structure in turn shall be made electrically continuous by providing jumpers over riveted or bolted joints. Equipments fed by flexible cables shall be earthed by means of spare core provided in the flexible cable.

(16) Mechanical items:

- i) Rope drum for hoist along with shaft, bearings, Axle box (Bearing Housing) coupling, limit switch arrangement both for rotary and gravity limit switches are to be supplied and installed.
- ii) All brake mechanism (Hoist, Trolley, LT), complete assembly are to be supplied and installed. All brake system should be of electro-hydraulic thruster type. Diameter of Hoist brake drum 200 mm and travel brake drum is 150 mm. Hoist mechanism shall consist with two braking arrangement and each travel mechanism consist with one braking arrangement.
- iii) Bottom block fitted with Hook and pulley of capacity suitable for 10Ton suitable for 16mm dia. steel wire rope of 4 falls to be supplied.
- iv) Equalizer Pulley block consists with two numbers pulley suitable for the hoisting system to be supplied and installed..
- v) 16 mm dia. 6/36 construction steel core steel wire rope of length 48 meters to be supplied by the party.

(17) Structural repair and mechanical repair:

- i) BCL will provide new trolley fitted with 250 mm dia trolley wheels for this crane. Installation of all component (viz. Motors, Gear boxes, Rope Drum assembly, sheave pulley all connecting shafts, brake drum with brake assembly, limit switches, cable laying etc.) of the overall trolley arrangement has to be carried out.
- ii) BCL will provide new end carriage set fitted with 400 mm dia wheels for this crane. All necessary fixing arrangements with holes have to be carried out to make it true to fit with existing girders. The end carriage has to be fitted with new suitable buffer in its both sides.
- iii) Both side girders to be thoroughly checked and overhauled with necessary strengthening as a whole with replacement of damaged parts where found necessary. The revamping work should be in such a manner so that the whole crane became capable to work with 10Ton SWL. The fixing arrangement of both sides of the girder has to be thoroughly renewed to suite with the end carriage. The alignment and the parallelism of both side girders (cross travel rail), the camber of the both girders, diagonal measurement between the corners of both girders are to be make true as per IS guideline for EOT Crane. Both sides of the girder have to be fitted with end to end complete platform along with new hand railings. One side of the girder has to be fitted with strong "T Section" fittings for movement of cable trolley. Two new strong platform structures at the diagonal end of the girder set are to be constructed for installation of long travel drive arrangements (motor, gear box, brake etc). Overall girders are to thoroughly refurbished.
- iv) Cross travel rails are to be thoroughly checked (Alignment with girder, levels of the rails, parallelism between both rails, condition of rails) and overhauled with necessary strengthening as a whole with replacement of damaged portion of rails where found necessary.
- v) Existing operator cabin has to be thoroughly refurbished to suite with revamped crane.

Note: Approximate fabrication job for above structural job shall be around 5 Ton.

- vi) Whole structure to be thoroughly cleaned by removing the old paint and rust before painting. The structured to be painted with 2 coats red oxide and two coats golden yellow finish paint. All required paints shall be provided by BCL. BCL also provide compressed air for the job at free of cost.

Note: BCL will supply all structural materials viz. MS Angles, channels, chequered plate, plates etc except **MS square bar and "T section"**. BCL will also provide welding rod, welding machine, welding cables, Oxygen, LPG/DA, Pneumatic grinding machine and available facility for the above structural jobs at free of cost. All required fasteners to be supplied by the party.

(18) Erection, commissioning and Load tests:

- a) The party shall be carried out erection and commissioning of the cranes within shortest possible time. Adequate number of manpower with technical experts has to be arranged by the party so that erection and commissioning delays are eliminated. The crane has to be load tested from a competent authority / persons as per factory act before hand over the crane for day to day production Job.
- b) BCL's obligation with regard to erection and commissioning will be limited to the following:
 - (i) Providing assistance in unloading, transporting materials from the unloading place to the work place and storing area, with existing facilities having with BCL.
 - (ii) Supplying following free of cost at the site of work:
 - Electricity required for the purpose of erection/ lighting.
 - Test loads with slings and tackles for performing the load tests
 - Ladder for going up the gantry rails.
 - c) All electrical and mechanical equipment shall be tested in accordance with the appropriate Indian Standard and test certificates be provided to BCL in support of such tests.
 - d) Test on BCL's premises viz. Start up and trial operations test(Commissioning test):
The party have to carry out the start up and trial operation tests (commissioning test) on receipt of authorization from BCL in addition to tests indicated in IS:3177(latest), the following shall also be shown:
 - (i) The earthing of the crane and control equipment to be tested as per Indian Electricity Rules.
 - (ii) The operation of brakes on long travel, cross traverse and hoisting motions.
 - (iii) There is no skewing in crane during long travel and cross travel motions, presence of vibrations and unusual noise in operation.
 - e) The trials shall be carried out initially under no load conditions and on satisfactory completion of these, trials shall be repeated for various loads until the full rated load and operating range are covered. During the trial operation, all necessary adjustments shall be made so as to ensure compliance with the operating characteristics for the complete equipment as stipulated in the technical specifications.
 - f) All necessary testing and load test of the crane , as per factory act has to be arranged and carried out by the party from competent authority / persons and the certificate thereof to be to submitted to BCL which will be tested as commissioning certificate of the crane. The Crane can be handed over for use the same in production job only after receipt of certificate from competent authority.

(19) Following documents are to be supplied in triplicate after completion of total work:

Detailed drawings and circuit diagram of all systems:

- a) Integrated drawing consisting of control logic and power.
- b) Layout of control and power cables with tags.
- c) Component layout drawings.
- d) Operation, preventive maintenance and troubleshooting manuals.
- e) Master control connections & drawings.
- f) Control logic drawing.
- g) Mechanical drawings(as applicable) & drawings of accessories like current collectors, brake drums flanges, wheel assembly etc.
- h) New master controller's drawings
- i) All limit switch with logic.
- j) Detailed termination of various other cables.
- k) Motor connections.
- l) Resistance details.
- m) Cable schedule.
- n) All drawings of mechanical items supplied / modified by the party for the same.

(20) Following specification / make to be followed:

- i) Power / control cables: Lapp/Finolex/ Gloster/RR Cables/Universal.
- ii) Safety/ Limit Switches: ISI & reputed make.
- iii) Electrical switchgears: Siemens/ABB/L&T/BCH/GE.

- iv) Cabin lights and flood lights: Philips/Glow Green/Crompton/ Osram.
- v) Cabin fan: ISI & Reputed make.
- vi) Wheels: Forged Steel.
- vii) Gears: EN-24 with case hardening.
- viii) Bearings: SKF/FAG/Timken(India).
- ix) Shafts: EN 9.
- x) High tensile bolt: TVS/Unbrako.

(21) Details of existing EOT Cranes:

- i) Capacity: 10 Ton.
- ii) Span: 22 Meter.
- iii) Class of duty: II, IS 3177.
- iv) Type of Cabin: Closed.
- v) Height of Lift: MH-8.5 Mtrs, AH- Nil.
- vi) Power supply: $415 \pm 10\%$ volts, 3 phase, 50 Hz.
- vii) Conductor(D.S.L): Shrouded Busbar , closed insulated of copper section.
- viii) Hoist speed M/min: MH 8.0/0.8
- viii) Travel speed M/min: CT 25.0/2.5, LT 40.0 / 4.0
- ix) 5 Step master controller for Hoist and 4 step master controller for travels to be provided.
- x) Crane at -No F-42 , Location Bay - 4

(22) BCL's scope of supply:

A) New items:

- a) Hoist (22KW, LT(6KW x 2) and CT(2.5KW) Motors.
- b) Control Panel for Hoist , LT , CT suitable for the crane and Main Protective Panel.
- c) Trolley frame fitted with 4 nos trolley wheels.
- d) End carriage set and 4 nos 400 dia wheel sets fitted with bearing, housing complete.
- e) Gear box for LT (2 nos), CT fitted with brake drums, Gear box for hoist fitted with brake drum and rope drum flange.
- f) All required connecting shaft with couplings for wheel side and motor side etc.

B) Old items:

- a) Two nos lattice girder of capacity 10 Ton, span 22 meter fitted with CT rails, hand railing etc.
- b) Operator Cabin.

C) Materials for structural repair and modification alongwith consumables:

- a) MS Angles, channels, chequered plate, plates etc except **MS square Bar and "T Section"**.
- b) Welding rod, Oxygen , LPG/DA, compressed air.
- c) Paints Red oxide primer and Golden yellow finish paint.

D) Other consumables: Viz. Transformer oil, Gear oil, Bearing grease, cardium compound.

(23) Plant and machineries:

BCL will provide its existing plant and machineries on need and availability basis:

- a) EOT Cranes for shifting of materials.
- b) Welding machine, welding cables.
- c) Pneumatic grinding machine, pneumatic pipe.
- d) Drill and available in shop floor.

LIST OF MAJOR MATERIAL TO BE SUPPLIED BY THE PARTY

Sl No	Description of Material	Quantity
1	Supply of Resistance Box- 5 step, SS Grid type , 22 KW, RA-47.5Amp, RV-280 V	1 no
2	Supply of Resistance Box- 2 step, SS Grid type , 6 KW, RA-19.5Amp, RV-185 V	2 nos
3	Supply of Resistance Box- 4 step, SS Grid type , 2.6 KW, RA-13.7Amp, RV-115 V	1 no
4	Supply of crane Cabin electrical components viz. Cabin fan, Cabin Light, Main Switch , Start /Stop Push Button, Emergency Stop Switch fault panel.	1 lot
5	Main Isolator MCCB, 100A, 3 Pole, 25 KA(clear fault current)	1 no
6	Supply of Junction Box.	2 nos
7	Supply of Crane Light(Bridge light)	4 nos
8	Supply of electrical armoured Copper Cable Viz. 1.5 Sq mm x 4 Core, 6 Sq mm x 3 Core, 10 Sq mm x 3Core, 16 Sq mm x 3 Core, 35 Sq mm x 4 Core, 1.5 Sq mm x 12 Core, 25 Sq mm x 3 Core etc as required for successful completion of the job.	1 Crane set
9	Supply of electrical flexible Copper Cable Viz. 2.5 Sq mm x 2 Core, 2.5 Sq mm x 3 Core, 6 Sq mm x 3Core, 1.5 Sq mm x 3 Core, 2.5 Sq mm x 2 Core, 25 Sq mm x 3 Core etc as required for successful completion of the job.	1 Crane set
10	Supply of Cable Trolley	18 nos
11	Supply of Ferrule, Socket Pin & Ring Type.	1 lot
12	Supply of Cable Gland.	1 lot
13	Supply of DSL Current collector with insulator	4 nos
14	Supply of GI Cable Tray	1 lot
15	Supply of Master controller.	3 nos
16	Supply of Thruster Brake 200 dia 34 kg.	2 nos
17	Supply of Thruster Brake 200 dia 18 kg.	3 nos
18	Supply of Limit Switch- Rotary Type.	1 no
19	Supply of Limit Switch- Gravity Type.	1 no
20	Supply of Limit Switch- Roller level type.	2 nos
21	Supply of Tee section 50 x 50 x 22Mtrs for CT Festoon	1 no
22	Supply of 500mm dia Hoist Rope Drum assembly with bearing housing box all provision for rotary limit switch all complete for 16mm dia steel wire rope. The rope drum should fit with the flange (PCD 565 mm) fitted with the BCL supplied Gear Box. Supply of 200mm dia brake drum for hoist mechanism.	1 set
23	Hook with 2 nos Pulley block suitable for 16mm dia rope and capacity 10Ton SWL complete set with load test certificate.	1 no
24	Equaliser pulley block assembly for 16mm dia wire rope.	2 nos
25	16mm dia 6/36 construction steel core steel wire rope of length 48mm metres to be supplied by the party.	48 meter
26	50 mm x 50 mm MS bar (CT Rail)	22 meter
27	Fasteners (MS/HT/Fit Bolts with nut washer, spring washers etc.	1 lot
	Note: "1 Lot" material shall be sufficient for successful commissioning of the crane.	

Other terms and conditions:

- i) The job to be executed at BCL Clive Works at 5, Hide Road, Kolkata-700043.
- ii) All materials under the scope of supply (Annexure- II) are to be delivered to the BCL-CW Stores.
- iii) The supply, Repair, Construction, Installation, Testing, Commissioning, Trial Run, Load test certificate and handover of the revamped crane have to be completed within 2 months after receipt of PO.
- iv) Inspection of components shall be carried at the time of delivery, stage inspection with progress of work and final inspection on completion of the work shall be carried out by Maintenance Dept of Clive Works.
- v) The whole crane shall be guaranteed for a period one year after after commissioning.
- vi) Interested party shall visit BCL-Clive Works to see the quantum of job before submission of the offer. A joint inspection report shall be prepared on the basis of parties visit and the same to be submitted alongwith the offer.
- vii) For any further query, party may communicate with Works Manager(I/C)(VW-CW) or Manager(Maintenance) CW-VW.

Contractor's Responsibility:

- i) Consumables i.e. Oxygen, LPG, electrodes, Kerosine oil etc required for revamping job are to be arranged by the contractor.
- ii) Loading, unloading and carrying : Braithwaite shall provide Space, Electric Powder. Loading, unloading, Carrying and handling of materials during execution of job.
- iii) Machineries Tools & Tackles, Labours: All machineries including Welding m/cs, welding cable & accessories etc. are to be arranged by contractor.
- iv) Oxy-cutting equipments, Tools & Tackles & accessories, experienced Erectors, Painters & other related Labours required for execution of total job shall be arranged by the contractor. Welding cable & accessories etc. are to be arranged by contractor.
- v) The contractor must ensure precautionary safety measures for the workmen for working at a height of about 15 M. Document for insurance coverage of the workmen must be produced to the officer in charge before start of work. This is mandatory and if the contractor fails to provide the same BCL will not allow the contractor to start the work.
- vi) Inspection : Inspection (stage wise) of work will be done by in-charge of Maintenance Dept. Contractor shall keep a record of work progress duly signed by authorized person of concerned department on regular basis. TC/GC to be provided alongwith supply of materials.
- vii) **Entry of all requisite materials shall be properly recorded at Security Office & Stores of BCL.**

All others requirement for the job shall be on contractor's account.

D. Braithwaite's Responsibility:

Water and Electricity shall be provided by Braithwaite at free of cost.

GENERAL TERMS & CONDITIONS**1) Braithwaite & Co limited reserves the right to:**

- Cancel the tender at any stage.
- Postpone the above-mentioned due date.
- May ask for further clarification / documents during techno commercial scrutiny of bids received.
- BCL shall not be responsible for any delay, loss, damage for bids sent by post.
- BCL shall not be liable for any expenses incurred by bidder in preparation of bid irrespective of whether it is accepted or not.
- Canvassing i.e. soliciting favour seeking advantage etc. in any form is strictly prohibited and any bidder found to have engaged in canvassing shall be liable to have the bid rejected summarily.
- If the bidder deliberately gives any wrong information in his tender to create in circumstance for the acceptance to his bid, Braithwaite reserves the right to reject such application.

2) Earnest Money Deposit (E.M.D.): Earnest Money Deposit of **Rs.10,000 /-** (Rupees Ten thousand Only) is required to be submitted by Demand Draft/ Pay Order in favour of **Braithwaite & Co. Limited**, payable **at Kolkata**, or in the form of Bank Guarantee. In case of Bank Guarantee the validity period initially be 120 days from the date of opening of tender. The units registered with DGS&D, SSI units registered with NSIC / MSME for the tendered items only and PSU units may be exempted from submission of EMD. Necessary documentary evidence shall have to be submitted along with the techno-commercial bid.

EMD is liable to be forfeited if the bidder withdraws or amends impairs or derogates from the tender in any respect within the period of validity of this tender.

EMD shall be returned to unsuccessful bidder after finalization of the tender without any interest. For successful bidder, the same will be retained by BCL till completion of the job or till submission of Security Deposit or if so decided by the bidder adjusted against Security Deposit for the said job.

3) Security Deposit :

- (a) For due fulfillment of the contractual obligations, the successful bidder shall have to furnish a sum equal to 5% of the contract value towards Security Deposit in the form of Demand Draft / Pay Order drawn in favour of "BRAITHWAITE & CO. LTD.", payable at Kolkata or a Bank Guarantee (as per format provided by BCL) within 15 days from the date of issue of the Purchase Order. In case of submission of BG towards Security Deposit, BG shall cover the desired validity plus 03 months claim period.
- (b) Security Deposit may also be built up by deducting the amount proportionately from each bill of the contractor on their request. However, 50% of the total amount of the Security Deposit is to be deposited by the successful bidder on receipt of Purchase Order. Balance 50% may be recovered from running bill.
- (c) Security Deposit may be waived for SSI, NSIC, MSME registered bidders and PSUs.
- (d) Security Deposit will be returned only on completion of obligations under the contract.

4) Performance Guarantee:

The contractor shall have to submit Performance Bank Guarantee for 5% of Order value as per format to be provided by BCL after placement of order. The Performance Bank Guarantee shall have to be submitted before receipt of first payment. The Performance Bank Guarantee shall remain valid till completion of obligations under the contract.

The Security Deposit, if submitted, may be converted to Performance Guarantee. The contractors who will submit Security Deposit, no performance Bank Guarantee is required to be submitted by them in such case.

While submitting request for release of Security Deposit / PBG after completion of awarded job, contractor shall submit necessary SD / PBG details, P.O details and execution details as per requirement of BCL.

- 5) **Validity:** Offer shall remain valid for a period of 90 days from the date of opening of this tender.
- 6) The entire jobs are to be carried out at Clive Works areas.
- 7) **Completion time :** The job to be completed within 02 months from the date of issuance of P.O/LOI.
- 8) **Quantity variation : Quantity variation of +/- 10 % will be applicable.**
- 9) **Guarantee/Warranty :** 12 months from the date of completion of the job.

10) Statutory Obligations:

The contractor will have to comply with all statutory responsibilities in regard to the Contract labour (Regulation & Abolition) Act, 1970, Contract Labour (Regulation & Abolition) Rules, 1970, E.S.I. Act Scheme, Minimum Wages Act & Rules as fixed by Govt. time to time, P.F. Act, 1952, Pension Act and allied scheme, Payment under Bonus Act, To contribute as per Provident Fund Act, 1952. E.S.I. Scheme Act and Scheme & Minimum Wage Act & Rules as fixed by Govt. time to time. The bidder should also have GST, PF & ESI registration. Copies of the same are to be enclosed with Techno-commercial Bid.

11) Liquidated Damages:

Timely execution of the job and maintaining the delivery schedule is the essence of the contract. The job will have to be completed as per the delivery date mentioned in the Purchase Order. In case of non-execution of the job as per delivery schedule, the LD clause will be imposed @ 0.5% per week subject to maximum 10% of the order value.

12) Risk Purchase:

In the event of failure or delayed execution within the reasonable period, the order may be cancelled and the purchaser reserves the right to get the job done by other Agency / Agencies on Risk Purchase basis and shall recover the extra cost thereof, if incurred from the contractor. BCL reserve the right to forfeit the Security Deposit/PBG also of the defaulting firm.

13) Arbitration:

All questions, disputes or difference whatsoever shall arise between the purchaser and the supplier upon or in relation to or in connection with the contract either may forthwith give to the notice in writing of the existence of such question, dispute or difference and the same shall be referred to the adjudication of sole Arbitrator who shall be the Chairman & Managing Director of BCL and he shall have the right and authority to appoint any Officer of the Company as Arbitrator not below the rank of a General Manager who is not directly connected with the Purchase Order.

Such a reference submitted to the Arbitrator shall be deemed to be the submission to the Arbitrator within the meaning of the Arbitration and Conciliation Act, 1996 statutory modification thereof. The proceedings of the Arbitration shall be held in Kolkata.

Any legal dispute that may arise will be settled within the jurisdiction of Courts at Kolkata.

14) **Payment:** 100% on completion of the job. Bills shall be duly certified by Incharge Maintenance-CW. Payment shall be made after 30 days from the date of submission of Bills.

GST: GST shall be applicable as per central Govt. Rules.

Common Notes regarding GST :

All Challans, Invoices shall be in the form specified by GST Authority.

HSN/HAC Code shall have to be mentioned.

BCL reserves the right to keep the payment of GST amount on hold till receipt of Input tax credit by BCL is ensured. In case of non-compliance, regarding documentation/monthly return to ensure availing input tax credit (ITC) by BCL, BCL also reserves the right to deduct the resultant amount.

15) Quoted rate(s) should remain firm up to end of the contract period. No price variation whatsoever will be entertained afterwards till completion / full execution of the contract.

16) **Quantity Variation:** Order quantity/value/period may vary \pm 30% at the same rate, terms & conditions depending upon requirement of BCL.

17) **Repeat Order:** BCL also reserves the right to place repeat order for maximum 75% of original order quantity/value/period at the same rate & terms of original order for which acceptance of the same from the contractor shall be taken prior to placement of such repeat order.

18) An unconditional acceptance of all notes, terms & conditions of the tender must be given along with Part-I offer.
(Techno Commercial Bid)

PRICE BID (PART – II)

- i. Price Bid Part shall be opened only if Part –I is qualified.
- ii. This part should be free from any condition.
- iii. Unquoted price bid (without price) must be given along with part-I offer.
- iv. No correction, alteration, over writing etc. will be allowed.
- v. Price Bid without signature shall be considered as cancelled.
- vi. Rate(s) quoted must be written both in figures & words, in case of difference, the rate quoted in words shall be considered.
- vii. The bidder shall submit rates as per following formats.
- viii. Evaluation of lowest bid shall be made on the basis of **GRAND TOTAL net off GST** as given in Price Bid Format.

PRICE BID FORMAT:

Group-A: Revamping Job

Sl No	Description	Qty	Rate (Rs)	GST in percentage & value(Rs)	Total(Rs)
I	Revamping of 10 Ton EOT Crane, Span 22 Mtr, Plant no F-42 as per Annexure I				
a)	Labour charges for Fabrication job for repairing and modification of existing structure(Girders, Cabin, Ladder, CT Rail, Trolley Assembly, End Carriage Assembly etc.	Apprx. 5 Ton			
b)	Labour Charges for Assembly and installation of all electrical and mechanical items in the Crane.	1 lot			
c)	Labour Charges for Scraping, cleaning and painting	1 lot			
d)	Labour Charges for Erection of the whole Crane including all lifting tackles Hydra etc.	1 lot			
e)	Labour Charges for all electrical connections of panel , motors, JB, Light, Controllers, DSL etc as a whole alongwith commissioning	1 lot			
f)	Load Test of the Crane with certificate from competent authority as per WB Factory Act 1958 Form-8.	1 lot			

Group-B: Spares for Revamping Job

Sl No	Description	Qty	Rate (Rs)	GST in percentage & value(Rs)	Total(Rs)
II	Supply of Electrical , Mechanical items as per Annexure-II which is given as per following:				
1	Supply of Resistance Box- 5 step, SS Grid type , 22 KW, RA-47.5Amp, RV-280 V	1 no			
2	Supply of Resistance Box- 2 step, SS Grid type , 6 KW, RA-19.5Amp, RV-185 V	2 nos			
3	Supply of Resistance Box- 4 step, SS Grid type , 2.6 KW, RA-13.7Amp, RV-115 V	1 no			
4	Supply of crane Cabin electrical components viz. Cabin fan, Cabin Light, Main Switch, Start /Stop Push Button, Emergency Stop Switch fault panel.	1 lot			
5	Main Isolator MCCB, 100A, 3 Pole, 25 KA(clear fault current)	1 no			
6	Supply of Junction Box.	2 nos			
7	Supply of Crane Light(Bridge light)	4 nos			
8	Supply of electrical armoured Copper Cable Viz. 1.5 Sq mm x 4 Core, 6 Sq mm x 3 Core, 10 Sq mm x 3Core, 16 Sq mm x 3 Core, 25 Sq mm x 4 Core, 1.5 Sq mm x 12 Core, 25 Sq mm x 3 Core etc as required for successful completion of the job.	1 Cran e set			
9	Supply of electrical flexible Copper Cable Viz. 2.5 Sq mm x 2 Core, 2.5 Sq mm x 3 Core, 6 Sq mm x 3Core, 1.5 Sq mm x 3 Core, 2.5 Sq mm x 2 Core, 25 Sq mm x 3 Core etc as required for successful completion of the job.	1 Cran e set			
10	Supply of Cable Trolley	18 nos			
11	Supply of Ferrule, Socket Pin & Ring Type.	1 lot			
12	Supply of Cable Gland.	1 lot			
13	Supply of DSL urrent collector with insulator	4 nos			
14	Supply of GI Cable Tray	1 lot			
15	Supply of Master controller.	3 nos			
16	Supply of Thruster Brake 200 dia 34 kg.	2 nos			
17	Supply of Thruster Brake 200 dia 18 kg.	3 nos			
18	Supply of Limit Switch- Rotary Type.	1 no			
19	Supply of Limit Switch- Gravity Type.	1 no			
20	Supply of Limit Switch- Roller level type.	2 nos			
21	Supply of Tee section 50 x 50 x 22Mtrs for CT Festoon	1 no			
22	Supply of 500mm dia Hoist Rope Drum assembly with bearing housing box all provision for rotary limit switch all complete for 16mm dia steel wire rope. The rope drum should fit with the flange (PCD 565 mm) fitted with the BCL supplied Gear Box. Supply of 200mm dia brake drum for hoist mechanism.	1 set			
23	Hook with 2 nos Pulley block suitable for 16mm dia rope and capacity 10Ton SWL complete set with load test certificate.	1 no			
24	Equaliser pulley block assembly for 16mm dia wire rope.	2 nos			
25	16mm dia 6/36 construction steel core steel wire rope of length 48mm metres to be supplied by the party.	48 M			
26	50 mm x 50 mm MS bar (CT Rail)	22 M			
27	Fasteners (MS/HT/Fit Bolts with nut washer, spring washers etc.	1 lot			
	Note: "1 Lot" material shall be sufficient for successful commissioning of the crane.				

GRAND TOTAL (Group-A+Group-B) = Rs .in figures

Rupees in words

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Braithwaite & Co. Ltd