



माझगांव डॉक शिपबिल्डर्स लिमिटेड

(भारत सरकार का उपक्रम)

राष्ट्र के पोत निर्माता

डॉकयार्ड रोड, माझगांव

मुंबई – ४०००१०

भारत

MAZAGON DOCK SHIPBUILDERS LIMITED

(A Government of India Undertaking)

Shipbuilders to the Nation

Dockyard Road, Mazagon,

Mumbai 400 010.

INDIA

ई-निविदा फॉर्म दो हिस्सों में

e-TENDER ENQUIRY FORM (TEF) Two-Bid System

मंडल: पोत निर्माण

DIVISION: SHIP BUILDING

विभाग: बाह्यस्तोत-तकनीकी सेवाएँ

DEPARTMENT: OTS-TECHNICAL SERVICES

निविदा क्रमांक: १९०००००२२८

TENDER NO: 1900000228

निविदा जारी दिनांक : २२ जुलाई २०२५

TENDER DATE : 22 July 2025

निविदा देय दिनांक एवं समय: १२ अगस्त २०२५ दोपहर १५:३० बजे

CLOSING DATE & TIME: 12 August 2025 at 1530 Hrs

भाग १ - तकनीकी एवं वाणिज्यिक हिस्सा खोलने (ऑनलाइन) कि तिथि एवं समय: १३ अगस्त २०२५, दोपहर १५:३० बजे से

Online Opening of Part-I (Techno-commercial Bid): 13 August 2025, 1530 Hrs. IST onwards

माझगांव डॉक शिपबिल्डर्स लिमिटेड प्रासिद्ध निविदाकर्ताओं / विक्रेताओं से निम्नलिखित कार्य के लिए प्रतियोगी ऑनलाइन निविदाएँ दो हिस्सों में (भाग १ - तकनीकी एवं वाणिज्यिक हिस्सा और भाग २ - मूल्य हिस्सा) अपने ई-प्रॉक्यूरमेंट पोर्टल <https://eprocuremdl.nic.in> पे आमंत्रित करते हैं।

MAZAGON DOCK SHIPBUILDERS LIMITED hereinafter referred to as MDL, INVITES ONLINE COMPETITIVE BIDS from reputed Bidders in **TWO BID SYSTEM** (Part-I Techno-Commercial Bid and Part-II Price Bid) on e-procurement portal <https://eprocuremdl.nic.in> for the following Work / Services:



कार्य का वर्णन
DESCRIPTION OF WORK

**एलकॉक यार्ड, एमडीएल में 01 नंबर 150/20T लैवल
लफिंग (एलएल)जिब क्रेन का डिज़ाइन,निर्माण,
स्थापना, आपूर्ति, परीक्षण और कमीशनिंग
Design, Manufacturing, Supply, Erection,
Installation, Testing and Commissioning
of 01 no 150/20T Level Luffing (LL) Jib
Crane at Alcock Yard, MDL.**

**निविदा क्र.: १९०००००२२८
TENDER NO: 1900000228**



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1. प्रस्तावना /PREAMBLE

1.1. Mazagon Dock Shipbuilders Ltd. (MDL), a listed Company, hereinafter referred as Employer (Client), is a Public Sector Undertaking by the Government of India under the administrative control of Department of Defence production, Ministry of Defence.

1.2. MDL's main business/ activities are Shipbuilding, Submarine Construction and Heavy Engineering Works.

MDL intends to undertake Design, Manufacturing, Supply, Erection, Installation, Testing, and Commissioning of 01 no 150/20T Level Luffing (LL) Jib Crane at Alcock Yard, MDL.

2. **काम का संक्षिप्त विवरण/BRIEF SCOPE OF WORK:** Bidder shall refer detailed Scope of Work including Technical Specifications is attached at **Enclosure 21**. The Safety Instructions & Statutory compliances are attached at Annexure A & B respectively.

3. निविदाकर्ताओं के लिए निर्देश/ INSTRUCTIONS TO THE BIDDERS:

3.1. This is an e-tender and bids have to be submitted online ONLY. It is the sole responsibility of the bidders to submit their bids online in time. Bidders are, therefore, advised to commence the bidding process on the e-procurement portal WELL IN ADVANCE (preferably 3-4 days prior to tender closing date) and not wait for last minute submission of their bids. MDL reserves the right for grant of extension or otherwise without assigning any reason. Bidder's failure to complete submission of their online bids in time on account of reasons such as SLOW SPEED OF SERVER, TECHNICAL PROBLEMS etc. shall not be entertained and EXTENSION OF SUBMISSION TIME shall not be granted on this account.

3.2. In case any bidder intending to respond against the tender and is not having the DSC to facilitate uploading of his bid, should approach the Service Provider at least 10 working days in advance of the tender closing date requesting for DSC. The request so made to the Service Provider should simultaneously be forwarded to MDL Dealing Officer. In case the DSC is not received within 3 to 4 working days of the request by the bidder, the Head of the concerned Commercial section be informed immediately. If the DSC is not received from the Service Provider three working days prior to the tender closing date, suitable extension to the tender closing date shall be considered if requested by the concerned bidder on submission of requisite supporting documents (scanned copy of application submitted to the service provider).

3.3. In case of any discrepancies'

3.3.1. Between Hindi and English Versions of the Tender Clauses, English Version will prevail.

3.3.2. In the drawings or between the drawings, technical specifications, and/ or schedule of items/quantities, the contractor shall seek clarification from MDL and shall carry out the work in accordance with the clarification furnished by MDL.

3.3.3. MDL at its discretion, may follow the following order of preference- Description of Schedule of Bill of Quantities, Technical Specifications, Drawings, General Condition of Contract.

3.4. Tender due date extension may be considered if extension of time asked by bidder in 3 days' in advance.

3.5. The online bid can be submitted by the authorized representative of the bidder as detailed below,

3.5.1. By the Proprietor, in case of a proprietary firm; or



- 3.5.2. By a Partner, in case of a partnership firm and/or a limited liability partnership;
- 3.5.3. By a duly authorized person holding the Power of Attorney, in case of a Limited or Private Limited Company or a corporation.
- 3.6. In case of any techno-commercial query prior to submission of bids, the bidder(s) are requested to contact the following from MDL. Letter(s)/emails shall be addressed to GM/HOD (OTS), MDL. Contact details are as under:

MDL	
Shri. A.P. Garkhedkar, DGM/HOS (OTS-TS) Email: apgarkhedkar@mazdock.com Tel No: +91 22 23763086	Shri. Debjit Mondal, DM (OTS-TS) Mail: dmondal@mazdock.com Tel No: +91 22 23763410

3.7. Before submission of the tender, the bidder shall visit the site, examine the General Conditions of Contract, the Specifications (including any drawings and other specifications referred to therein), the schedules and the Bill of Quantities. In case of any ambiguity or discrepancy between any of these documents or between figured and measured dimensions, the bidder should immediately refer the matter to MDL.

3.8. Corrigendum:

- 3.8.1. Before the deadline for submitting bids, MDL may update, amend, modify, or supplement the information, assessment or assumptions contained in the Tender Document by issuing a corrigendum.
- 3.8.2. The corrigendum shall be published in the same manner as the original Tender Document. Without any liability or obligation, the Portal may send intimation of such corrigendum to bidders who have downloaded the document under their login. However, the bidders' responsibility is to check the website(s) for any corrigendum. Any corrigendum thus issued shall be considered a part of the Tender Document. To give reasonable time to the prospective bidders to take such corrigendum into account in preparing their bids, MDL may suitably extend the deadline for the bid submission, as necessary. After MDL makes such modifications, any Bidder who has submitted his bid in response to the original invitation shall have the opportunity to either withdraw his bid or re-submit his bid superseding the original bid within the extended time of submission.
- 3.9. Mazagon Dock Shipbuilders Limited will not be responsible for any costs or expenses incurred by the Bidder in connection with the preparation and submission of his bid or for any other expenses incurred in connection with such bidding regardless of the conduct or outcome of the tendering process including cancellation of this tender process.
- 3.10. The bidder shall not take any benefit of grammatical or printing mistakes, which may have occurred.
- 3.11. DEVIATIONS: - Deviations, if any, from Terms, Conditions & Technical requirements specified in the Tender Enquiry, General Conditions of Contract (GCC) should be clarified from MDL well before the closing date of the tender. Deviations put up along with the tender is generally discouraged and not accepted.
- 3.12. Information relating to the examination, clarification, evaluation and comparison of bids, and recommendations for the award of a contract, shall not be disclosed to bidders or any other person not officially concerned with such a process until the award to the successful bidder has been announced.



3.13. From the time of bid opening to the time of contract award, no bidder shall contact MDL on any matter related to the bid, except on request and prior written permission.

3.14. Any effort by the bidder to influence MDL in bid evaluation, bid comparison or contract award decisions will vitiate the process and will result in the rejection of the bidder's bid.

3.15. **Pre-bid meeting:** A Pre-bid conference will be held for the subject tender on 01.08.2025. Intending Applicants shall also furnish names and designation of their persons attending the pre-EOI conference. Applicants shall submit written queries in advance of the Pre-EOI conference.

4. ई-टेंडरिंग के लिये मार्गदर्शन /GUIDANCE FOR E-TENDERING:

- 4.1. No offer in sealed envelope will be accepted against e-Procurement.
- 4.2. Bidders can participate in online bidding
 - 4.2.1. By registering with above referred portal for User ID and password.
 - 4.2.2. By obtaining class III B DSC (Digital Signature Certificate) for secured bidding.
- 4.3. For any further details on e-tendering & Digital Signature Certificate (DSC), following are the contact details – email: eproc-support@gov.in , global support number - +91-120-4200462/+91-120-4001002, Mobile No -+918826246593.
- 4.4. For uploading the tender details, DSCs issued by the following are acceptable: i) n-Code ii) MTNL iii) TCS iv) SIFY
- 4.5. For mapping of DSC, representative of National Informatics Centre may be contacted.
- 4.6. Bidders who had earlier participated in MDL tenders on e-Procurement portal <https://mdl.eproc.in> need to register again on the current e-Procurement portal <https://eprocuremdl.nic.in>.

5. दो प्रणाली में ऑनलाइन प्रस्ताव प्रस्तुत करे /ONLINE SUBMISSION OF OFFER IN TWO-BID SYSTEM:

5.1. Offer must be submitted in Two parts i.e. Part-I (Techno-Commercial Bid) and Part-II (Price Bid) as appearing online on the portal <https://eprocuremdl.nic.in>

5.1.1. **Techno-Commercial (Part-I) Bid:** Bidders shall submit/upload scanned copy of the following duly filled in, signed & stamped with company seal in online Part (I) bid: -

- i. In respect of technical requirements of the tender:
 - a. Documentary evidence in support of Past experience and Performance on Similar work(s) during the last 7 years, stipulated under **TEF Clause No.7**, as applicable in the format attached at **Enclosure-8**.
 - b. Documents in support of general construction experience (Annual Turnover) **TEF Clause No.7.1.3**. in the format attached at **Enclosure-3**
 - c. List of Key Personnel available for this Project **TEF Clause No.7.1.4**, in the format attached at **Enclosure-9**
 - d. **Under taking for making available the required Key personnel as specified in the tender.**
 - e. Scanned copy of Bidder's company profile.
 - f. Proposed methodology and Programme for execution duly supported by equipment planning and QA procedures proposed to be adopted by the bidder to be submitted.
 - g. License for execution of Electrical works from the concerned authorities/ organization/ bodies.
- ii. In respect of Commercial requirements of the tender:



- a. Bidder's Undertaking at **Enclosure-1.**
- b. Acceptance on clauses of Tender Enquiry (TEF) in the Prescribed Format **appearing online** stating 'Accepted' OR 'Not Accepted' as applicable for each of the clause in the format attached at **Enclosure-2.**
- c. Acceptance on clauses of General Conditions of Contract (GCC) in the Prescribed Format appearing online stating 'Accepted' OR 'Not Accepted' as applicable for each of the clause in the format attached at **Enclosure-4.**
- d. Deviations, if any, from Terms, Conditions & Technical requirements specified in the Tender Enquiry, GCC with reasons thereof shall be clearly indicated against the relevant clause(s) in the format attached at **Enclosure-5.**
- e. CA Audited & certified Average Annual financial turnover during the last 3 years ending **31st March, 2023 TEF Clause No.7.2.7(a).** Bidders shall upload scanned copies of Audit certified Balance Sheets & Profit/Loss Accounts for the last 3 years. Draft Audited Reports are not acceptable.
- f. Bidders shall furnish Available bid Capacity as required in **TEF Clause No. 7.2.5** and **Enclosure-6 & 7** duly certified by Chartered Accountant and scanned copy of the same shall be uploaded in online Part-I bid
- g. Bidder shall submit Declaration certificate for Local Content as per **TEF Clause No. 40** and in the format attached at **Enclosure-10(B).** **A Sample filled up Form is appended for reference.**
- h. Bidder shall submit Declaration in respect of restriction under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 **TEF Clause No. 41** in the format attached at **Enclosure-10 (E).**
- i. Bidder shall submit Declaration in respect debarred under Public Procurement Policy (PPP) Make In India (MII) **TEF Clause No.40** order, in the format attached at **Enclosure-10 (F).**
- j. Bidder shall submit Declaration for Banned or delisted Tenderer/firms/Vendors as per **TEF Clause No.38** and in the format attached at **Enclosure-11.**
- k. Online transfer or NEFT Receipt.
- l. The scanned image of BG towards Earnest Money Deposit (EMD) / BID BOND as stipulated in **TEF Clause 9** shall be uploaded. The original of the above BG towards Earnest Money Deposit (EMD) / BID BOND shall be sent by Registered Post/Speed Post/Courier in a sealed envelope super scribing Tender Enquiry No. and Due date, so as to reach within 07 Days from the closing date of the tender during office working hours i.e. up to 1730 hrs., **addressed To,**

बिभाग प्रमुख(बाह्यस्त्रोत),
बाह्यस्त्रोत -तकनीकी सेवाएँ,
छटा मंज़िल, सर्विस ब्लॉक बिल्डिंग,
नॉर्थ यार्ड, माझगांव डॉकशिपबिल्डर्स लिमिटेड,
डॉकयार्ड रोड, मुंबई - ४०००१० (भारत)
**Head of the Department (OTS),
OTS-TS Department,
6th Floor, Service Block Building,
North Yard,
Mazagon Dock Shipbuilders Limited,
Dock Yard Road, Mumbai - 400010 (INDIA)**

The address label of the addressee is at Enclosure 27 on the envelope

- m. Integrity Pact shall be **duly signed and stamped on all pages** and the scanned image of the **Integrity Pact (IP)** as stipulated in **TEF clause no. 8 and Enclosure-13** shall be uploaded along with the Technical Bid. **The original of the Integrity Pact shall be sent by Registered Post/Speed Post/Courier in a sealed envelope** super scribing Tender Enquiry No. and Due date, so as to reach



- within **07 Days** from the closing date of the tender during office working hours i.e. up to 1730 hrs, to the above address.
- n. Scanned copy of Bank details for payment by NEFT/RTGS/ECS with authenticated by the Banker in the format attached at **Enclosure-14**.
 - o. Bidders shall upload scanned copy of Solvency certificate for at least **Rs 60 Cr.** In case of JV, Solvency certificate of Lead bidder for the above mentioned amount to be submitted. The Solvency Certificate should not be older than One Year as on the Tender date. It should be issued by a Scheduled Commercial (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-operative banks or Regional Rural Banks).
 - p. Scanned copy of **GST Registration Certificate & Permanent Account Number (PAN)**.
 - q. Bidder should have valid ESIC code as per ESIC act and PF code- Bidder should have valid registration with Employees Provident Fund Organization under 'EPF and Miscellaneous Provisions Act, 1952'
 - r. Scanned copy of Valid Bidder's Shop & Establishment Registration Certificate or Certification of Incorporation from Registrar of Companies or registration certificate from Registrar of firms.
 - s. In case of Bidder registered with Mazagon Dock Shipbuilders Limited **may upload scanned copy** of Valid Registration Certificate issued by MDL, for the items/services for which the offer is being submitted.
 - t. Power of Attorney, in case of a Limited or Private Limited Company or a corporation.
 - u. CHECKLIST OF SUBMITTALS attached along with online Technical Bid as per format at **Enclosure-26**.
 - v. Declaration in respect of Conflict of Interest among Bidders/Agents- **Enclosure-29** to be filled and submitted duly signed and stamped.
 - w. Signed copy of Corrigendum if issued by MDL.
 - x. Submission of Document with reference to TEF 7.2.7.b, related to Working Capital as on 31 Mar' 2025, duly signed & stamped by Chartered Accountant.
 - y. Submission of blank rate sheet at Enclosure-19 indicating quoted / not quoted against rate, GST % & HSN Code.
 - z. The conditions of Joint Venture/ Consortium are as under:
Tenders submitted by a consortium/ joint venture as partners shall comply with the following requirements:
 - (i) The maximum number of partners in a Consortium/JV shall be limited to three only.
 - (ii) Once the tender is submitted, the JV/Consortium Agreement (on a Non-Judicial Stamp Paper) shall not be modified / altered / terminated during the validity of the Tender and Contract
 - (iii) The EMD shall be submitted by the Lead Member on behalf of the Consortium/JV.
 - (iv) Prequalification of JV/Consortium: JV/ Consortium should meet all the prequalification criteria collectively, some by the lead partner, and some by the other partner, as briefly described below:
 - (i) Qualifying factors for lead partner: (i) Annual Turnover from Construction; (ii) particular construction experience
 - (ii) Adequate sources to meet financial commitments on other contracts;
 - (iii) financial soundness;
 - (iv) Holding Companies: For purpose of turnover criteria, the turnover of a holding company may be clubbed with only one of the fully



- owned subsidiary bidding company with appropriate legal document proving such ownership.
- (v) The tenderer shall declare the lead & other partners as below
- | Names of all partners of a joint venture | |
|--|--|
| 1. Lead partner | |
| 2. Partner | |
| 3. Partner | |
- (vi) A member of the Consortium/JV shall not be permitted to participate either in individual capacity or as a member of another Consortium/JV for this particular tender.
- (vii) The successful Tenderer (Lead Partner) shall sign the Contract which will be legally binding on all partners;
- (viii) One of the partners shall be authorized to act as leader of the consortium or joint venture; and this authorization shall be evidenced by submitting a Power of Attorney signed by legally authorized signatories of all the partners;
- (ix) The leader of the consortium or joint venture shall be authorized to incur liabilities and receive instructions for and on behalf of any or all partners of the joint venture and the entire execution of the Contract including payment shall be done exclusively with the lead partner of the joint venture.
- (x) All payments against the contract shall be released in INR.
- (xi) Notwithstanding clause above, all partners of the consortium/joint venture shall be jointly and severally liable for the successful completion of the work.
- (xii) The Consortium/JV members shall be jointly and severally liable for the loss, damages caused to the Employer/Client during the course of execution of the contract or due to non-execution of the contract or part thereof.
- (xiii) A scanned copy of the consortium or joint venture agreement confirming the above aspects, duly signed by legally authorized signatories of all the partners in the presence of a Magistrate/Competent Authority of Court of Law of respective country / Notary Public on a valid stamp paper, shall be submitted with the Tender & hard copy of the same in original to be forwarded separately within 7 days, after tender closing date.
- (xiv) Each of the Consortium/JV members should give a declaration that there have not been any instances of Cancellation of a contract, of Joint Venture/Consortium in which they were a partner, on account of reasons other than non-performance such as the most experienced partner (lead partner) of JV/Consortium pulling out.
- (xv) The Consortium/JV Agreement shall also contain the following:
- Complete details of the members of the Consortium/ JV,
 - Their share /apportioning of work between the partners, by nature of work, role and responsibility particularly with reference to financial and technical,
 - Name of the Lead Member,
 - Powers given to the Lead member, among others
 - A relevant statement to effect the following
 - The leader of the consortium or joint venture shall be authorized to incur liabilities and receive instructions for and on behalf of any or all partners of the joint venture and the entire execution



- of the Contract including payment shall be done exclusively with the leader of the joint venture.
- (ii) Notwithstanding the above, all partners of the consortium/joint venture shall be jointly and severally liable for the successful completion of the work.
 - (iii) The Consortium/JV members shall also be jointly and severally liable for the loss, damages caused to the Employer/Client during the course of execution of the contract or due to non-execution of the contract or part thereof.

Notes:

- i) MDL has a right to verify / cross verification of authenticity of the scanned documents with respect to original submitted against this tender.
- ii) The bidder is requested to **ensure that all the documents asked for are submitted** and are clear, legible & duly signed (i.e. self-attested), as it would save considerable time without necessitating the need for furnishing of the documents again by them. The bidder is also requested **not to submit unnecessary documents not asked for, like signed & stamped copy of this Tender document, etc.**
- iii) Bidders are requested to ensure that only relevant documents complete in all respect as indicated in the tender should be attached with their offer. The first page of every uploaded set of scanned document shall be with an index of its contents. In case the offers received against this tender are more than 20, no opportunity will be extended for submission of deficient documents after opening of bids. The evaluation of the offers will be carried out and bidders will be qualified based on the documents received along with their offer.
- iv) MDL reserves the right to seek clarification/ deficient documents from all the bidders quoted against the tender if number of the techno-commercially qualified bids are less than X+5 where X is the number of order proposed to be placed.
- v) The bidder is required to compulsorily select “ACCEPTED” or “DEVIATION” from the choices available against the relevant Para no. /Clause no. of TEF/GCC (as applicable). In case “DEVIATION” is selected against a particular Para no. /Clause no., it would be mandatory to explain the deviation proposed by the bidder in the Deviation form at **Enclosure-5**. Any deviation(s) mentioned elsewhere in the Offer/Bid, other than in the said forms, will not be considered.

5.1.2. मूल्य हिस्सा(भाग-२) /Price Bid (Part-II):

- a. Price Bid as appearing in the format is to be filled by the bidder ONLINE ONLY.
- b. The quantities of individual items in the BOQ are approximate and may vary.
- c. The Lowest Bidder (L1) shall be evaluated based on the overall cost quoted by the bidder including applicable Goods & Service Tax.
- d. However, Purchase Preference in line with **Clause No 40.2** shall be given to Class I Local Supplier.
- e. If a firm quotes NIL charges/consideration, the bid shall be treated as unresponsive and will not be considered.
- f. The Bidder should fill in rates and prices for all items of the works described in price schedule. Items for which no rate or price is entered by the Bidder will not be paid for by MDL when executed and shall be deemed covered by the other rates and prices in the price schedule.

6. बोलियाँ में संशोधन /MODIFICATION TO THE BIDS :

- 6.1. Bidders desirous of modifying their bids prior to the closing date & time may do so online in the e-Procurement Portal <https://eprocuremdl.nic.in> prior to the tender closing date & time.

7. पूर्व योग्यता मापदंड/ PRE-QUALIFICATION CRITERIA:



7.1. **Technical PQC**

7.1.1. Bidder's Experience:

The bidder's experience of having manufactured, installed and successfully commissioned Level Luffing Cranes during last 15 years ending 30th June 2025 should be either of the following:

7.1.1.1. Three (3) numbers of ELL Jib Cranes of minimum load moment capacity of 2100 Ton-Metre.

OR

7.1.1.2. Two (2) numbers of ELL Jib cranes of minimum load moment capacity of 2625 Ton-Metre.

OR

7.1.1.3. One (1) number of ELL Jib crane of minimum load moment capacity of 4200 Ton-Metre.

OR

7.1.1.4. One (1) number Goliath/Gantry crane of minimum capacity of 150 Ton and at least one (1) number of ELL Jib crane of Minimum capacity of 40 Ton of any radius.

7.1.2. Designer's Experience:

Bidder has to declare designer (Basic Design) for the project who meets the criteria mentioned below. Single bidder or Lead partner or consortium Partner or third party designer can act as a designer.

Designer for the crane should have designed (Basic design) at least one ELL Crane of minimum load moment capacity of 2520 Ton-Metre, which has been successfully installed & commissioned.

7.1.3. Notes for Bidder's and Designer's Experience:

Bidder shall submit the copy of the following:

7.1.3.1. Work order copy/Purchase order copy/ contract agreement copy/ GA drawing and crane commissioning report issued by the Class Surveyors/ Third Party Inspection Agency or Completion Certificate/ Performance Certificate/ Acceptance Certificate issued by the client.

7.1.3.2. In case of Work orders issued in language other than English by clients outside India, bidder shall submit English translation copies of the credentials above duly attested by Indian Embassy or Notary vetting.

7.1.3.3. TDS copy in case of Work Completion Certificate issued by Private firms.

7.1.3.4. In addition to above, Bidder should be:

7.1.3.4.1. Original equipment manufacturer (OEM) having experience of similar work.

OR

7.1.3.4.2. Consortium/ Joint Venture of two or more companies which include OEM/ designer as one of the Firms and bidder as other firm.

OR

7.1.3.4.3. Licensed Manufacturer wherein the OEM and Bidder enter into a License agreement for manufacture of cranes. Further, the bidder should have made separate/supplementary agreement with OEM specifically for this Tender. Copies of the license agreement along with the supplementary agreement to be submitted.



OR

- 7.1.3.4.4.** Bidder entering into MOU with OEM having experience for this tender.
- 7.1.3.5.** The minimum criteria for experience of this tender should be met by OEM/ Designer or any one firm of Joint Venture/ Consortium/ License Agreement / Firms entering into MOU.
- 7.1.3.6.** The Lead Partner (in case of JV/Consortium) or Licensee (in case of License Agreement) has to necessarily be a firm/entity registered in India.
- 7.1.3.7.** The bidder shall be in a position/capable of sending the technical experts including logical systems/drive experts to the site within 48 hours of receiving maintenance call from MDL.
- 7.1.3.8.** Bidders willing to participate in the tender shall visit the Shipyard (MDL) to fully familiarize themselves with the intended location, the prevailing site conditions and any possible constraints in advance/ prior to submitting their offer”.
- 7.1.3.9.** Tenders submitted by a consortium/ joint venture as partners shall comply with the following requirements:
- 7.1.3.9.1.** The maximum number of partners in a Consortium/JV shall be limited to three only.
- 7.1.3.9.2.** The tenderer shall declare the lead & other partners as below –
- Names of all partners of a joint venture
1. Lead partner
 2. Partner
 3. Partner
- 7.1.3.10.** A member of the Consortium/JV shall not be permitted to participate either in individual capacity or as a member of another Consortium for this tender.
- 7.1.3.11.** The successful Tenderer (Lead Partner) shall sign the Contract which will be legally binding on all partners.
- 7.1.3.12.** One of the partners shall be authorised to act as leader of the consortium or joint venture; and this authorization shall be evidenced by submitting a Power of Attorney signed by legally authorised signatories of all the partners.
- 7.1.3.13.** The leader of the consortium or joint venture shall be authorized to incur liabilities and receive instructions for and on behalf of any or all partners of the joint venture and the entire execution of the Contract including payment shall be done exclusively with the leader of the joint venture. The lead partner should have registered office in India & all payments against the contract shall be released in INR.
- 7.1.3.14.** Notwithstanding clause 7.1.3.9 above, all partners of the consortium/joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorisation mentioned under sub paragraph (b) above as well as in the Tender Form and the Contract Agreement (in case of a successful Bidder).



- 7.1.3.15.** The Consortium/JV members shall also be liable jointly and severally for the loss, damages caused to the Employer/Client during the course of execution of the contract or due to non-execution of the contract or part thereof.
- 7.1.3.16.** A scanned copy of the consortium or joint venture agreement confirming the above aspects, including apportioning of work between the partners, by nature of work, duly signed by legally authorized signatories of all the partners in the presence of a Magistrate of an Indian Court of Law / Notary Public on a valid stamp paper, shall be submitted with the Tender & hard copy of the same in original to be forwarded separately within 10 days, after tender closing date.
- 7.1.3.17.** Complete details of the members of the Consortium, their share, role and responsibility particularly with reference to financial and technical, name of the Lead Member, powers given to the Lead member, among others, shall be furnished in the said Consortium/JV Agreement.
- 7.1.3.18.** Once the tender is submitted, the Consortium Agreement shall not be modified / altered / terminated during the validity of the tender.
- 7.1.3.19.** In case Projects submitted by the firm is carried out for a Project where the firm has formed Joint Venture/Consortium, the share of the firm in the Joint Venture/Consortium shall be considered for turnover/prior experience.

In respect of the above, following shall be applicable

- (i) Similar completed works referred above means each work and not all works put together. It is clarified that the work executed by the bidders for their in-house or capital use will not be considered for the purpose of bidder's experience of completion of similar works. The work executed under labour rate where input materials which are supplied by client shall not be considered as experience in similar completed works.
 - (ii) Successfully completed or substantially completed similar works can also be considered for above similar works. Substantial completion shall be based on 80 (eighty) per cent (value wise) or more works completed under the contract. (Note: Substantial completion should not be defined in terms of percentage completion, rather it should be based on functional consideration.)
 - (iii) Client certificate for 'substantial project/work/asset should contain two parts. Part-I shall 'Financial value of work done' or client certified invoice and Part-II shall contain; certificate of functional completion of project/work/asset'.
- 7.1.4. Documentary evidence in support of similar completed works viz., copies of Work Order(s)/Contract Agreement(s) indicating contract amount, Project/Work value, Scope of Work etc. & Work Completion Certificate(s) issued by the Client(s) indicating proper reference of the Work Order/Contract Agreement & date of Completion, duly signed & stamped with company seal shall be scanned and uploaded online. Bidder shall submit scanned copies of TDS certificate/ Copies of Certified invoices of relevant projects when/if asked for by MDL during tendering period.
- 7.1.5. General Construction Experience:



The bidder should have achieved an annual turnover of general engineering works of at least Rs 21113 Lakhs in any of the year over a period of 15 years, ending 31st March 2024. Further out of the above annual turnover in the relevant year, the bidder should have achieved at least Rs 10556 Lakhs from Design, Manufacturing, Supply, Erection, Installation Testing and Commissioning ELL Cranes. Bidder has to submit a certificate from their Chartered Accountant for the above.

7.2. **Commercial PQC**

- 7.2.1. Submission of requisite Instrument in support of Bid Security viz. EMD/Proof of EMD Exemption.
- 7.2.2. Submission of Valid Bidder's Shop & Establishment Registration Certificate or Certification of Incorporation from Registrar of Companies or registration certificate from registrar of firms.
- 7.2.3. Submission of Integrity Pact.
- 7.2.4. Submission of Solvency Certificate.
- 7.2.5. Submission of Available Bid Capacity equal to or more than **Rs. 150 Crores**.

The Available Bid Capacity of the Bidder should be equal to or more than Rs. 150 Crores. The Available Bid Capacity shall be calculated as under:

Available Bid Capacity = $[1.5 \times A \times N] - B$, where

- i. A = Maximum value of engineering (Civil/ Electrical/ Mechanical as relevant to work being procured) works executed in any one year during the last five years (updated at the current price level by applying a weightage of 7% per annum), taking into account the completed as well as works in progress. Value of engineering works executed during last five years shall be certified by Chartered Accountant and shall be considered for evaluation.
- ii. N = Number of years prescribed for completion of work for which bids have been invited = **1.5 years (18 Months)**.
- iii. B = Value (updated at the current price level) of the existing commitments and ongoing works to be completed in the next 'N' years. This statement should be submitted duly verified by Chartered Accountant.

Note: -

- a. The yield rate of GoI bonds as on the closing date of the tender shall be considered as discounting factor for updation of the value of "B".
- 7.2.6. The Bidder shall submit the details as required in **clause 7.2.5** above in proforma at **Enclosure- 6 & 7**.
- 7.2.7. Financial Capabilities
- a. Bidder's average Audited Annual financial turnover during last 3 years ending 31st March 2024 should be at least **Rs. 45 Crores**, as per the annual report or audited balance sheet and profit and loss account of the relevant period, duly authenticated by a Chartered Accountant/ Cost Accountant.
 - b. The bidder should have access to, or possess available liquid assets and other financial means (independent of any contractual advance payments) sufficient to meet the construction cash flow requirements for the subject contract, of the certain minimum amount specified. The bidder should have adequate sources of finance to meet the cash flow requirements of works currently in progress and for future contract commitments. In support of the above, the bidder should have positive Working capital as on 31st March 2025.

**7.3. Clarification of Bids/Shortfall documents:**

- 7.3.1. During evaluation and comparison of bids, MDL may, at its discretion, ask the bidder for clarifications on the bid. The request for clarification shall be given in writing, asking the bidder to respond by a specified date & time.
- 7.3.2. If the bidder does not comply or respond by the said date, his offer will be liable to be rejected.
- 7.3.3. Post-bid clarification at the initiative of the bidder shall not be entertained.

7.4. In case Projects submitted by the firm is carried out for a Project where the firm has formed Joint Venture/Consortium, the share of the firm in the Joint Venture/Consortium shall be considered for turnover/prior experience.

7.5. In case of bids received from JV, the amounts mentioned under Para 7.2 to be met by the Lead partner.

7.6. MSE or Start-ups shall not be given any relaxation in prior turnover and prior experience.

Note: MDL reserves the right to demand hard copy(s) of any of the above documents along with originals to verify / cause verification of authenticity of the same, whenever felt necessary.

8. स्थल मुआयना /SITE VISIT:

8.1. The site for the work is located in MDL premises, Mumbai.

8.2. **It is considered necessary that the Bidder(s) shall visit the site and get clear idea about the work involved, before quoting. The Bidder(s) are therefore advised to visit the site and study all the particulars of the site and the nature of the work.**

8.3. Bidder(s), if required, may contact on telephone no. 022 2376 3410/ 3086 or email: **dmondal@mazdock.com** for any doubts /clarifications / site visits.

9. बयाना राशि/ बोली प्रतिज्ञापत्र /EARNEST MONEY DEPOSIT (EMD) / BID BOND:

9.1. Bidders shall furnish EMD of **10 Lakhs (Rupees Ten Lakhs Only)**, against this tender.

9.2. EMD can be paid online through the link mazagondock.in/onlinepayment.aspx Or following the steps listed below:

- Go to www.mazgondock.in
- Click on Online Payment Tab available on the home page
- Click on the Tender Tab.
- Make the payment online using Debit Cards, Credit cards, Net Banking, BHIM/UPI etc. after filling the required details.

9.3. The EMD can also be remitted directly to MDL Bank Account as per details given below:

Beneficiary's Name	Mazagon Dock Shipbuilders Limited
Name of Bank	State Bank of India
Branch	Mazagon Br.
Branch Code	9054
Bank Address	Mazagon Branch, Mazagaon, Mumbai – 400 010
Telephone No. of Bank	23752802



Account No	10005255246
Account Type	Current Account
IFSC Code	SBIN0009054
MICR / NECS Code	400002120
Income Tax PAN No.	AAACM8029J
Income Tax TAN No.	MUMM02076E

9.4. In case bidders pay EMD online or remit the same directly to MDL Bank account through NEFT, they should specifically mention the details of company name as well as nature of remittance, tender number/order number etc. in the text/narration fields of Bank's NEFT remittance in order to identify the same. The format at **Enclosure-12** is required to be filled up by the bidder and scanned copy of the same is to be uploaded along with Techno-commercial bid (Part-I).

9.5. EMD can also be submitted in the form of Bank Guarantee in the prescribed format at **Enclosure-15**. The Bank Guarantee (Including E-Bank Guarantee) should be valid for the offer validity period indicated in the Tender plus minimum one month as claim period and should be drawn from any of the banks from the list of Banks issued by a Scheduled Commercial (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-operative banks or Regional Rural Banks). The Bank Guarantee shall be kept valid till validity period of the offer plus 30 days. The original of the scanned copy of EMD (BG) should reach HOD (C)/ Dealing Executive within seven days of the tender closing date.

9.6. The Bank Guarantee shall be from banks as per list approved by SBI Bank published on MDL website

Bidders submitting EMD by way of Bank Guarantee are requested to inform their issuing Bank to provide complete details viz., address, telephone / fax number(s) and e-mail id on their cover letter enclosing the BG.

9.7. The Scanned Copy of the Bank Guarantee towards EMD shall be uploaded in the Techno-commercial bid (Part-I).

9.8. Bidder shall send the original of the Bank Guarantee towards Earnest Money Deposit (EMD) by Registered Post/Speed Post/Courier/In Person so as to reach the designated addressee within **07 Working Days** from the closing date of the tender during office working hours i.e. up to 1730 hrs. Timely submission of the original EMD instrument is the responsibility of the bidders and no reasons / excuses in this regard will be entertained by MDL. The Address Label of the Designated Addressee is at **Enclosure-27**

9.9. **Alternatively, bidder can submit the EMD in the form of ISB (Insurance Surety Bond) issued by an Indian Insurance company as defined in Section 2(7A) of the Insurance Act, 1938 and the Insurer should also be registered under the Insurance Act, 1938 to transact the business of general insurance and also registered with the IRDAI. The bond shall be irrevocable and unconditional. The Format for the ISB for EMD is attached at Enclosure-30.**

9.10. **If the original of EMD instrument is NOT RECEIVED within the stipulated period of 07 Days from the closing date of the tender, the Bids / Offers will be liable for rejection.**

9.11. Refund of EMD in all the cases shall be without interest as stated below:

- EMD will be refunded to the **techno-commercially** rejected bidders within 15 days from the date of price bid opening and remaining bidders within



30 days of determination of L1 or placement of Order on Successful bidder whichever is earlier.

- ii. In the event of cancellation of tender, the EMD will be refunded / returned to all the bidders
- iii. EMD of successful bidders may be converted into performance security or refunded on receipt of performance security B.G.
- iv. If the validity of the offer of the firm has expired and if bidder is not willing to extend the validity of offer, the EMD of such bidders to be refunded.

9.12. The Earnest Money Deposit shall be forfeited by MDL in the following events:

- 9.12.1. If the bidder withdraws, amends, impairs or derogates from the tender, agreed conditions of Technical Negotiation Committee/Commercial Negotiation Committee /Price Negotiation Committee in any respect within the period of validity of his offer.
- 9.12.2. If the successful bidder declines acceptance of order.

9.13. बयाना राशि जमा करने से छूट/बोली प्रतिज्ञापत्र / EXEMPTION FROM SUBMISSION OF EMD/BID BOND:

- 9.13.1. State & Central Government of India Departments & Public Sector Undertakings.
- 9.13.2. Firms registered with MDL. To qualify for EMD exemption, firms should necessarily submit valid copy of the Registration Certificate issued by MDL under materials group L005004 for the items for which the offer is being submitted, in Part-I offer/bid. Firms in the process of obtaining MDL registration will not be considered for EMD exemption.
- 9.13.3. Common/Deemed DPSU registered vendors qualify for EMD exemption. Such firms shall submit valid copy of the registration certificate issued by DPSUs (other than MDL) for the items/services for which the offer is being submitted in Part-I offer/bid. Firms in process of obtaining registration in other DPSUs will not be considered for EMD exemption.
- 9.13.4. Start-ups as recognized by Department of Industrial Policy and Promotion (DIPP).
- 9.13.5. Green Channel Status vendors qualify for EMD exemption. Such firms shall submit valid copy of the Green channel certificate issued by MoD for the items for which the offer is being submitted in Part-I offer/bid. Firms in process of obtaining this certificate will not be considered for EMD exemption.

Note: All the bidders including MSE's shall furnish EMD of 10,00,000/- (Rupees Ten Lakhs Only), against this tender. The procurement being of works, EMD exemption is not applicable for MSE bidder.

10. अखंडता समझौता / INTEGRITY PACT:

- 10.1. The Pact essentially envisages an agreement between the prospective vendors / bidders and MDL committing the persons / officials of both the parties, not to exercise any corrupt influence on any aspect of the contract.
- 10.2. Only **those vendors / bidders who enter into such an Integrity Pact with MDL would be competent to participate in the bidding.**



- 10.3. The Integrity Pact would be effective from the stage of invitation of bids till the complete execution of the contract. This pact begins when both parties have signed it. It expires for the Contractor **12 months** after the last payment under the contract and for all other bidders, **06 months** after the contract has been awarded.
- 10.4. Integrity Pact shall be **duly signed and stamped on all pages**. Bidders shall upload the signed Integrity Pact, as per format enclosed at **Enclosure-13** in the online Techno-Commercial Bid (Part-I). The hard copy of the '**INTEGRITY PACT**' shall be submitted in the office of Outsourcing (OTS) Department, 6th floor Service Block Bldg., NY, Mazagon Dock Shipbuilders Limited within 07 Days after closing of the tender.
- 10.5. The Integrity Pact would be signed by the Competent Authority in MDL & a copy returned to the bidder.
- 10.6. MDL has appointed **Independent External Monitors (IEMs)**, who will monitor the tender process and the execution of the contract, for compliance with all relevant laws, rules, regulations, economic use of resources and for fairness / transparency in its relations with its Bidder(s) and /or Contractor(s). The names and complete address with contact details of the IEMs are displayed on MDL's website www.mazagondock.in

11. वैधता अवधि /VALIDITY PERIOD:

11.1 Bids / Offers shall remain valid for a period of not less than **180 Days** after the deadline date of submission.

11.2 Techno-Commercially accepted bidder shall be given opportunity to accept validity as per the tender in case of shorter validity quoted by him. Non-acceptance thereafter the bid shall be rejected by MDL as non-responsive.

11.3 In exceptional circumstances, prior to expiry of the original validity of offer(s), the bidders will be requested to extend the period of offer validity for a specified additional period. The request and the bidder's responses shall be made in writing. If the bidder does not accept the request of MDL for extension of validity, the bid security will not be forfeited. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his bid security. In case techno-commercially accepted bidder/s does not agree to extend the offer validity, the offers of all techno-commercially accepted bidder/s including the bidder who has not agreed to extend their offer validity, shall be opened and proceed further with valid bids. If the bidder who has not agreed to extend their offer validity found to be L1 then his price shall be used as reference price for negotiation purpose as applicable.

12. निविदाएँ खोलने की प्रक्रिया /OPENING OF BIDS:

12.1. **Part-I (Techno-commercial Bid):** **Part-I bid will be opened online on the due tender** opening date from 14:30 Hrs onwards in OTS-TS Section, OTS-Dept. The bidder can view the tender online by logging their user ID on the portal <https://eprocuremdl.nic.in>

12.2. **Part-II (Price Bid):** After completion of Techno-Commercial scrutiny, intimation for opening of Part-II bid will be communicated only to Techno-Commercially accepted bidders. Such intimation may be given at a short notice by Fax, E-mail or even by telephone, only to the Techno-Commercially qualified bidder(s). The bidders can view the price bids online from their location by logging on to the portal <https://eprocuremdl.nic.in> with their Class-III B digital signature certificate.

13. बोलियों का मूल्यांकन/EVALUATION OF BIDS:



- 13.1. The Bidders should meet the criteria as stipulated in "Prequalification criteria" and submit all documents as stipulated in Clause "Techno-Commercial (Part-I) Bid"
- 13.2. The Price bid of only Techno-Commercially qualified bidders shall be opened.
- 13.3. The comparison of the responsive tenders shall be on **total outgo on Least Cost Net of Credit Basis (LCNC)**, for the procurement to be paid to the Contractor or the Service provider, including all elements of costs, duties, levies, freight, insurance etc. excluding GST (where ITC is available).
- 13.4. The applicable loading towards deviations shall be loaded for ranking purpose.
- 13.5. Discount given, if any, by the bidders, after the last date for submission of the bids but before opening of the price bids, will not be considered for determining the ranking of bids but will have to be considered after the said bidder is adjudged as L1.
- 13.6. Instances of multiple L1s: In cases where multiple bidders emerge as L1, the following action in the order of sequence shall be followed
 - (i) Offline sealed supplementary bids indicating discount offered over already quoted price shall be sought from such L1 bidders on a pre-determined date and time. The sealed supplementary bids shall be opened by tender opening executives in presence of representatives of those bidders on pre-determined date and time.
 - (ii) In case the above option is inconclusive, lottery option to be exercised.
- 13.7. Negotiations will be done with L1 bidders.
- 13.8. However, Purchase Preference in line with PUBLIC PROCUREMENT POLICY (Preference to Make in India) ORDER 2017 shall be extended to Class I Local Supplier. Order shall be placed accordingly on offered/negotiated price with such Class I Local Supplier, if the offered/negotiated price is acceptable to MDL
- 13.9. In case Purchase Preference is not applicable, the Order shall be placed on Lowest bidder (L1) in case the offered/negotiated price of L1 bidder is acceptable to MDL.

14. बोली अस्वीकृति करनेकी मापदंड /BID REJECTION CRITERIA:

- 14.1. The Following conditions/ deviations are non- negotiable and therefore any bid falling under these conditions/ deviations shall be **summarily rejected**. Bidders to note that they shall not be provided any opportunity to rectify these conditions/ deviations post bid opening:
 - 14.1.1. Bids received after tender closing date and time.
 - 14.1.2. Bids received other than through e-portal.
 - 14.1.3. Bidders who are debarred under Public Procurement Policy (PPP) Make In India MII) order 2017, GeM, CPPP including Tender holiday issued by MDL.
 - 14.1.4. Bids received without EMD (other than those who are exempted from payment of EMD or those submitting valid EMD Exemption document).
- 14.2. Non-compliance/non-acceptance to any of the terms and conditions of the tender shall render the bid liable for rejection;

Equal time and opportunity for submission of deficient techno-commercial documents and clarification shall be given to the bidders subject to **TEF clause no:5.1-ii-Note-s. no. iii & iv**. Bidders are required to submit such documents / clarifications within the duration / date stipulated by MDL failing which their bids are liable for rejection.
- 14.3. DISQUALIFICATION:

Even if a bidder meets the tender terms and conditions including prequalification criteria, bidder shall be subject to disqualification if he is found to have:



- (a) Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/ or;
- (b) On account of currency of debarment by MDL.

15. बेसलाइन शेड्यूल और प्रभावित शेड्यूल /Baseline Schedule and Impacted Schedule

15.1. Baseline Schedule and Impacted Schedule:

- (i) The Contractor to submit Baseline Schedule in MS Project, duly approved by EIC, before commencement of Project. In case of additional work, revised schedule to be submitted by the Contractor.
- (ii) Extension of Time Period shall be considered for delays not attributable to the Contractor only for the activities identified in the baseline schedule/ revised schedule. No Extension to the Contract shall be considered in case of failure of submission of Baseline Schedule and Impacted Schedule.
- (iii) Construction Drawings for any activity identified in the baseline schedule will be issued 60 days prior to start date of that activity.
- (iv) Contractor shall notify the MDL in writing at least 15 days in advance for any drawings/ sketches/ detailing required during execution of the work at site.

16. समापन अवधि /DELIVERY PERIOD/COMPLETION SCHEDULE:

- 16.1. The Completion period for entire work shall be **18 (Eighteen) MONTHS**. Detailed schedule is mentioned in SOW.
- 16.2. The successful bidder shall submit detailed bar chart/work schedule including activity, milestones, deployment of resources/manpower for execution of the work within 21 days after placement of the Purchase Order.

17. लामबंदी /MOBILIZATION:

- 17.1 The Contractor shall deploy his manpower, material & machinery such as to complete the entire work within 18 months.

18. मूल्य निर्धारण /PRICING:

- 18.1 All materials shall be procured by the contractor as specified in the Technical Specification/Bill of Quantities, at his own cost and the price quoted shall be deemed to be inclusive of all applicable taxes, transportation, storage, royalties, handling, etc. The contractor should produce challans / Invoices of the materials and its quantity brought to the site as and when required by MDL.

19. कर और शुल्क /TAXES AND DUTIES:

- 19.1. GST as per GST Laws shall be payable extra as quoted and agreed.
- 19.2. In case of purchases of goods/services from unregistered dealers under GST Laws, GST will be paid by MDL under reverse charge mechanism.
- 19.3. Benefits from reduction in rate of tax/ITC are required to be passed on to consumer. Where “applicable GST” has been quoted as extra, Goods and service providers (except unregistered dealers under GST Law) have to submit declaration that they have complied with ‘Anti-profiteering clause’ under GST Law. Such declaration be given in technical bid.
- 19.4. If the vendor is registered under GST, vendor shall mention the HSN code for goods &/or SAC for services in their tax invoice, etc. These codes must be in accordance with GST Laws and responsibility of specifying correct HSN codes for goods &/or SAC for services is that of the vendor. MDL shall not be responsible for any error in HSN code for goods &/or SAC for services specified by supplier / contractor. Supplier /Contractor shall pay penalty and/ or interest



imposed on MDL or any loss due to delay in availing ITC by MDL or any loss of ITC to MDL due to errors by vendors at any stage. MDL reserves right to recover any such interest, penalty or loss from any amount due to Supplier /Contractor or otherwise.

19.5. In case, MDL is unable to avail ITC, supplier/contractor at their own cost shall rectify the shortcoming in the returns to be filed immediately thereafter. Further, if the ITC is delayed / denied to MDL / reversed subsequently as per GST Laws due to non / delayed receipt of goods and / or services and / or tax invoice or expiry of timelines prescribed in GST Laws for availing ITC, non-payment of taxes or non-filing of returns or any other reason not attributable to MDL, Supplier /Contractor shall pay any loss of amount along with interest and penalty on MDL under GST Laws for the number of days the ITC was delayed. If the short coming is not rectified by supplier/contractor and MDL ends up in reversal of credits and / or payments, supplier /contractor is fully liable for making good all the loss incurred by MDL. MDL reserves right to recover any interest, penalty or loss from any amount due to Supplier /Contractor or otherwise.

19.6. If the vendor is registered under GST, the GST registration number (15 digit GSTIN) issued by GOI shall be mandatorily provided by the vendor. Vendor having multiple business verticals within state / at multiple states with separate GST registration numbers shall forward GSTIN of only that vertical which is involved in supply of goods and/or services. MDL GSTIN is **27AAACM8029J1ZA** and vendor shall mention the same while invoicing and avoid any data entry error on GST portal.

19.7. If the vendor is registered under GST, Vendor shall ensure timely submission of invoice as per the provisions / requirement / timeline promulgated by GOI in relation to GST Law with all required supporting documents to enable MDL to avail input tax credit promptly. The vendors invoice inter alia should contain GSTIN of vendor, GSTIN of MDL (i.e. **27AAACM8029J1ZA**), GST tax rate separately, HSN code wise goods or services, place of supply, signature of vendor, etc. Original invoice needs to be submitted to Bill Receipt Centre at MDL gate, and a copy of the invoice should be given to the goods receiving section (GRS).

19.8. If the vendor is registered under GST, vendor shall file all applicable returns under GST Laws in the stipulated time & any losses of tax credit to MDL arising due to delay in filing will be recovered from their invoice wherever MDL is eligible to avail tax credit. Any default towards payment of tax and / or uploading of monthly returns by supplier/contractor, MDL retains right to withhold payments towards tax portion until the same is corrected & complied by the supplier/contractor with the requirement of GST along with satisfactory evidence.

19.9. The rate sheet enclosed with the tender will indicate the rates to be entered under each head wherever applicable. Bidders must clearly mention the applicable Taxes & Duties unless otherwise stated in tender. The item-wise rates (i.e. Basic +P&F+F&I) quoted in the Rate Sheet should exclude Taxes & Duties. Bidder should indicate GST rates as applicable separately under each of the head in the same Rate sheet, which will be paid extra based on tax invoice to the extent applicable. The GST will be applicable on total basic rate of each item (i.e. Basic + P&F + F&I).

19.10. **Stamp Duty:** It shall be incumbent on the Contractor to pay Stamp duty on the contract. As per the provision made in article 63, Schedule-I, read with section 30, of the Maharashtra Stamp Act (Bombay Act LX of 1958), Stamp duty is payable by the Contractor for “works contract” that is to say, a contract for works and labour or services involving transfer of property in goods (whether as goods or in some other form) in its executions and includes a sub-contract, as under:

Contract Value	Stamp Duty
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a. Where the amount or value said forth in work contract does not exceed ₹10 Lakhs.	₹500.00
b. Where it exceeds ₹10 Lakhs	₹500.00 +0.1% of the amount above ten lakhs subject to maximum of ` Rs 25 lakhs.

Note: The Stamp Duty is applicable on Base value excluding GST.

19.11. Bidder(s) will not be entitled to any increase in rate of taxes occurring during the period of extended delivery schedule, if there is delay in supply / completion attributed to him. However, if there is a decrease in taxes, the same must be passed on to MDL.

19.12. Wherever all-inclusive prices are quoted by the Bidder(s) without bifurcation of tax elements, no Price Variation can be considered in respect of any variations in statutory levies arising subsequently because of the absence of the required base figures in the purchase order / contract.

19.13. Taxes and other levies shall be deducted at source, wherever applicable, from the invoices of the Contractor/Bidder as per statutes.

19.14. Any increase/decrease in taxes, duties & levies or introduction of new taxes due to change in the legislation shall be subject to adjustment During currency of the original contract period.

19.15. **LABOUR CESS:** Deduction towards Labour Cess shall be made from invoices of contractor in line with 'Building & Other Construction Workers (BOCW) Act,1996. The Contractors who are having 20 or more workers have to be registered under BOCW (RE& CS) Act,1996. The Contractor shall ensure compliance of the same, if applicable to them.

20. भुगतान की शर्तें /TERMS OF PAYMENT:

20.1. Stage payment shall be applicable as mentioned in SOW.
MDL payment terms shall be as under:

- i. The payment for work done after reducing any deductibles and/or the amount leviable towards liquidated damages, if any and after including statutory taxes, duties and levies as applicable will be made through RTGS/NEFT/ECS as per the actual quantities of the work executed by way of running account invoices per item basis (R. A.) Preferably as on monthly basis.
- ii. The invoices must be submitted in four copies (**1-Original + 3 copies**) along with the joint measurements taken at site duly approved by the designated representatives of the Technical Services department.
- iii. The payment against invoices will be made within 15 days of its receipt in MDL provided submission of invoice in totality along with all the necessary documents as under:
 - a. Invoice Certification as per **Enclosure-24**,
 - b. Joint Measurement sheets duly signed & stamped by MDL,
 - c. Soft copy of Joint Measurement sheets
 - d. SAP generated work completion certificate indicating deduction if any duly signed & stamped by MDL
 - e. Copy(s) of invoices of materials,
 - f. Vendor's self-Declaration (Refer **Clause 20.1.viii**) wherever applicable,



- g. Certification of Disposal of Scrap/ Debris as per **Enclosure-28**
- iv. Before submission of the final bill, the Contractor should sign and submit the following:
- Actual Local Content Certificate as per **Enclosure- (D)**
 - A "No Claim Certificate" indicating that he has no claim against the company under the contract except as included in the final bill.
 - Taking over certificate issued by Engineer In charge, MDL
- v. On request from Contractor, ad-hoc payments of not less than 75 % of eligible running account bill/due stage payment, shall be made within 10 working days of the submission of complete bill along with all applicable documents. The remaining payment is also to be made after final checking of the bill within 28 working days of submission of complete bill along with all applicable documents by the contractor.
- vi. For Items where Basic Rates of Items are specified in The Contract:
- The Contractor must necessarily submit copy(s) of challan and invoice of all such materials used in the works immediately on receipt of the materials in MDL. In case, the basic rate of the material procured is less than that indicated against the respective item, the difference in the amount of basic rate of the material procured and the Basic Price indicated in the respective item in the Contract shall be deducted from the invoices.
 - In case, MDL specifically desires to adopt certain material in lieu of the material mentioned in the item in Bill of Quantities wherein the basic rate is indicated, the difference in the amount of basic rate of the material to be procured and the Basic Price indicated in the respective item in the Contract shall be paid extra over and above the quoted/ negotiated price of the item provided that MDL conveys it in writing before execution of said item. In such cases, the Contractor must necessarily submit copy(s) of challan and invoice of all such materials used in the works immediately on receipt of the materials in MDL.
- vii.**Electronic Invoicing System (EIS):** In any preceding financial year from 2017-18 onwards Contractor whose turnover is more than **₹ 5 Crores** on award of Purchase order, need to issue E invoice to MDL, which has an Invoice Registration Number (IRN) and a Quick Response (QR) code. An invoice without an IRN and QR code will be treated as an invalid invoice and MDL will not be entitled for Input Tax Credit (ITC)/ GST on a vendor Invoice which is not compliant with the above invoice notification.
- viii.**Vendor's self-declaration:** Wherever GST is applicable, payment will be released against **e-Invoice** (refer **TEF Clause No. 20.1.vii**) or Invoice accompanied with **Vendor's self-declaration** stating that " **we do not fall under the category of registered persons notified under Rule 48(4) of the Central GST Rules, 2017 and we are not required to comply with the e-Invoicing provisions under GST Act, as our aggregate turnover in any preceding financial year from 2017-18 onwards has not exceeded ₹ 5 Crore as per GST Act**"
- ix.**Alternate MSME vendor payment through TReDS:**
In order to address the financial needs of MSME firms, GoI has introduced a platform for facilitating the financing of trade receivables of MSMEs from buyers, through multiple financiers which is termed as Trade Receivables Discounting System (TReDS). At TReDS, auctioning of invoices at competitive & transparent environment is done by financiers based on Buyer's credit profile.



MDL is registered on the "Invoicemart" TReDS platform and M1xchange of M/s Mynd Solutions Pvt. Ltd. Further, MDL has entered into an agreement with M/s.Receivables Exchange of Indica Limited (RXIL) for registration on TreDs platform. As a special gesture, all the above three discounting platforms i.e M/s.RXIL, Invoice Mart and M1Exchange have offered waiver of registration / on boarding fees to MDL Vendors MSME bidders desirous to receive payments through TReDS platform may avail the facility if they are already registered on

1."Invoicemart" TReDS platform or by registering on it.
Contact details at "Invoicemart" TReDS platform are as below:
022 6235 7373 and a new mail id service@invoicemart.com.

2. "M1xchange" TReDS platform or by registering on it.
Contact details at "M1xchange" TReDS platform are as below:
+91 9920455374 Ms. Ashwathi Jayandran
email id ashwathi.jayandran@m1xchange.com
+91 8839915724 Ms. Prinyaka Shah Email id prinyaka.shah@m1xchange.com

21. वृद्धि/PRICE VARIATION: Not Applicable.

22. परिनिर्धारित हर्जाना /LIQUIDATED DAMAGES:

22.1. Time is the essence of the contract and therefore the job, as ordered, should be completed on the dates mutually agreed upon in accordance with the delivery schedule. In cases of delay not attributable to MDL beyond the agreed schedule, the Contractor shall pay liquidated damages, a sum representing 0.5% (Half percent) per week or part thereof, subject to maximum of 10% of the contract value (completed value).

22.2. If the Contractor fails to complete the works within the time or extended time as per the Order, then the contractor shall pay to MDL the sum stated above as liquidated damages for such default and not as a penalty for every day or part of a day which shall elapse between the time prescribed or extended time as the case may be and the date of completion of works. MDL may without prejudice to any other method of recovery deduct the amount of such damages from any monies in his hands due or which may become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works or from any other of his obligations and liabilities under the contract.

23. दोष दायित्व अवधि/DEFECT LIABILITY PERIOD (DLP):

23.1. The defect liability period shall be **Three Year** from the date of actual completion of entire work. However, in case Part of the work has been taken over by MDL, the Defect Liability Period pertaining to that part shall commence from the date of taking over of that portion by MDL. Defect Liability Period for the balance part shall commence from the date of actual completion of entire work'.

23.2. Defect Notification Period is 15 days from the last date of Defect Liability period.

23.3. The contractor shall have to rectify any defects noticed in the work either by way of bad material or workmanship during the Defect Liability Period at no extra cost to MDL, on priority.

23.4. CLAIMS BY FIRMS: No claims by the firms will be entertained after 03 years from completion of Defect Liability Period.



24. अनुबंध निष्पादन गारंटी / **CONTRACT PERFORMANCE GUARANTEE**

24.1. Within 25 days after placement of order, the Contractor shall submit "PERFORMANCE BANK GUARANTEE" as per MDL format at **Enclosure-16** for 10% of contract value excluding taxes valid till 60 days beyond the stipulated Defect Liability Period of One year from actual completion of entire work.

24.2. In case of increase in the Contract Value during execution of work: -

- i. In case of Contract value increases more than 10% during execution of the work, within 25 days after issue of Amendment of Purchase order, the contractor shall submit the additional "PERFORMANCE BANK GUARANTEE" of 10% of additional contract value excluding taxes valid till 60 days beyond the stipulated Defect Liability Period of One year from actual completion of entire work.
- ii. No additional Bank Guarantee for amended value upto 10% of Original Order Value is required

24.3. The Bank Guarantee shall be submitted by the bidders preferably in E-BG mode or through SWIFT drawn in favour of MAZAGON DOCK SHIPBUILDERS LIMITED, MUMBAI. The Bank Guarantee shall be only from the list of Banks issued by a Scheduled Commercial (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-operative banks or Regional Rural Banks). The Issuing Bank Notified vide OM No.F.9/4/2020-PPD issued by Department of Expenditure dated 30.12.2021 should also state the name and designation of the next Higher Authority of the Officials who have issued the Bank Guarantee. Crossed DD / Pay Order issued by Co-operative banks however may be considered to be accepted and the bid would be considered accordingly.

24.4. The Bank Guarantee shall be from banks as per list approved by SBI Bank published on MDL website

Bank Guarantee from banks not mentioned in the aforesaid approved list shall NOT be accepted.

24.5. Rolling Bank Guarantee towards Performance Security can be submitted with the validity period of at least One year with a claim period of three months within which the same to be extended by the contractor for further period by Amendment.

24.6. In case of non-submission of PBG within 25 days of Placement of Purchase Order, there is likelihood of cancellation of the order.

24.7. In case of delays in submission of the Performance Bank Guarantee, the amount towards the Bank Guarantees shall be retained from the subsequent Invoice. The same shall be returned to the Contractor, without interest, on submission of the Bank Guarantee and receipt of confirmation from the bank. In such case, MDL reserves the right to charge Interest @ SBAR+2% from the firm for such period of delays.

24.8. The Performance Bank Guarantee will be returned only after expiry of the 60 Days beyond the stipulated Defect Liability Period of One years from actual completion of entire work, provided there are no pending defects for rectification, already notified to the contractor. However, in cases where rectification of defects notified are not likely to be completed by the Contractor before expiry of the DLP, the Contractor will have to extend the Performance Bank Guarantee suitably or as requested by MDL.

24.9. The BG's should contain the following:

- i. The name, designation and code number of the Bank officer(s) signing the Guarantee.



- ii. The address and other details (including telephone No.) of the controlling officer of the Bank issuing the BG.

24.10. In case the validity of the Bank Guarantee is on the verge of expiry and the same is not the extended /not renewed by the contractor as per order terms, MDL reserves the right to forfeit the same.

24.11. Alternatively, bidder can submit the Performance security in the form of ISB (Insurance Surety Bond) issued by an Indian Insurance company as defined in Section 2(7A) of the Insurance Act, 1938 and the Insurer should also be registered under the Insurance Act, 1938 to transact the business of general insurance and also registered with the IRDAI. The bond shall be irrevocable and unconditional. The Format for the ISB for Performance Security is attached at Enclosure-31.

25. जलरोधी गारंटी /WATERPROOFING GUARANTEE- Not Applicable.

26. जल रिसाव के खिलाफ बैंक गारंटी/ BANK GUARANTEE AGAINST WATER LEAKAGE- Not Applicable.

27. बीमा / INSURANCE:

27.1. The Contractor has to keep MDL indemnified against any claims by purchasing **ERECTOR'S ALL RISK** insurance policy for the value of the Contract from any Insurance Company of repute.

27.2. The policy shall be obtained in the **joint names of MDL and the Contractor**, with MDL's name appearing first. The Policy should be of full value of the Contract and shall be valid till the completion of the works. Contractor shall submit the policy within 21 days from the date of placement of order or before commencement of work whichever is earlier. The Original EAR Policy shall be deposited with Engineer in Charge and copy to be submitted to HOD (OTS) and shall be extended well in time as required.

27.3. In case Contract value increases more than 10% from Original Contract value during execution of the work, the contractor shall submit the additional "**ERECTOR'S ALL RISK** insurance of additional contract value. No additional insurance policy is required in case the Contract value increases upto 10% of Original Contract Value or upto Rs 5 lakhs whichever is lower.

27.4. The original of policy shall be lodged with MDL.

27.5. In case Contractor fails to submit valid EAR policy of full value of contract, their workmen shall not be allowed to enter inside MDL premises/ working areas and Engineer-In-Charge may issue prior Notice for Stoppage of work.

28. ठेकेदार का दायित्व /CONTRACTOR'S OBLIGATION:

28.1. Bidder shall abide by all Terms of Tender Enquiry (TEF), General Conditions of Contract (GCC) for Civil Works and respective acceptance formats **are to be filled as appearing online in e-Techno-Commercial (Part-I) bid**. The bidder shall also abide by the statutory requirements, Official Secret Acts 1923, Safety Code and Security Procedure, which can be downloaded from www.mazagondock.in→ Tenders → Technical Services.

- i. The Contractor shall pay to his employees not less than the minimum wages and other statutory obligations applicable to the Engineering Industry as notified from time to



- time **by the Central Government or the State Government whichever is higher** under Minimum Wages Act.
- ii. The Contractor shall be responsible for timely payment of wages of all his employees engaged in the Purchaser's Yard, not less than the prescribed minimum wages in each case and without any deductions of any kind, except as specified by Government or permissible under the Payment of Wages Act.
 - iii. The Contractor must settle all the pending dues of the employees i.e. arrears of wages, proportionate leave wages, proportionate bonus payment, etc.
 - iv. Before winding up the site, the Bidder / Contractor shall pay all terminal dues to his employees such as Notice pay, Gratuity, Retrenchment compensation, etc.

28.2. Breach of Obligation with respect to Bid submitted: In case of breach of any obligation mentioned under, the bidder shall be disqualified / debarred from the bidding process for a period of one year from the date of notification:

- i. Bidder has withdrawn / modified / amended / impaired / derogated from the tender during the period of bid validity
- ii. Bidder fails or refuses to execute the contract upon notification of acceptance of bid by the Purchaser during the period of bid validity.

29. नियम और शर्तों की स्वीकृति/ACCEPTANCE OF TERMS AND CONDITION:

29.1. In case of improper on-line filling of Acceptance Formats for Tender Enquiry Form, General Conditions of Contract (GCC), it shall be presumed that all our tender terms & conditions are acceptable to bidder.

30. कार्य एवं माप का क्रियान्वयन /EXECUTION OF WORK AND MEASUREMENT:

30.1. All works shall be carried out and measured as per specifications and standard Engineering practice and mode of measurements, conforming to the relevant IS code. The Contractor shall ensure that skilled workmen in their respective trades are employed. He shall also employ qualified Engineer(s) / Supervisor(s) experienced in similar type of work, as required, for execution of work efficiently.

30.2. Request for permission for working on Saturday / Sunday / holidays if required, should be submitted 3 working days prior to the date of holiday, to Personnel department and Security through Technical Services Department.

30.3. The work is to be carried out in the area where MDL's normal activities are in progress. The Contractor has to plan his work in such a way as not to disturb the normal activities of MDL. The contractor shall not be paid for any compensation for idle period if generated due to any reason whatsoever. Reasonable extension in time, however, may be considered on application in writing along with supporting Documents.

30.4. All the quantities indicated in the Bill of Quantities are indicative only. However, the Contractor shall be paid for the actual work carried out at site in line with the Contract terms and conditions.

30.5. All the works under or in course of execution or executed in pursuance of the contract shall at all times be open to inspection and supervision of the MDL and the Contractor at all times during the usual working hours, offer assistance for the inspection of work. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.



30.6. The Contractor shall submit supporting documents such as Invoice of Materials, Delivery Challan(s), Release note from the nominated Inspection Agency, Test reports / Certificates, Packing Lists, Invoice, Performance Guarantee, Storage / Preservation / Installation / Commissioning / Maintenance Procedures & other Technical documentation in requisite sets as relevant along with the invoice for the purpose of certification by MDL.

30.7. Contractor shall submit Reconciliation Statement for Steel, Cement, Concrete and other materials along with invoice for checking/ verification by MDL Executives before certification and processing of invoice.

30.8. Contractor shall be responsible for procuring all the materials required for construction. Contractor shall arrange for testing of materials from approved laboratory and submission of test certificates as per specification in accordance with relevant IS Codes. The cost towards testing is deemed to be included in the quoted rates.

30.9. All construction materials procured by the contractor should be of approved quality and free from defects. MDL has got all the Rights to Test and Reject any material in part or in full at any point of time. MDL reserves the right to take random samples from materials delivered by the Contractor at site and send the same for testing at Govt. approved laboratory(s). Cost towards the same shall be borne by the Contractor.

30.10. The contractor shall give seven days' notice for MDL to arrange representatives for inspection at their works. Testing of samples shall be made in the presence of MDL representatives. Materials shall be delivered to MDL site only after clearance from MDL along with test certificates. MDL reserves the right to take random samples from materials delivered by the Contractor at site and send the same for testing at Govt. approved laboratory(s). Cost towards the same shall be borne by the Contractor.

30.11. Contractor shall arrange for equipment's / instruments with valid calibration certificate as required at site. The cost towards the same is deemed to be included in the quoted rates.

30.12. The Contractor shall comply with the sanitary requirements of the local Medical Health Authorities and bear the cost of any charges levied by such Authorities for the execution of work.

30.13. Availability of Construction material

During the tenure of the Contract due to the various reasons, there may be scarcity of availability of construction material in Mumbai region & this type of crises may be for short term or long term. In such circumstances, Contractor shall arrange to procure the Material available from other state/region of India with no additional cost to MDL. The cost of the same is deemed to be included in Bidder's quote.

30.14. **Special Condition of Contract.**

GENERAL GUIDELINES FOR POSTING OF TECHNICAL STAFF FOR THIS WORK AT SITE.

1. On award of work, Contractor to submit an organogram highlighting site team as well as office staff. Nevertheless, a minimum technical team staff as detailed below is required at site failing which suitable recovery shall be made.:

Sr. No.	Designation Technical Staff	Total No's	Qualifications	Minimum Experience (Years)	Duration	Rate at which recovery shall be made from



						the contractor in the event of not fulfilling
1	2	3	4	5	6	7
1	Project Engineer	1	Graduate Mechanical Engineer	12 Years	From Commencement of Installation till Commissioning of the crane at site.	Rs 40,000/- per month.
2	Site Engineer	2	Graduate Mechanical Engineer and Electrical Engineer	05 Years	From Commencement of Installation till completion of the Crane at Site.	Rs 25,000/- Per Month.
3	Safety Officer	1	Diploma in safety	3 Years	Till completion of work	Rs. 15,000/- Per Month

31. अनुबंध की निगरानी/MONITORING OF CONTRACT:

31.1. The Contractor shall record; submit to the Engineer daily, progress report for the preceding day showing up to date progress and progress during the previous day on all items of each section of the works in relation to and in consideration of the schedule. In addition, the Contractor shall submit on the second day of every fortnight, a detailed progress report giving the progress of the works during the preceding fortnight and also indicating the up to date progress of the work.

31.2. The Contractor shall appoint the Contractor's Representative with prior written approval from the MDL and shall give him all authority necessary to act on the Contractor's behalf under the Contract.

31.3. The Contractor shall not, without the prior consent of the MDL, revoke the appointment of the Contractor's Representative or appoint a replacement.

31.4. The Contractor's Representative shall, on behalf of the Contractor, receive instructions from MDL.

31.5. The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Purchaser has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked. The Contractor shall appoint a team of qualified persons having adequate experience in execution of such works for assisting the Contractor's Representative.

31.6. The Contractor has to co-ordinate with the other specialised agencies so working on the project so as to ensure a proper end product of the work.

32. ठेकेदार का दायरा/CONTACTOR'S SCOPE:



32.1. **Power:** Power, if available and required by the Contractor, may be supplied in single phase or three phases, at a single nearby source free of cost. The contractor shall make his own arrangement for electrical fittings, cables/wires, welding transformers, etc. at his own cost.

32.2. **Water:** Water, if available, and required by the Contractor, may be supplied by MDL free of cost. However, the contractor shall make his own arrangement for connecting lines, storage etc. at his own cost.

32.3. **Equipment/Machinery:** The contractor shall make his own arrangement for all equipment, machinery, tools and tackles etc.

32.4. **Construction Material:** All the materials required for works procured by the Contractor shall be of reputed make and as approved by MDL. The rate shall be inclusive of transportation, storage, security, handling etc.

32.5. **Consumables:** All the consumables required for the works including temporary works, allied/ associated job etc. shall be procured by the Contractor including transportation, storage, security, handling etc.

33. अतिरिक्त कार्य /EXTRA ITEMS/VARIATION IN QUANTITY:

33.1. Extra items of works, if any, shall be determined supported by a rate analysis which needs to be submitted by the Contractor. The Rate Analysis shall contain bifurcation of Material, Labour, transportation and Overhead and Profit Components:

i. Rates derived from similar items of this Contract.

OR

ii. Rates for similar items of work executed through other agencies for MDL recently.

OR

iii. Rates mutually agreed to.

33.2. Variation in the quantities of items in the BOQ is permitted at the same rates provided the total value of the growth does not exceed 25% of the original order value. The same is binding to the contractor and the contractor shall execute the same at the specified rate in the Purchase Order for that item.

33.3. MDL reserves the right to conduct price negotiations with the Contractor in the following cases:

i. Finalization of rates for extra items.

ii. To seek reduction in the unit rates of the items for the excess quantity, if the total value of variation in quantities exceeds 25% of the original order value

34. बाधा / HINDRANCE:

34.1. A Hindrance Register as per attached format at **Enclosure-22** shall be maintained with the Designated Representative from TS Department. The Contractor shall submit schedule for completion of work and get it signed by MDL Engineer in charge of the project. The Schedule shall list out the major milestones leading to the completion of work as per final delivery date stipulated in the PO/Contract.

34.2. The Hindrance Register shall document the following aspect post placement of the PO/Contract: -

- i. Reasons for the delay vis-à-vis the mutually agreed schedule
- ii. Delay in inputs (Drawings/ Documents/ Site Clearances/ Services/ Inspection Call)
- iii. Delay by Inspection Agency/ Customer



- iv. Delay on account of specialist services
- v. Non-performance by the Contractor
- vi. Delinquency by the vendor
- vii. Force Majeure
- viii. Any other relevant reason

34.3. All the hindrances with date of occurrence and removal are to be noted in the hindrance register. The Hindrance Register will be signed by the Designated Representatives from Technical Services Department (MDL) and the authorized Signatory from the Contractor side.

34.4. The Contractor may record their observations in the hindrance register. Any objections raised by the contractor shall be attended to and resolved without any delay.

34.5. In case the contractor has a different opinion for hindrance and a dispute arises, then the matter shall be referred to next higher authority in MDL and the decision shall be communicated to the Contractor within 15 days. The Contractor shall note that the decision of the next higher authority from MDL in case of dispute in respect of hindrances during the course of executing an order/ contract shall be final and binding on the contractor.

34.6. In case, MDL is unable to remove the hindrance immediately and if it is likely to take some time, the contractor shall be informed accordingly by the user. In such cases the contractor on MDL's approval may reduce manpower deployed on the work. **The Contractor shall also note that Under no circumstances Contractor shall be paid for idle manpower.**

35. **कचराहटाना /DEBRIS REMOVAL/ स्वच्छता/HOUSEKEEPING:**

35.1. Debris generated during execution of work shall be promptly disposed off outside MDL. The site will be maintained clean at all times and the Contractor is expected to budget for the same. Also, during dignitary visits, temporary works materials, debris etc. shall be shifted suitably without any additional cost to MDL.

35.2. In case debris is not removed within two days, MDL will remove the same and the charges towards debris removal @ Rs. 10,000/- per truck shall be deducted from Contractor's RA bills. Engineer-In-charge shall keep the record of the same and forward the details of recoveries in Invoice Certification.

35.3. The site will be maintained neat and clean at all times and the Contractor is expected to budget for the same. MDL has Designated Bins separately for Scrap Steel, Wood Scrap & Rubbish. Contractor shall segregate unusable scrap steel, wood, rubbish, if any, and deposit the same in the nearest respective bin.

35.4. The contractor to submit Certification of Disposal of Scrap/ Debris as per **Enclosure-28**

36. **सुरक्षा और प्रशिक्षण /SAFETY AND TRAINING:**

36.1. During the Construction Period, Safety Engineers shall be deputed on site as and when required and directed by MDL. This is mandatory requirement.

36.2. All the workers, Engineers of the contractor shall have Safety PPE's (Personnel Protective Equipment's) like Safety Helmets, Safety Shoes, Safety Belts, Hand Gloves, and Goggles etc. Contractors shall also have provision for minimum 5 to 10 visitors PPE's. The periphery of the building shall be covered with the Green net. The contractor shall also provide Safety net and Safety Belts for height work.



36.3. All workers on site shall adhere to the best safety practices applicable. All personal, process & material safety procedures shall be planned & implemented on site. Training & regular inspection shall ensure that safety standards are met.

36.4. First Aid kit & First aid training shall be given to all key members of the Site team.

36.5. Proper signage's shall be placed on site. Warning in case of any critical/hazardous activity shall be given prior to starting of such activity.

36.6. All workers, supervisor's contractor shall optimum training regarding all aspects of site management prior to commencement of work

36.7. Please refer Safety Instruction for sub Contractor's as Enclosed at Annexure 'A'.

37. ठेकेदार के कर्मचारियों का पुलिस सत्यापन /POLICE VERIFICATION OF CONTRACTOR'S EMPLOYEES:

37.1. The Contractor shall have to obtain Police Verification Report (PVR) of their Employees prior to deployment at MDL site for execution of the work. A Detailed procedure for Entry Passes for Contractor's Employees is displayed on MDL's website www.mazagondock.in → Tenders → Technical Services. In addition to this for loss of pass, bidders shall refer **Enclosure-23. BIDDERS ARE REQUESTED TO NOTE THE SAME. NO RELAXATION SHOULD BE ASKED FOR.**

38. प्रतिबंध निविदाकार/फर्म/विक्रेता/BANNED OR DE-LISTED TENDERER/FIRMS/ VENDORS:

38.1. The Bidder / Contractor declares that they being Proprietors / Directors / Partners have not been any time individually or collectively blacklisted or banned or de-listed by any Government or quasi Government agencies or PSUs. If a Tenderer's entities as stated above have been blacklisted or banned or de-listed by any Government or quasi Government agencies or PSUs, this fact must be clearly stated in the prescribed format **online** at **Enclosure11**. Filling the information in the said format is Mandatory for every Tenderer. MDL reserves the right to ask for additional information and right to accept / reject the bid.

39. मूल्य वरीयता /PRICE PREFERENCE:

39.1. NO PRICE PREFERENCE SHALL BE GIVEN TO ANY BIDDER IRRESPECTIVE OF THEIR STATUS.

40. सार्वजनिक खरीद नीति (मेक इन इंडिया को प्राथमिकता) आदेश 2017/PUBLIC PROCUREMENT POLICY (Preference to Make in India) ORDER 2017:

The Government of India has issued revised Public Procurement (Preference to Make in India) order 2017 on 16th Sep 2020 as part of its policy to encourage "Make in India" and promote manufacturing and production of goods and services in India with a view to enhancing income and employment. Subject to the provisions of this order and to any specific instructions issued by Nodal Ministry or in pursuance of this order, Purchase Preference shall be given to local suppliers in all the procurements undertaken by MDL in the manner specified below:

40.1. **Aspects of 'Preference to Make in India':** The following terminology / definitions used in the policy is enumerated below and applicable to the tender:

- i. **Local content:** means the amount of value added in India which shall be the total value of item (goods, services or works or their combination) under procurement (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value in percent.

Note:



- a) The local content can be increased by vendors through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them.
- ii. **Class-I Local Supplier:** means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I Local Supplier' under this Order.
- iii. **Class-II Local Supplier:** means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II Local Supplier' but less than that prescribed for 'Class-I Local Supplier' under this Order.
- iv. **Non-Local Supplier:** means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II Local Supplier' under this Order.
- v. **Minimum Local Content:** The 'Local Content' requirement to categorize a supplier as 'Class-I Local Supplier' is minimum 50%. For 'Class-II Local Supplier', the 'local content' requirement is minimum 20%.
- vi. L1: means the lowest tender or lowest bid or lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.
- vii. Margin of Purchase Preference: means the maximum extent to which the price quoted by a Class-I Local Supplier may be above the L1 for the purpose of purchase preference. The margin of purchase preference shall be 20%.

Note:

1. Procedure for determination of L1 price for the purpose of deciding eligibility for Purchase Preference shall be as per tender Ranking criteria.
2. If Price/s of all Class I Local Supplier/s is more than 20% of L1's price, no purchase preference shall be applicable.

40.2. Purchase Preference (PP):

40.2.1 Subject to the provisions of the Order and to any specific instructions issued by the Nodal Ministry or in pursuance of the Order, purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under: In the procurements of goods or works, which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- a) Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
- b) If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
- c) In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be



invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

- d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

40.3. Reciprocity Clause:

- i) Entities of countries which have been identified by the nodal ministry/ department as not allowing Indian Companies to participate in their Government procurement for any item related to that nodal ministry shall not be allowed to participate in Government Procurement in India for all items related to that Nodal Ministry/ Department, except for the list of items published by the Ministry/ Department permitting their participation.
- ii) The term 'entity' of a country shall have the same meaning as under the FDI policy of Department for Promotion of Industry and Internal Trade(DPIIT) as amended from time to time.

40.4. Declaration/ Verification of Local content

- i) Participating bidders to indicate the percentage of local content (i.e. value added in India) along with the details of location/s where the local value addition is made, in their bids, item wise or tender wise. The indicated local content percentage shall decide categorization of the vendors as "Class-I Local Supplier" / "Class-II Local Supplier" / "Non-local Supplier". All bidders should declare that the item and service offered meets the minimum local content & indicate its percentage in their offer which shall meet or excel required local content specified in tender. This declaration is necessary even if Custom Duty Exemption and / or ERV (if applicable) are not being sought. Certification as under is to be submitted mandatorily in technical Offer-Part-I bid.

The bidders shall provide a certificate, as per **Enclosure-10(B)**, statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of supplier other than companies) giving the percentage of local content.

- ii) **Bidders to be noted that once the declaration / certification is committed at tender submission stage, the same cannot be altered subsequently at technical negotiation stage or after award of contract otherwise would be treated / considered as false declaration by bidder and necessary action shall be initiated as per Para 40.6 of the said Order for debarment.**
- iii) Declared Local Content shall be the basis for categorization of the vendors and tender evaluation. However, MDL reserves the right to undertake detailed examination of declared local content and may call vendor to submit relevant documents.
- iv) In cases where MDL received the complaint from any vendor or person, along with the fees prescribed below, verification of Declared Local Content shall be carried out by seeking additional info as deemed necessary and the bidders (including unsuccessful bidders) against the tender shall be obliged to furnish the necessary documents. Failing to do so, the vendor may invite penal action as per the provisions of the Order. If MDL possess the capability, then it shall perform the verification. However, if in the opinion of MDL matter needs to be dealt at higher level, then the complaint shall be referred to Nodal Ministry and their fees / expenses / charges applicable as per the Nodal Ministry, if any, shall be borne by the complainant. MDL is authorized to prescribe fees for handling complaints under revised PPP MII 2017 Order. The fees for filing a complaint under the



order shall be Rs. 10,000/- per case. The complaint shall be filed to the Chairman, Public Grievance Cell. The fee shall be deposited by complainant in MDL's Account by NEFT.

- v) On scrutiny of offer, if all the bidders participating in the tender happen to have either not submitted the declaration certificate or not declared /specified the local content percentage in the declaration certificate or specified local content lower than the minimum local content requirement as per the tender, the subject tender shall be cancelled & matter shall be taken up with Ministry through MDL Nodal Executive. Meanwhile, retendering may be done without applying the provisions of said Order for need fulfilment of MDL.
- vi) On opening of the price bids, if it is identified that there is difference in local content declaration made & local content percentage as per price quoted is now not meeting (i.e. lesser than) the specified tender requirement (i.e. only on the quoted price without any loading) then such bidder shall be disqualified and shall not be considered for ranking purpose. The bid would be treated / considered as given false declaration and necessary action for debarment shall be initiated.

40.5. Price negotiation & contract placement:

- i) MDL has right to negotiate with L1 bidders on the quoted prices. However, it shall be ensured that Local Content percentage as declared by the vendors maintained or increased but not reduced.
The supplier shall provide a Local Content Certificate **Enclosure-10(D)**, from statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of supplier other than companies) giving the percentage of local content.
- ii) Supplier shall be intimated that the supporting documentation towards realization of committed Local Content as per the contract / order terms & conditions shall be maintained for a period of seven years from the date of completion of the contract for audit purpose. Nodal Ministry may constitute committees with internal & external experts for independent verification of self-declarations and auditor's / accountant's certificates on random basis and in the case of complaints.

40.6. Debarment of bidders / suppliers:

- i) False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of GFR 2017 for which a bidder or its successors can be debarred for up to 2 years as per Rule 151(iii) of GFR 2017 along with such other actions as may be permissible under law.
- ii) A supplier who has been debarred by any procuring entity for violation of said Order shall not be eligible for preference under said Order for procurement by any other procuring entity for the duration of debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in such a manner that ongoing procurements are not disrupted.

41. सामान्य वित्तीय नियमों के नियम 144 (xi) के तहत प्रतिबन्ध/ Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017:

41.1. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

41.2. "Bidder" (including the term 'tenderer', 'Consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons or firms or companies), every



artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

41.3. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -

- a) An entity incorporated, established or registered in such a country; or
- b) A subsidiary of an entity incorporated, established or registered in such a country; or
- c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d) An entity whose *beneficial owner* is situated in such a country; or
- e) An Indian (or other) agent of such an entity; or
- f) A natural person who is a citizen of such a country; or
- g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

41.4. The beneficial owner for the purpose of **41.3** above will be as under:

- i. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(S), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation---

- a) "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
- b) "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholder's agreements or voting agreements.
- ii. In case of a partnership firm, the beneficial owner is the natural person(S) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
- iii. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- iv. Where no natural person is identified under **(41.4.i)** or **(41.4.ii)** or **(41.4.iii)** above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
- v. In case of a trust, the identification or beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

41.5. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.



41.6. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

41.7. The bidders shall provide Declaration in respect of restriction under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 in the prescribed format as per **Enclosure-10 (E)**.

42. सार्वजनिक शिकायत कक्ष /PUBLIC GREIVANCE CELL

42.1. A Public Grievance Cell headed by **Executive Director (Tech)** has been set up in the Company. Members of public having complaints or grievances are advised to contact him on Wednesday between 10:00 hours and 12:30 hours in his office on **4th Floor, D2 Building, East yard, MDL** or send their complaints / grievances to him in writing for redressal. His Telephone No. is **022- 2376 3512 / 2372 3426 / 8879399826**

43. विवाद समाधान तंत्र /DISPUTE RESOLUTION MECHANISM(DRM) and मध्यस्थता /ARBITRATION:

43.1. Refer General Conditions of Contract Clause No. 23,24,25.

44. अधिकार क्षेत्र /JURISDICTION:

44.1. Refer General Conditions of Contract Clause No. 26.

45. एमडीएल का अधिकार /MDL's RIGHT:

45.1. MDL reserves the right to consider placement of Order / Contract in part or in full against the tendered quantity or reject any or all tenders without assigning any reasons thereof.

46. बोलीदाताओं / एजेंटों के बिच हितों का टकराव / CONFFLICT OF INTERESST AMONG BIDDERS /AGENTS:

46.1. Conflict of Interest among bidders/ Agents: A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of MDL's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) They have controlling partner(s) in common; or
- b) They receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- c) They have the same legal representative/agent for purposes of this bid; or
- d) They have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
- e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid.
- f) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/ management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidder must proactively declare such sister/ common business/ management units in same/ similar line of business.

46.2. Declaration in respect of Conflict of Interest among Bidders/ Agents as per format at **Enclosure-29** is to be submitted by bidder.



47. FREAK LOW QUOTES: Bid is considered as Freak Low, If the quoted L-1 rate is less than Cost Estimates by more than 40% and difference between the basic rates of L1 and L2 is more than 30% as compared to L1 price. In case after opening of price bid of technically cleared firms, it is noted that L-1 firm has quoted very low rates and indicates to withdraw from the tender then firm may be given tender holiday including intimation to GEM and other PSUs. MDL reserves the right of part-ordering the services.

We look forward to your participation in on-line bidding by offering your most competitive and reasonable bid against this tender.

Yours faithfully,
For **MAZAGON DOCK SHIPBUILDERS LIMITED,**
GM/HOD (OTS)

**Enclosures:**

1.	Enclosure-1	-	Form of undertaking to be furnished by the bidder
2.	Enclosure-2	-	Tender Enquiry Acceptance Form
3.	Enclosure-3	-	Details Of General Construction Work
4.	Enclosure-4	-	General Conditions of Contract (GCC) Acceptance Form- GCC attached separately.
5.	Enclosure-5	-	Deviations from Tender Enquiry Form/ GCC
6.	Enclosure-6	-	Financial Information of Bidder
7.	Enclosure-7	-	Details of Existing Commitments & On-going Works- Calculation of Bid capacity.
8.	Enclosure-8	-	Particulars of Experience in Similar Projects
9.	Enclosure-9	-	Personnel available with the Contractor for this Project - NA
10.	Enclosure- 10(B)	-	Declaration Certificate for Local Content (Sample Filled up Form for Filling Enclosure-10 (B) ATTACHED SEPERATELY)
11.	Enclosure- 10(D)	-	Actual Local Content Certificate
12.	Enclosure- 10 (E)	-	Declaration in respect of restriction under Rule 144 (xi) of the General Financial Rules (GFRs), 2017
13.	Enclosure- 10 (F)	-	Declaration in respect of debarred under Public Procurement Policy (PPP) Make In India (MII) order 2017
14.	Enclosure-11	-	Banned or Delisted of Firm/Vendor
15.	Enclosure-12	-	MDL Bank Account Details for Online Remittance of Security Deposit/ Performance Bank Guarantee
16.	Enclosure-13	-	Integrity Pact
17.	Enclosure-14	-	RTGS/NEFT/ECS – Mandate Authorisation Form
18.	Enclosure-15	-	Proforma Bank Guarantee format for Bid Bond / EMD
19.	Enclosure-16	-	Proforma for Performance Bank Guarantee
20.	Enclosure-17	-	Performa for Waterproofing Bank Guarantee - Not applicable for this tender
21.	Enclosure-18	-	Performa for Bank Guarantee against water leakage- Not applicable for this tender
22.	Enclosure-19	-	Blank Rate sheet - to be submitted online
23.	Enclosure-20	-	List of Drawings – Not applicable
24.	Enclosure-21	-	Scope of Work
25.	Enclosure-22	-	Hindrance Register Format
26.	Enclosure-23	-	Loss of Pass
27.	Enclosure-24	-	Invoice Certification Format
28.	Enclosure-25	-	Extract of Official Secrets Act, 1923
29.	Enclosure-26	-	CHECKLIST OF SUBMITTALS ATTACHED ALONGWITH ONLINE TECHNICAL BID
30.	Enclosure-27	-	Address Label
31.	Enclosure-28	-	Certification for Disposal of Scrap/Debris
32.	Enclosure-29	-	Declaration in respect of Conflict of Interest among Bidders/ Agents
33.	Enclosure-30	-	ISB format for Bid Bond / EMD
34.	Enclosure-31	-	ISB Format for Performance Bank Guarantee



35.	SAMPLE FORMAT	-	SAMPLE FORMAT FOR FILLING ENCLOSURE-10 (A) OF TENDER
36.	Statutory requirements & Safety clause	-	<u>To be downloaded from our website www.mazagondock.in</u>
37.	Procedure for security passes	-	<u>To be downloaded from our website www.mazagondock.in</u>
38.	ANNEXURE-A		<u>SAFETY INSTRUCTIONS FOR SUB-CONTRACTORS IN MDL, attached separately</u>
39.	ANNEXURE-B		<u>STANDARD TERMS AND CONDITION (HR) FOR STATUTORY COMPLIANCE WHILE ENGAGING SUB-CONTRACTORS/ OUTSOURCED MANPOWER AND ITS UNIT attached separately</u>

**Enclosure-1****FORM OF UNDERTAKING TO BE FURNISHED BY THE BIDDER**

(To be typed on Bidder's Letter head)

To,
The General Manager (OTS),
OTS-TS Section
Mazagon Dock Shipbuilders Limited,
Dockyard Road, Mumbai-400 010.
Sir,

Sub: Design, Manufacturing, Supply, Erection, Installation, Testing and Commissioning of 01 no 150/20T Level Luffing (LL) Jib Crane at Alcock Yard, MDL.

Ref: MDL Tender Enquiry No. 1900000228

1. Having visited the site and having examined the General Conditions of Contract, Special Conditions of Contract, Technical Specifications and Bill of Quantities for the above named work, we offer to construct, complete and maintain the whole of the said works in conformity with the said General Conditions of Contract, Special Conditions of Contract, Technical Specifications, and Bill of Quantities for the sum stated in Bill of Quantities included in this Tender Document for such other sum as may be ascertained in accordance with the said conditions of Contract.
2. We undertake to complete and deliver the whole of the works comprised in the Contract within the time stated in this tender.
3. We have independently considered the amount of Liquidated damages indicated in the tender and agree that it represents a fair estimate of the loss likely to be suffered by you in the event of the work(s) not being completed in time.
4. If our Tender is accepted, we will, when required, obtain the guarantees from a Bank (to be approved by you) to be jointly and severally bound with us for the sum named in the tender for the due performance of the Contract under the terms of a Bond to be approved by you.
5. The Erector's All Risk Policy for the full value of the Contract valid till the completion period will be obtained by us in the joint names of Mazagon Dock Shipbuilders Limited and ourselves.
6. We agree to abide by this Tender for the period of **180** days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiry of this period.
7. Unless and until a formal Agreement or Order is prepared and executed, this tender together with your written acceptance thereof, shall constitute a binding Contract between us.
8. We understand that if our Tender-Bid is accepted, we are to be jointly and severally responsible for the due performance of the Contract.
9. We understand that you are not bound to accept the lowest or any Tender you may receive.
10. We undertake to comply with the Anti-profiteering provisions of GST Act 2017 and we will pass on the benefits from reduction in the rate of Tax/input Tax credit if any, to MDL and there will be no liability on MDL on account of GST/Input Tax Credit.

Dated this _____ day of _____ (year)

Signature _____ in the capacity of _____

duly authorised to sign Tenders for and on behalf of _____

(IN BLOCK CAPITALS)

Witness:

Signature _____ Address of Witness _____

Name _____ Occupation _____

**Enclosure-2****TENDER ENQUIRY (TEF) ACCEPTANCE FORM**

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED

TENDER ENQUIRY No. 1900000228

TEF CLAUSE NO.	TENDERER'S REMARK	TEF CLAUSE NO.	TENDERER'S REMARK
	ACCEPTED/ DEVIATION		ACCEPTED/ DEVIATION
1		25	Not Applicable
2		26	Not Applicable
3		27	
4		28	
5		29	
6		30	
7		31	
8		32	
9		33	
10		34	
11		35	
12		36	
13		37	
14		38	
15		39	
16		40	
17		41	
18		42	
19		43	
20		44	
21	Not Applicable	45	
22		46	
23		47	
24			

COMPANY'S NAME & ADDRESS :

SIGNATURE:

DATE:

NAME:

DESIGNATION:

TENDERER'S COMPANY

SEAL:



NOTES :

1. Bidder(s) should carefully read the Tender Enquiry Terms & Conditions (TEF) included in the tender prior to filling up this acceptance format.
2. Bidder(s) should indicate Accepted/ Deviation Taken for each clause number in the above table.
3. Bidder(s) to attach Separate Sheet indicating all relevant details such as Number & description of the Clause, Reasons for Deviation and Alternative suggested for any deviations taken by them in the prescribed format indicated at **Enclosure-5**.
4. TEF clause numbers shown in the above format also includes the sub-clauses under these clauses. For example 4 means – clause nos. 4, 4(i), 4(ii) etc.

**Enclosure-3**

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

MDL Tender No. 1900000228

Details of General Construction Work

(To be typed on Bidders Letterhead & submitted)

Sr. No	Financial Year	Particulars	Amount in Rs.
1		Annual turnover of general construction work in any of the year over a period of 07years, ending 31st March 2024	
2		Out of the above, annual turnover in the relevant year from Design, Manufacturing, Supply, Erection, Installation, Testing and Commissioning ELL Cranes.	

Signature of Chartered Accountant
with Seal

Signature and Seal of the Bidder



Enclosure-4

ACCEPTANCE FORM FOR GENERAL CONDITIONS OF CONTRACT (GCC)

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED

TENDER ENQUIRY No. 1900000228

GCC CLAUSE No.	TENDERER'S REMARK	GCC CLAUSE No.	TENDERER'S REMARK	GCC CLAUSE No.	TENDERER'S REMARK
	ACCEPTED/ DEVIATION		ACCEPTED/ DEVIATION		ACCEPTED/ DEVIATION
1		38		75	
2		39		76	
3		40		77	
4		41		78	
5		42		79	
6		43		80	
7		44		81	
8		45		82	
9		46		83	
10		47		84	
11		48		85	
12		49		86	
13		50		87	
14		51		88	
15		52		89	
16		53		90	
17		54		91	
18		55		92	
19		56		93	
20		57		94	
21		58		95	
22		59		96	
23		60		97	
24		61		98	
25		62		99	
26		63		100	
27		64		101	
28		65		102	
29		66		103	
30		67		104	
31		68		105	
32		69		106	
33		70		107	
34		71		108	
35		72		109	
36		73		110	Not Applicable
37		74			



COMPANY'S NAME & ADDRESS:

SIGNATURE:

DATE:

NAME:

DESIGNATION:

TENDERER'S COMPANY

SEAL:

NOTES:

1. Bidder(s) should carefully read the General Conditions OF CONTRACT (GCC) of the Tender Enquiry prior to filling up this acceptance format.
2. Bidder(s) should indicate Accepted/ Deviation Taken for each clause number in the above table.
3. Bidder(s) to attach Separate Sheet indicating all relevant details such as Number & description of the Clause, Reasons for Deviation and Alternative suggested for any deviations taken by them in the prescribed format indicated at **Enclosure-5**.
4. Clause numbers shown in the above format also includes the sub-clauses under these clauses. For example, Clause no. 56 means – Clause nos. 56, 56 i), 56 a) etc.

**Enclosure-5**

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

MDL Tender No. 1900000228

DEVIATIONS FROM CONDITIONS OF TENDER ENQUIRY FORM/GCC/ Technical specification

All deviations from the Conditions of Tender Enquiry Form/ GCC shall be filled in by the bidder clause by clause in this Schedule. If deviations are discussed in the covering Letter of Tender, then reference to the said letter shall be made below.

Clause No.	Contractual requirement	Deviation proposed by the Bidder	Reason for proposed deviation
(1)	(2)	(3)	(4)

The Bidder hereby certifies that the above mentioned are the only deviations from the Conditions of Contract.

SIGNATURE _____

NAME _____

DESIGNATION _____

COMPANY SEAL COMPANY _____

DATE _____

**Enclosure-6**

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.

MDL Tender No. 1900000228

Financial Information of Bidder

(To be typed on Bidders Letterhead & submitted)

Description	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Maximum Value ₹
	V	W	X	Y	Z	(A)
Maximum value of engineering (as relevant to work being procured) works						
Above Value updated at the current price level by applying a weightage of 7% per annum						

Signature of Chartered Accountant
with Seal

Signature and Seal of the Bidder

**Enclosure-7**

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.

MDL Tender No. 1900000228

Details of Existing Commitments & On-going Works

(To be typed on Bidders Letterhead & submitted)

1	2	3	4	5	6	7	8
Sr. No.	Name of the Work/Project	Contract Value (₹)	Date of start as per PO/Contract	Date of Completion as per PO/Contract	Work Done up to the preceding Month of submission of Bid (₹)	Value of existing commitments and on-going works to be completed (for all the Clients of the Bidder) during the period of completion of work for which bids have been invited (₹)	Value updated at the current price level (₹)

Note: The bidder shall also include the value of all such works which are awarded to bidder but yet not started up to the last day of preceding month of submission of bid.

CALCULATION OF AVAILABLE BID CAPACITY

(a) Available Bid Capacity = $[A \times N \times 1.5] - B$, where

- i. A = Maximum value of engineering (as relevant to work being procured) works executed in any one year during the last five years (updated at the current price level by applying a weightage of 7% per annum), taking into account the completed as well as works in progress. Value of engineering works executed during last five years shall be certified by Chartered Accountant and shall be considered for evaluation.
- ii. N = Number of years prescribed for completion of work for which bids have been invited = **1.5 (18 Months)**.
- iii. B = Value (updated at the current price level) of the existing commitments and ongoing works to be completed in the next 'N' years. This statement should be submitted duly verified by Chartered Accountant.

Note: -

- a) The yield rate of GoI bonds as on the closing date of the tender shall be considered as discounting factor for updation of the value of "B".



Available Bid Capacity = ₹_____

Note: The bidder should attach the proof for 'A' & 'B' mentioned above.

Signature of Chartered Accountant
with Seal

Signature and Seal of the Bidder

**Enclosure-8****PARTICULARS OF EXPERIENCE IN SIMILAR PROJECTS**

The General Manager,
OTS Department,
6th Floor, Service Block Bldg. NY,
Mazagon Dock Shipbuilders Limited,
Dock Yard Road,
Mumbai - 400010, INDIA

Sir,

Sub: Design, Manufacturing, Supply, Erection, Installation, Testing, and Commissioning of 01 no 150/20T Level Luffing (LL) Jib Crane at Alcock Yard, MDL.

Ref: MDL Tender No. 1900000228.

With reference to the above and after having read the terms & conditions in the Tender Enquiry, we wish to submit our bid for consideration of pre-qualification under **Clause 7.1.1.1/7.1.1.2/7.1.1.3** (*strike out whichever is not applicable*) of the tender. The details of similar projects as stipulated in the tender enquiry form and completed satisfactorily by us are as under:

Clause 7.1.1.1: Three numbers of ELL jib cranes of minimum load moment capacity of 2100 Ton - metre.

Sr. No	PO No & Date	Completion Cost	Work order (Submitted/Not submitted)	Completion Certificate (Submitted/Not Submitted)
1				
2				
3				

OR

Clause 7.1.1.2: Two numbers of ELL jib cranes of minimum load moment capacity of 2625 Ton - metre.

Sr. No	PO No & Date	Completion Cost	Work order (Submitted/Not submitted)	Completion Certificate (Submitted/Not Submitted)
1				
2				

OR

Clause 7.1.1.3: One numbers of ELL jib cranes of minimum load moment capacity of 4200 Ton - metre.

Sr. No	PO No & Date	Completion Cost	Work order (Submitted/Not submitted)	Completion Certificate (Submitted/Not Submitted)
1				

OR

Clause 7.1.1.4: One numbers Goliath/Gantry crane of minimum capacity of 150 Ton and at least one number of ELL Jib crane of Minimum capacity of 40 Ton of any radius.

Sr. No	PO No & Date	Completion Cost	Work order (Submitted/Not submitted)	Completion Certificate (Submitted/Not Submitted)
1				

2. The brief details of above similar projects are as under: (Use separate sheet for each work)

i.	Project Name:	
----	---------------	--



ii.	Project Location	
iii.	Client:	
iv.	Address of the Client & contact person with Tel No. & Fax No	
v.	Brief Description of the work	
vi.	Cost of project	
vii.	Contract/Work order No:	
viii.	Completion Certificate details viz, ref. No & date of issue	
ix.	Date of Commencement of Work	
x.	Date of completion work	

3. The following documents in support of the above similar projects are enclosed in our techno-commercial bid:
1. Copy of Work Order/Contract Agreement indicating contract amount, Project/Work value, Scope of Work & other details with signature of Both Parties.
 2. Work Completion Certificates issued by the Client(s) indicating proper reference of Contract Agreement & Date of Completion.
 3. Any other document (*please specify*)
4. We further agree to produce originals of the documents submitted in respect of the similar projects detailed above for verification by MDL as and when called for.

Signature of Contractor:

Name and Address:

Place:

Date:

Official Seal

**Enclosure-10 (B)**

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.

MDL Tender No. 1900000228

DECLARATION CERTIFICATE FOR LOCAL CONTENT

This declaration serves as a declaration form for the bidders. (Before completing this declaration, bidders must study the General Conditions, Definitions, Govt. Directives applicable in respect of Local Content & prescribed tender conditions). **THE BIDDER SHALL PROVIDE THIS CERTIFICATE FROM STATUTORY AUDITOR OR COST AUDITOR OF THE COMPANY (IN CASE OF COMPANIES) OR FROM A PRACTICING COST ACCOUNTANT OR PRACTICING CHARTED ACCOUNTANT (IN RESPECT OF SUPPLIER OTHER THAN COMPANIES) GIVING THE PERCENTAGE OF LOCAL CONTENT.**

IN RESPECT OF BID/ TENDER No. 1900000228
ISSUED BY: MAZAGON DOCK SHIPBUILDERS LIMITED

I, the undersigned, (full names),
do hereby declare, in my capacity as of
.....(name of bidder entity),
the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have read and understood the requirement of local content (LC) and same is specified as percentage calculated in accordance with the definition provided at clause 2 of revised Public Procurement (preference to Make in India) Order2017.

“Local content” as per above order means the amount of value added in India which shall be the total value of items procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value in percent.”

(c) I have satisfied myself that the goods/services/works to be delivered in terms of the above specified bid comply with the local content requirements as specified in the tender for ‘Class- I Local Supplier’ / ‘Class-II Local Supplier’, and as above.

(d) The local content calculated using the definition given above are as under:

Tender Item Sr No	Local content calculated as above %	Location of value addition (Location shall be specified as name of city or district etc.)

Attach separate sheet duly signed if space is not sufficient

NB: Local content percentage shall be declared item wise or tender wise strictly as per

**the terms of the tender.**

(e) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dtd 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. In case of contract being awarded, I undertake to retain the relevant documents for 7 years from date of execution.

(f) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020.

SIGNATURE of the Bidder: _____**DATE:** _____**Seal / Stamp of Bidder**

SIGNATURE: (TO BE SIGNED BY AUTHORISED SIGNATORY STRICTLY AS PER TEF CLAUSE NO. 40.4.i) & STAMPED-VIZ; STATUTORY AUDITOR OR COST AUDITOR OF THE COMPANY (IN CASE OF COMPANIES) OR FROM A PRACTICING COST ACCOUNTANT OR PRACTICING CHARTED ACCOUNTANT (IN RESPECT OF SUPPLIER OTHER THAN COMPANIES)

**Enclosure-10 (D)**

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.

MDL Tender No. 1900000228

ACTUAL LOCAL CONTENT CERTIFICATE

Note 1: This certificate shall be submitted by the successful bidder post execution of the contract.

LOCAL CONTENT DECLARATION (post execution of contract / PO). THE SUPPLIER SHALL PROVIDE THIS CERTIFICATE FROM STATUTORY AUDITOR OR COST AUDITOR OF THE COMPANY (IN CASE OF COMPANIES) OR FROM A PRACTICING COST ACCOUNTANT OR PRACTICING CHARTED ACCOUNTANT (IN RESPECT OF SUPPLIER OTHER THAN COMPANIES) GIVING THE PERCENTAGE OF LOCAL CONTENT.

**IN RESPECT OF CONTRACT No./ PO No. 1900000228.
ISSUED BY: MAZAGON DOCK SHIPBUILDERS LIMITED**

I, the undersigned, (full names), do hereby declare, in my capacity as of(name of bidder entity), that:

(a) The facts contained herein are within my own personal knowledge.

(b) My/our company has declared the local content at the time of tender as under

Tender Item No.	Sr.	Local content calculated as above %	Location of local value addition

(c) My/our company has completed the above referred contract and the actual local content of the delivered item/s calculated using the definition in the declaration given at the time of bid is as under:

Tender Item No	SrNo	Declared minimum Local content at the time of bidding (%)	Achieved Local content of delivered items (%)

NB: Local content percentage shall strictly be declared item wise or tender wise as was declared at the time of bid / tender.

(d) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dtd 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. I undertake to retain the



relevant documents for 7 years from date of execution.

(e) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020.

SIGNATURE of the Bidder: _____

DATE: _____

Seal / Stamp of Bidder

SIGNATURE:(TO BE SIGNED BY AUTHORISED SIGNATORY STRICTLY AS PER TEF CLAUSE NO. 40.5 i) & STAMPED-VIZ; STATUTORY AUDITOR OR COST AUDITOR OF THE COMPANY (IN CASE OF COMPANIES) OR FROM A PRACTICING COST ACCOUNTANT OR PRACTICING CHARTED ACCOUNTANT (IN RESPECT OF SUPPLIER OTHER THAN COMPANIES)



Enclosure-10 (E)

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

MDL Tender No. 1900000228

Declaration in respect of restriction under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authorities and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authorities. I hereby certify that this bidder fulfils all requirements in this regards and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authorities shall be attached)

SIGNATURE:_____

DATE:_____

Seal / Stamp of Bidder



Enclosure-10 (F)

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.

MDL Tender No. 1900000228

Declaration in respect of debarred under Public Procurement Policy (PPP) Make In India (MII) order 2017, GeM, CPPP including Tender holiday issued by MDL.

*I have read the **Clause No. 40** of the Tender and hereby declare that I/ we have not been debarred by any Government or quasi Government agencies or PSU's under Public Procurement Policy (PPP) Make In India (MII) order 2017, GeM and CPPP.*

Further, I hereby declare that I/ we have not been given the Tender holiday by MDL.

SIGNATURE:_____

DATE:_____

Seal / Stamp of Bidder

**Enclosure-11**

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

PARTICULARS OF BANNED OR DE-LISTED TENDERER/FIRM/VENDORS

The General Manager,
OTS Department,
6th Floor, Service Block Bldg. NY,
Mazagon Dock Shipbuilders Limited,
Dock Yard Road,
Mumbai - 400010, INDIA

Sir,

**Sub: Design, Manufacturing, Supply, Erection, Installation, Testing, and Commissioning of
01 no 150/20T Level Luffing (LL) Jib Crane at Alcock Yard, MDL.**

Ref: MDL Tender No. 1900000228.

With reference to **Clause no: 38** (Banned or De-Listed Tenderer/ Firms / Vendors), referred Tender Enquiry, we declare the Information as below.

A. In case of Banned / Blacklisted by the client.

Sl	Name of Government/ quasi Government agencies/or PSUs who has Banned/Black listed	Name of Project value which firm is Banned/ Blacklisted	Banned/ Black listed for the Duration	Reasons

B. In case of penal Action Proceeding / Show cause notices initiated/issued by the Government or quasi Government agencies or PSU's including Pending in Judicial proceedings:

Sl	Name of Client	Name of Project / Work	Status

C. The bidding firm to enclose / submit all relevant documents pertaining to Sr. no. A & Sr no. B above.

Signature of Contractor:

Name and Address:

Place:

Date:

Official Seal

**Enclosure-12**

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.

MDL Tender No. 1900000228

MAZAGON DOCK SHIPBUILDERS LIMITED
DOCKYARD ROAD
MUMBAI - 400010

1. MDL'S BANK ACCOUNT DETAILS:

NAME OF BANK A/C HOLDER	:	MAZAGON DOCK SHIPBUILDERS LTD
BANK AND BRANCH	:	STATE BANK OF INDIA, MAZAGON BRANCH, MUMBAI
BRANCH CODE	:	9054
BANK ACCOUNT NO	:	10005255246
IFSC CODE		SBIN0009054
MICR/NECS CODE		400002120
INCOME TAX PAN NO		AAACM8029J
INCOME TAX TAN NO		MUMM02076E

2. DETAILS OF REMITTANCE TO MDL'S BANK ACCOUNT:

(To be filled in by the vendors/firms making remittance of funds in MDL'S Bank Account)

Date of Remittance	Name of Firm	UTR No.	MDL tender/PO. Ref No.	Nature of Remittance viz. Performance Bank Guarantee etc.	Amount Remitted (₹)
			MDL Tender No. 1900000228		

Signature of Bidder

3. SAP Parked document No: _____ Date: _____
(To be filled in by MDL's Commercial Executive)

**Enclosure-13**

To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.

MDL Tender No. 1900000228

INTEGRITY PACT

MAZAGON DOCK SHIPBUILDERS LIMITED (MDL) hereinafter referred to as "**The Principal/Buyer**"

And
.....hereinafter referred to as "**The Bidder/ Contractor**"

Preamble

The Principal/Buyer intends to award, under laid down organizational procedures, contract/s forThe Principal/Buyer values full compliance with all relevant laws of the and, rules, regulations, economic use of resources and of fairness / transparency in its relations with its Bidder(s) and /or Contractor(s).

In order to achieve these goals, the Principal/Buyer shall appoint an Independent External Monitor (IEM), who shall monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal/Buyer:

- (1) The Principal/Buyer commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - a) No employee of the Principal/Buyer, personally or through family members, shall in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - b) The Principal/Buyer shall during the tender process treat all Bidder(s) with equity and reason. The Principal/Buyer shall in particular, before and during the tender process, provide to all Bidder(s) the same information and shall not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c) The Principal/Buyer shall exclude from the process all known prejudiced persons.
 - d) The Principal/Buyer undertakes to scrupulously follow the Purchase Manual containing General Conditions of Contract (GCC) in respect of procurement contracts for goods, services and civil works.
- (2) If the Principal/Buyer obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti Corruption Laws of India, or it there be a substantive suspicion in this regard, the Principal/Buyer shall inform the Chief Vigilance Officer, MDL and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/Contractor(s):



- (1) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- a) The Bidder(s)/Contractor(s) shall not, directly or through any other persons or firm, offer promise or give to any of the Principal/Buyer's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage or any kind whatsoever during the tender process or during the execution of the contract.
 - b) The Bidder(s)/Contractor(s) shall not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal.
This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c) The Bidder(s)/Contractor(s) shall not commit any offence under the relevant Anti-Corruption Laws of India; further the Bidder(s)/Contractor(s) shall not use improperly, for purposes of competition or personal gain, or pass on to other, any information or document provided by the Principal/Buyer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. All payments made to the Indian Agent/representative have to be in Indian Rupees only. Further details as mentioned in the "Guidelines of Indian Agents of Foreign suppliers" shall be disclosed by the Bidders(s)/Contractor(s). Copy of the "Guidelines on Indian Agents of Foreign Suppliers" as annexed and marked as Annexure-A.
 - e) The Bidder(s)/Contractor(s) shall when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
 - f) The Bidder (s)/Contractor(s), their agents, representatives shall not do such things so as to interfere with the procedures laid down in the Principal/Buyer's Purchase Manual containing the General Conditions of Contract (GCC) in respect of procurement contracts for goods, services and civil works.
- (2) The Bidder(s)/Contractor(s) shall not instigate third persons to commit offences outlines above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future contracts:

If the Bidder(s)/Contractor(s) before contract award has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility as Bidder(s) in question, the Principal/Buyer is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or to terminate the contract, if already signed for such reason, as per the procedure mentioned in the "Guidelines on Banning of business dealings" Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annexure-B.

- 1) If the Bidder(s)/Contractor(s) has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal/Buyer is entitled also to exclude the Bidder(s)/Contractor(s) from future contract award processes. The



imposition and duration of the exclusion shall be determined by the severity of the transgression. The severity shall be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder(s) and the amount of the damage. The exclusion shall be imposed for a minimum of six months and maximum of five years, which may be further extended at the discretion of the Principal/Buyer.

- 2) A transgression is considered to have occurred, if the Principal/Buyer after due consideration of the available evidence, concludes that no reasonable doubt is possible.
- 3) The Bidder (s) accepts and undertakes to respect and uphold the Principal/Buyer's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining legal advice.
- 4) If the Bidder(s)/Contractor(s) can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Buyer may revoke the exclusion prematurely.

Section 4 – Sanctions for Violation:

- (1) Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act 1988 or any other Act enacted for the prevention of corruption shall entitle the Principal/Buyer to take all or any one of the following actions, wherever required –
 - a) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder (s) would continue.
 - b) The Earnest Money Deposit/Security Deposit/Performance Bond shall stand forfeited either fully or partially, as decided by the Principal/Buyer, and the Principal/Buyer shall not be required to assign any reason therefor.
 - c) To immediately cancel the contract, if already signed, without giving any compensation to the Bidder.
 - d) To recover all sums already paid by the Principal/Buyer, in case of an Indian Bidder
 - e) with interest thereon at 2% higher than the prevailing Base Rate of SBI, and in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the Buyer in connection with any other contract for any other Defence stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
 - f) To encash the advance Bank Guarantee and Performance Bond/Warranty bond, if furnished by the Bidder, in order to recover the payments, already made by the Principal/Buyer, along with interest.
 - g) To cancel all or any other contracts with the Bidder.



- h) To debar the Bidder from entering into any bid from Principal/Buyer for a minimum period of five years, which may be further extended at the discretion of the Principal/Buyer.
- i) To recover all sums paid in violation of this Pact by Bidder(s) to any middleman or agent or broker with a view to securing the contract.
- j) If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is closely related to any of the officers of the Buyer, or alternatively, if any close relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender. Any failure to disclose the interest involved shall entitle the Buyer to rescind the contract without payment of any compensation to the Bidder.

The term 'close relative' for this purpose would mean spouse whether residing with the Principal/Buyer's employee/employees or not, but not include a spouse separated from the Principal/Buyer's employee/employees by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Principal/Buyer's employee/employees, but does not include a child or step child who is no longer in any way dependent upon the Principal/Buyer's employee/employees or of whose custody the Principal/Buyer's employee/employees has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Principal/Buyer's employee/employees or to the Principal/Buyer's employee/employees wife or husband and wholly dependent upon Principal/Buyer's employee/employees.

- k) The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Principal/Buyer, and if he does so, the Principal/Buyer shall be entitled forthwith to rescind the contract and all other contracts with the Bidder. The Bidder shall be liable to pay compensation for any loss or damage to the Principal/Buyer resulting from such rescission and the Principal/Buyer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.
 - l) In cases where Irrevocable Letters of Credit have been received in respect of any contract signed by the Principal/Buyer with the Bidder, the same shall not be opened.
- (2) The decision of the Principal/Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and binding on the Bidder, however, the same Bidder can approach the Monitor(s) appointed for the purposes of this Pact.

Section 5 - Previous Transgression:

- (1) The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti-corruption approach or with any other public section enterprise in India that could justify his exclusion from the tender process.
- (2) If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process or further action can be taken.

Section 6 - Equal treatment of all Bidders/Contractor(s)/Subcontractors:



- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal/Buyer shall enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
- (3) The Principal/Buyer shall disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violation Bidder(s)/Contractor(s)/ Subcontractor(s):

- (1) If the Principal/Buyer obtains knowledge of conduct of a Bidder, Contractor or subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or subcontractor which constitutes corruption or if the Principal has substantive suspicion in this regard, the Principal/Buyer shall inform the same to the Chief Vigilance Officer, MDL.

Section 8 - Independent External Monitor/Monitors:

- (1) The Principal/Buyer appoints competent and credible independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairman & Managing Director of the Principal/Buyer.
- (3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal/Buyer including that provided by the Contractor. The Contractor shall also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The
- (4) same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.
- (5) The Principal/Buyer shall provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations, between the Principal/Buyer and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (6) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he shall so inform the Management of the Principal/Buyer and request the Management to discontinue or take corrective action, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Monitor shall give an opportunity to the Bidder(s)/Contractor(s) to present its case before making its recommendation to the Principal/Buyer.
- (7) The Monitor shall submit a written report to the Chairman & Managing Director of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the Principal/Buyer and, should the occasion arise, submit proposals for correcting problematic situations.
- (8) Monitor shall be entitled to compensation on the same terms as being extended to / provided to Independent Directors on the Board of Principal/Buyer.



- (9) If the Monitor has reported to the Chairman & Managing Director of the Principal, a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India and the Chairman & Managing Director of the Principal/Principal/Buyer has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- (10) The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration:

This pact begins when both parties have legally signed it. It expires for the Contractor **12 months** after the last payment under the contract and for all other Bidders **06** months after the contract has been awarded.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above unless it is discharged / determined by Chairman & Managing Director of the Principal/Buyer.

Section 10 - Other provisions:

- (1) This agreement is subject to Indian Law, place of performance and jurisdiction is the
- (2) Registered Office of the Principal/Buyer, i.e. Mumbai. The Arbitration clauses provided in the main tender document/ contract shall not be applicable for any issue/dispute arising under this Integrity pact.
- (3) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties shall strive to come to an agreement to their original intentions.

For & on behalf of
MAZAGON DOCK SHIPBUILDERS
LIMITED
(Office Seal)
Place_____

Date_____

Witness 1:

(Name & Address)

For & on behalf of Bidder/Contractor
(Office Seal)

Witness 1:

(Name & Address)

**Annexure-A****GUIDELINES FOR INDIAN AGENTS OF FOREIGN SUPPLIERS**

- 1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with MDL shall apply for registration.
- 1.1 An agent shall represent only one Foreign Supplier and not represent two suppliers or quote on their behalf in the same tender.

However, either the Indian Agent on behalf of the Foreign Suppliers (also includes foreign manufacturers) or the Foreign Suppliers (also includes foreign manufacturers) directly could bid in a tender, but not both. In cases where an agent participates in a tender on behalf of one manufacturer, shall not quote on behalf of another manufacturer along with the first Manufacturer in a subsequent/parallel tender for the same item.

- 1.2 Registered agents shall file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/remuneration/salary/ retainer ship being paid by the principal to the agent before the placement of order by MDL.
- 1.3 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.

2.0 DISCLOSURE OF PARTICULARS OF AGENTS/ REPRESENTATIVES IN INDIA, IF ANY.

2.1 Tenderers of Foreign nationality shall furnish the following details in their offer:

- 2.2.1 The name and address of the agents/representatives in India, if any and the extent of authorization and authority given to commit the Principals. In case the agent/representative be a foreign Company, it shall be confirmed whether it is real substantial Company and details of the same shall be furnished.
- 2.2.2 The amount of commission/remuneration included in the quoted price(s) for such agents/representatives in India.
- 2.2.3 Confirmation of the Tenderer that the commission/ remuneration if any, payable to his agents/ representatives in India, may be paid by MDL in Indian Rupees only.

2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:

- 2.2.1 The name and address of the foreign principals indicating their nationality as well as their status, i.e, whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/representatives.
- 2.2.2 The amount of commission/remuneration included in the price (s) quoted by the Tenderer for himself.



- 2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/remuneration, if any, reserved for the Tenderer in the quoted price (s), may be paid by MDL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items.
- 2.3 In either case, in the event of contract materializing, the terms of payment shall provide for payment of the commission /remuneration, if any payable to the agents/representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
- 2.4 Failure to furnish correct and detailed information as called for in paragraph-2.0 above shall render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by MDL. Besides this there would be a penalty of banning business dealings with MDL or damage or payment of a named sum.

**Annexure-B****GUIDELINES ON BANNING OF BUSINESS DEALINGS****CONTENTS**

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1. Introduction

- 1.1 Mazagon Dock Shipbuilders Limited (MDL), being a Public Sector Enterprise and 'State', within the meaning of Article 12 of Constitution of India, has to ensure preservation of rights enshrined in Chapter III of the Constitution. MDL as also to safeguard its commercial interests. MDL deals with Agencies, who have a very high degree of integrity, commitments and sincerity towards the work undertaken. It is not in the interest of MDL to deal with Agencies who commit deception, fraud or other misconduct in the execution of contracts awarded / orders issued to them. In order to ensure compliance with the constitutional mandate, it is incumbent on MDL to observe principles of natural justice before banning the business dealings with any Agency.
- 1.2 Since banning of business dealings involves civil consequences for an Agency concerned, it is incumbent that adequate opportunity of hearing is provided and the explanation, if tendered, is considered before passing any order in this regard keeping in view the facts and circumstances of the case.

2. Scope

- 2.1 MDL reserves its rights to remove from list of approved suppliers / contractors or to ban business dealings if any Agency has been found to have committed misconduct and also to suspend business dealings pending investigation.
- 2.2 Similarly, in case of sale of material there is a clause to deal with the Agencies / customers / buyers, who indulge in lifting of material in unauthorized manner.
- 2.3 However, absence of such a clause does not in any way restrict the right of MDL to take action / decision under these guidelines in appropriate cases.
- 2.4 The procedure of (i) Removal of Agency from the List of approved suppliers / contractors; (ii) Suspension and (iii) Banning of Business Dealing with Agencies, has been laid down in these guidelines.
- 2.5 These guidelines apply to all the Divisions/Yards of MDL.
- 2.6 It is clarified that these guidelines do not deal with the decision of the Management not to entertain any particular Agency due to its poor / inadequate performance or for any other reason.
- 2.7 The banning shall be with prospective effect, i.e., future business dealings.

3. Definitions

In these Guidelines, unless the context otherwise requires:

- a) 'Bidder / Contractor / Supplier / Purchaser / Customer' shall mean and include a public limited company or a private limited company, a firm whether registered or not, an individual, a cooperative society or an association or a group of persons engaged in any commerce, trade, industry, etc. 'Bidder / Contractor / Supplier / Purchaser / Customer' in the context of these guidelines is indicated as 'Agency'.
- b) 'Inter-connected Agency' shall mean two or more companies having any of the following features:
- a) If one is a subsidiary of the other.
 - b) If the Director(s), Partner(s), Manager(s) or Representative(s) are common;
 - c) If management is common;
 - d) If one owns or controls, the other in any manner;
- c) 'Competent Authority' and 'Appellate Authority' shall mean the following:
- a) Functional Director shall be the 'Competent Authority' for the purpose of these guidelines. CMD, MDL shall be the 'Appellate Authority'.



- b) CMD, MDL shall have overall power to take suo-moto action on any information available or received by him and pass such order(s) as he may think appropriate, including modifying the order(s) passed by any authority under these guidelines.
- d) 'Investigating Department' shall mean any Department or Unit investigating into the conduct of the Agency and shall include the Vigilance Department, Central Bureau of Investigation, the State Police or any other department set up by the Central or State Government having powers to investigate.
- e) 'List of approved Agencies – 'Bidder / Contractors / Suppliers / Purchasers / Customers shall mean and include list of approved / registered Agencies - 'Bidder / Contractors / Suppliers / Purchasers / Customers, etc.

4. Initiation of Banning / Suspension

Action for banning / suspension business dealings with any Agency should be initiated by the department having business dealings with them after noticing the irregularities or misconduct on their part. Besides the concerned department, Vigilance Department may also be competent to initiate such action.

5. Suspension of Business Dealings

- 5.1 If the conduct of any Agency dealing with MDL is under investigation by any department, the Competent Authority may consider whether the allegations under investigation are of a serious nature and whether pending investigation, it would be advisable to continue business dealing with the Agency. If the Competent Authority, after consideration of the matter including the recommendation of the Investigating Department, if any, decides that it would not be in the interest to continue business dealings pending investigation, it may suspend business dealings with the Agency. The order to this effect may indicate a brief of the charges under investigation. If it is decided that inter-connected Agencies would also come within the ambit of the order of suspension, the same should be specifically stated in the order. The order of suspension would operate for a period not more than six months and may be communicated to the Agency as also to the Investigating Department. The Investigating Department may ensure that their investigation is completed and whole process of final order is over within such period.
- 5.2 The order of suspension shall be communicated to all Commercial Departmental Heads. During the period of suspension, no business dealing may be held with the Agency.
- 5.3 As far as possible, the existing contract(s) with the Agency may continue unless the Competent Authority, having regard to the circumstances of the case, decides otherwise.
- 5.4 If the gravity of the misconduct under investigation is very serious and it would not be in the interest of MDL, as a whole, to deal with such an Agency pending investigation, the Competent Authority may order suspension of business dealing with Agency and send his recommendation to Chief Vigilance Officer (CVO), MDL along with the material available, copy of which may be issued to the Agency concerned with intimation to CVO MDL. Such an order would operate for a period of six months from the date of issue.
- 5.5 If the Agency concerned asks for detailed reasons of suspension, the Agency may be informed that its conduct is under investigation. It is not necessary to enter into correspondence or argument with the Agency at this stage.
- 5.6 It is not necessary to give any show-cause notice or personal hearing to the Agency before issuing the order of suspension. However, if investigations are not complete in six month's time,



the Competent Authority may extend the period of suspension by another three months, during which period the investigations must be completed.

6. Ground on which Banning of Business Dealings can be initiated

- 6.1 If the security consideration, including questions of loyalty of the Agency to the State, so warrants;
- 6.2 If the Director / Owner of the Agency, proprietor or partner of the firm, is convicted by a Court of Law for offences involving moral turpitude in relation to its business dealings with the Government or any other public sector enterprises or MDL, during the last five years;
- 6.3 If there is strong justification for believing that the Directors, Proprietors, Partners, owner of the Agency have been guilty of malpractices such as bribery, corruption, fraud, substitution of tenders, interpolations, etc.;
- 6.4 If the Agency continuously refuses to return / refund the dues of MDL without showing adequate reason and this is not due to any reasonable dispute which would attract proceedings in arbitration or Court of Law;
- 6.5 If the Agency employs a public servant dismissed / removed or employs a person convicted for an offence involving corruption or abetment of such offence;
- 6.6 If business dealings with the Agency have been banned/blacklisted by Government Agencies/ Statutory bodies, DGQA, Defence Shipyards, DPSUs or with whom commercial transactions have been suspended for sufficient and justifiable reasons.
If the Agency having same promoters/Directors /Partners as the barred/blacklisted Company as at 6.6 above for the duration for which the barring/ blacklisting of sister concern persists.
- 6.7 If the Agency has resorted to Corrupt, fraudulent practices including misrepresentation of facts;

If the agency who had fraudulently dealt with the Company for pecuniary gains or had connived with dealing officers for mutual benefit.
- 6.8 If the Agency uses intimidation / threatening or brings undue outside pressure on the MDL or its official in acceptance / performances of the job under the contract;
- 6.9 If the Agency indulges in repeated and / or deliberate use of delay tactics in complying with contractual stipulations;
- 6.10 Wilful indulgence by the Agency in supplying sub-standard material irrespective of whether pre-despatch inspection was carried out by MDL or not;
- 6.11 Based on the findings of the investigation report of CBI / Police against the Agency for malafide / unlawful acts or improper conduct on his part in matters relating to the MDL or even otherwise;
- 6.12 Established litigant nature of the Agency to derive undue benefit;
- 6.13 Continued poor performance of the Agency in several contracts;



- 6.14 If the Agency misuses the premises or facilities of the MDL, forcefully occupies, tampers or damages the Company's properties including land, water resources, forests / trees, etc.

If the Agency who knowingly collude to defeat competition with the aim of deriving undeserved profit or gain from doing business with MDL.

(Note: The examples given above are only illustrative and not exhaustive. The Competent Authority may decide to ban business dealing for any good and sufficient reason).

7. Banning of Business Dealings

- 7.1 Decision to ban business dealings with any Agency would apply throughout the Company.
- 7.2 There shall be a Standing Committee to be appointed by the CMD which may include HOD of respective Commercial Section/Capital Works/OTS, HOD (M), rep of Legal Deptt. and OIC (SR&R) for processing the cases of "Banning of Business Dealings". The functions of the committee shall, inter-alia include:
- a) To study the report of the Investigating Agency and decide if a prima-facie case for banning exists, if not, send back the case to the Competent Authority.
 - b) To recommend for issue of show-cause notice to the Agency by the concerned department.
 - c) To examine the reply to show-cause notice and call the Agency for personal hearing, if required.
 - d) To submit final recommendation to the Competent Authority for banning or otherwise.
- 7.3 If the Competent Authority is prima-facie of view that action for banning business dealings with the Agency is called for, a show-cause notice may be issued to the Agency as per paragraph 9.1 and an enquiry held accordingly.

8. Removal from List of Approved Agencies - Suppliers / Contractors, etc.

- 8.1 If the Competent Authority decides that the charge against the Agency is of a minor nature, it may issue a show-cause notice as to why the name of the Agency should not be removed from the list of approved Agencies - Suppliers / Contractors, etc.
- 8.2 The effect of such an order would be that the Agency would not be disqualified from competing in Open Tender Enquiries but LTE may not be given to the Agency concerned.
- 8.3 Past performance of the Agency may be taken into account while processing for approval of the Competent Authority for awarding the contract.

9. Procedure for issuing Show-cause Notice

- 9.1 In case where the Competent Authority decides that action against an Agency is called for, a show-cause notice has to be issued to the Agency. Statement containing the imputation of misconduct or mis-behaviour may be appended to the show-cause notice and the Agency should be asked to submit within 15 days a written statement in its defence.
- 9.2 If the Agency requests for inspection of any relevant document in possession of MDL, necessary facility for inspection of documents may be provided.
- 9.3 The Competent Authority may consider and pass an appropriate speaking order:
- a) For exonerating the Agency if the charges are not established;



- b) For removing the Agency from the list of approved Suppliers / Contactors, etc.
- c) For banning the business dealing with the Agency.

9.4 If it decides to ban business dealings, the period for which the ban would be operative may be mentioned. The order may also mention that the ban would extend to the interconnected Agencies of the Agency.

10. Appeal against the Decision of the Competent Authority

- 10.1 The Agency may file an appeal against the order of the Competent Authority banning business dealing, etc. The appeal shall lie to Appellate Authority. Such an appeal shall be preferred within one month from the date of receipt of the order banning business dealing, etc.
- 10.2 Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the Agency as well as the Competent Authority.

11. Review of the Decision by the Competent Authority

Any petition / application filed by the Agency concerning the review of the banning order passed originally by Competent Authority under the existing guidelines either before or after filing of appeal before the Appellate Authority or after disposal of appeal by the Appellate Authority, the review petition can be decided by the Appellate Authority upon disclosure of new facts / circumstances or subsequent development necessitating such review. The Competent Authority may refer the same petition to the separate Standing Committee which may be constituted by Appellate Authority for examination and recommendation.

12. Circulation of the names of Agencies with whom Business Dealings have been banned

- 12.1 Depending upon the gravity of misconduct established, the Competent Authority may direct HOD (Materials)/OIC (SR&R) to circulate the names of Agency with whom business dealings have been banned, to the Government Departments, other Public Sector Enterprises, etc. for such action as they deem appropriate.
- 12.2 If Government Departments or a Public Sector Enterprise request for more information about the Agency with whom business dealings have been banned, a copy of the report of Inquiring Authority together with a copy of the order of the Competent Authority / Appellate Authority may be supplied.
- 12.3 If business dealings with any Agency have been banned by the Central or State Government or any other Public Sector Enterprise, MDL may, without any further enquiry or investigation, issue an order banning business dealing with the Agency and its inter-connected Agencies.

**Enclosure-14**

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

MDL Tender No. 1900000228

RTGS/NEFT/ECS – MANDATE AUTHORISATION FORM

1.	NAME OF THE FIRM	:	
2.	CONTACT PERSON AND DESIGNATION	:	
3.	PAN NO	:	
4.	VENDOR ADDRESS	:	
5.	VENDOR'S TELEPHONE/FAX	:	
6.	E-MAIL ADDRESS	:	
7.	BANK NAME	:	
8.	BANK ADDRESS	:	
9.	ACCOUNT NUMBER	:	
10.	ACCOUNT TYPE	:	
11.	IFSC CODE	:	
12.	MICR CODE	:	
13.	GST ID NO.	:	

We hereby declare that the particulars given above are correct and complete. If the transaction is delayed for reasons of incomplete or incorrect information, we would not hold MDL responsible.

Date

Vendor's Seal

Authorised Signature of the Vendor

Certified that the particulars as per Serial No. 1 & 6 to 12 are correct as per our records.

Date

Bank's Stamp

Authorised Signature of the Bank Officer

**Enclosure-15**

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

MDL Tender No. 1900000228

PROFORMA BANK GUARANTEE FOR BID BOND / EMD

(On Non-Judicial stamp paper of value ₹100/-)

IN CONSIDERATION OF MAZAGON DOCK SHIPBUILDERS LIMITED, a company incorporated under the Companies Act 1956 and having its registered office at Dockyard Road, Mumbai 400010 (hereinafter referred to as the "the Company" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) having agreed to accept the Earnest Money Deposit (EMD) of Rs----- (Rupees-----only) in the form of Bank Guarantee from Messers a partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at(hereinafter called " the tenderer" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) for participating in the Tender no.....dated..... (hereinafter called "the tender" which expression shall include any amendments/alterations to "the tender" issued by "the Company") for the supply, delivery at site, installation and commissioning of certain equipment, item/services/civil works etc., We, Bank having office at (hereinafter referred to as "the Bank" which expression shall include its successors and assigns) hereby agree to pay to the Company without any demur on first demand an amount not exceeding Rs..... (Rupees.....only) against any loss or damage, costs, charges and expenses caused to or suffered by the Company by reason of nonperformance and non-fulfilment or for any breach on the part of the tenderer of any of the terms and conditions of the said tender.

2. We, Bank further agree that the Company shall be sole judge whether the said tenderer has failed to perform or fulfil the said tender in terms thereof or committed breach of any terms and conditions of the tender the extent of loss, damage, cost, charges and expenses suffered or incurred or would be suffered or incurred by the Company on account thereof and we waive in the favour of the Company all the rights and defences to which we as guarantors may be entitled to.

3. We, Bank further agree that the amount demanded by the Company as such shall be final and binding on the Bank as to the Bank 's liability to pay and the amount demanded and the Bank undertake to pay the Company the amount so demanded on first demand and without any demur notwithstanding any dispute raised by the tenderer or any suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator relating thereto, our liability under this guarantee being absolute and unconditional.

4. We, Bank further agree with the Company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said tender/or to extend time of performance by the tenderer from time to time or to postpone for any time to time any of the powers exercisable by the Company against the tenderer and to forbear to enforce any of the terms and conditions relating to the tender and we shall not be relieved from our liability by reason of any such variation or extension being granted to the tenderer or for any forbearance, act or omission on the part of the Company or



any indulgence by the Company to the tenderer or by any such matter or things whatsoever which under the law relating to sureties would have the effect of relieving us.

5. We, Bank further undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing.

6. We, Bank also agree that the Bank's liability under this guarantee shall not be affected by any change in the constitution of the tenderer or dissolution or winding up of the business of the tenderer.

7. Notwithstanding anything contained herein above:

- i) Our liability under this guarantee shall not exceed Rs.....
- ii) This Bank Guarantee shall be valid upto and including; and
- iii) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before(validity + --- weeks from the date of expiry of this guarantee).

8. This Guarantee shall be governed by Indian laws and the Courts at Mumbai, India shall have the exclusive jurisdiction.

IN WITNESS WHEREOF the Bank has executed this document on this..... day of

For Bank
(by its constituted attorney
or the person authorised to sign)

(Signature of a person authorised
to sign on behalf of "the Bank")

**Enclosure-16**

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

MDL Tender No. 1900000228

PROFORMA FOR PERFORMANCE BANK GUARANTEE

(On Non-Judicial stamp paper of value ₹100/-)

IN CONSIDERATION OF MAZAGON DOCK SHIPBUILDERS LIMITED (formerly known as MAZAGON DOCK LIMITED, a company incorporated under the Companies Act 1956 and having its registered office at Dockyard Road, Mumbai 400010 (hereinafter referred to as the "the Company" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) having placed an order on Messers a partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at(hereinafter called " the Contractor" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) vide order No..... dated..... (hereinafter called "the order" which expression shall include any amendments/alterations to "the order" issued by "the Company") for the work of as stated in the said Order and the Company having agreed that the Contractor shall furnish a security for the performance of the Contractor obligations and/or discharge of the Contractor liability in connection with the said order and the Company having agreed with the Contractor to accept a performance guarantee, We, Bank having office at (hereinafter referred to as "the Bank" which expression shall include its successors and assigns) hereby agree to pay to the Company without any demur on first demand an amount not exceeding Rs..... (Rupees.....only) against any loss or damage, costs, charges and expenses caused to or suffered by the Company by reason of non-performance and non-fulfilment or for any breach on the part of the Contractor of any of the terms and conditions of the said order.

2. We, Bank further agree that the Company shall be sole judge whether the said Contractor has failed to perform or fulfill the said order in terms thereof or committed breach of any terms and conditions of the order and the extent of loss, damage, cost, charges and expenses suffered or incurred or would be suffered or incurred by the Company on account thereof and we waive in the favour of the Company all the rights and defences to which we as guarantors may be entitled to.

3. We, Bank further agree that the amount demanded by the Company as such shall be final and binding on the Bank as to the Bank's liability to pay and the amount demanded and the Bank undertake to pay the Company the amount so demanded on first demand and without any demur notwithstanding any dispute raised by the Contractor or any suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator relating thereto, our liability under this guarantee being absolute and unconditional.

4. We, Bank further agree with the Company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said order/or to extend time of performance by the Contractor from time to time or to postpone for any time to time any of the powers exercisable by the Company against the Contractor and to forbear to enforce any of the terms and conditions relating to the order and we shall not be relieved from our liability by reason of any such variation or extension being granted to the Contractor or for any forbearance, act or omission on the part of the Company or



any indulgence by the Company to the Contractor or by any such matter or things whatsoever which under the law relating to sureties would have the effect of relieving us.

5. We, Bank further undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing.

6. We, Bank also agree that the Bank's liability under this guarantee shall not be affected by any change in the constitution of the Contractor.

7. Notwithstanding anything contained herein above:

- i) Our liability under this guarantee shall not exceed Rs.....
- ii) This Bank Guarantee shall be valid upto and including; and
- iii) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before(validity + ---weeks from the date of expiry of this guarantee).

8. This Guarantee shall be governed by Indian laws and the Courts at Mumbai, India shall have the exclusive jurisdiction.

IN WITNESS WHEREOF the Bank has executed this document on this..... day of

For Bank
(by its constituted attorney)

(Signature of a person authorised
to sign on behalf of "the Bank")

**Enclosure-19**

Sl no.	Item Description	Qty	Unit	Rate (Rs) (Quoted / Not quoted)	GST (%)	HSN/ SAC	Total Amount with GST (Rs)
1	Design, Manufacturing, Supply, fabrication, Transportation, Installation, Erection, Testing and Commissioning of Level Luffing Jib Crane (LL Crane) including Third Party inspection & supply of critical spares as indicated – As per technical specification and scope. Capacity 150 Ton/20Ton	1	AU				



Enclosure-21

ANNEXTURE-I



MAZAGON DOCK SHIPBUILDERS LIMITED
(Formerly known as Mazagon Dock Ltd.)
CIN : U35100MH1934GOI002079
(A Government of India Undertaking)
Dockyard Road, Mazagon,
Mumbai 400 010.
INDIA

**Design, Supply, Installation, Testing & Commissioning of
Electrical Level Luffing (ELL) Crane 01 NO 150/20T for
MAZAGON DOCK SHIPBUILDERS LIMITED**



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**BUYER'S REQUIREMENTS****PART A: PARTICULAR SITE CONDITIONS AND REQUIREMENTS****1. SITE LOCATION:**

The Mazagon Dock Shipbuilders Limited is located at Dockyard Road, Mazagon, Mumbai-400010.

The supplier has to visit the site and to take their own measurements/assessment as stated in succeeding paragraphs.

2. CLIMATIC DATA:

The details provided below are from our available data bank for reference only. Bidders are requested to verify the same before its use:

a) Air temperature: mean min. 16 °C, mean max. 36 °C, extreme max 40 °C
b) Rainfall: average annual rainfall 2080 mm, average 71 days with 2.5 mm or more. Highest averages June (520 mm), July (709 mm), August (419 mm), lowest averages December, January, February, March and April all less than 10 mm. Abnormal rain of 934mm in one day in July 2005.
c) Relative humidity: range 62 to 86 %
d) Barometric pressure: at mean sea level, monthly means range from 1004 to 1013 mb.
e) Wind: General direction of wind is from the North to the West quarter, with seasonal variations as shown below: -

Seasonal Wind Variations

Months	Directions	Speeds
Feb-May	Mainly from N.W.	(Max. 8 to 10 Beaufort. Substantial 4-6 Beaufort)
June-Sep.	Mainly from W.N.W.	(Max. 8 to 10 Beaufort. Substantial 6-8 Beaufort)
Oct-Jan	Mainly from W.N.W.	(Max. 6 to 8 Beaufort. Substantial 2-6 Beaufort)

f) **Cyclones:** These may occur in the period of May/June or October/November.

Occasionally, sudden, high winds also occur during the fine weather period from N.E.

3. SITE DATUM AND TIDAL DATA:

- 3.1 The datum for all works shall be zero Mumbai chart datum. Bench marks have already been established within the working area by the MDL and shall be verified by the Supplier before commencing the works.
- 3.2 All the levels shown on the drawings or referred to in the Specifications are related to the Chart Datum, unless mentioned otherwise.
- 3.3 Tidal data for the site is as follows: -

Highest Recorded Tide
Highest Astronomical Tide

HRT
HAT

+5.40m CD
+5.04m CD



Mean High Water Spring Tides	MHWS	+4.42m CD
Mean High Water Neap Tides	MHWN	+3.30m CD
Mean Sea Level	MSL	+2.51m CD
Mean Low Water Neap Tides	MLWN	+1.86m CD
Mean Low Water Spring Tides	MLWS	+0.76m CD
Lowest Astronomical Tide	LAT	-0.46m CD
Mumbai Chart Datum and Site Datum	CD	+/-0.00m CD

4. CURRENTS AND WAVES:

- 4.1 The currents at the site of the proposed Works are essentially caused by the tides, and are not influenced to any extent by monsoons. The strength of both the ebb and flood currents are similar (1.5 to 2 knots, equivalent to 0.75 to 1.10 m/sec) and the directions are generally North to South / South to North respectively.
- 4.2 The predominant waves entering the site of the proposed Works are the swell waves generated by deep sea storms. These mainly arise just before and during the South West monsoon. The wave height at the site of Works is not expected to exceed 1.5 m. The statistical analysis also indicates that most wave periods fall between 6 seconds and 10 seconds.
- 4.3 During the continuance of the North-east monsoon, north-easterly winds known as "Elephantas" blow for short duration during the months of October-November. As the fetch and duration of these winds are limited, the "Significant height" of the resulting waves is not likely to exceed 1 meter with period ranging from 3 to 5 seconds.

5. ACCESS TO THE SITE:

5.1 The Supplier shall at all times make use of the site entrance as instructed by the MDL for access to the site. Movement of Vehicles and persons will be restricted to the Supplier's working area only. Except for making deliveries, Supplier's vehicles shall be parked outside the yard.

5.2 The Supplier shall make necessary arrangements to obtain required passes for vehicles and persons entering the shipyard site for the purposes of carrying out the Works from the MDL.

5.3 The extent of the site will vary as the work progresses to suit the construction of the Works. In general, the site comprises a number of discrete areas within and outside Mazagon Dock Shipbuilders Ltd. The Supplier shall gain access to the various site areas through shipyard operational areas. The MDL shall in general provide clear access for the Supplier to the various site areas; however, the Supplier shall expect at times to have restrictions in access due to shipyard operations.

6. INSTRUCTIONS FOR SUPPLIERS WORKING IN MAZAGON DOCK SHIPBUILDERS LTD:

6.1 All Suppliers working within Mazagon Dock Shipbuilders Ltd. shall comply with the following rules and instructions:

- (i) While employing workers in Mazagon Dock Shipbuilders Ltd., the Supplier shall bear in mind that it is a vital Defense Installation.
- (ii) The Supplier shall be responsible to produce a Police Verification Report regarding checking of antecedents and verification of character of his employees.
- (iii) The Supplier shall declare in the Security Office all tools, equipment or any other items brought by him for work in Mazagon Dock Shipbuilders Ltd. In case of electric cables, its measurement (size & length) is to be written properly. The paper containing the list of items declared in the Security Office shall be retained by the Supplier properly. For items of stores / material resembling that of Mazagon Dock Shipbuilders Ltd.,



	precaution shall be taken to mark their clear identification of colour code and / or serial number and / or clear marking on each item of stores / material including tools.
(iv)	All the items / material required to be taken out of Mazagon Dock Shipbuilders Ltd. after completion of work is to be removed only during working hours. This shall be supported by the original paper / document at the time bringing the material / items inside Mazagon Dock Shipbuilders Ltd.
(v)	At the time of entry / exit, the Supplier's employees shall display their entry passes issued to them. As far as possible, temporary workers passes shall be collected and kept by the Supervisor of the Supplier at the time of his workers going out after completion of work in the Yard. On the next day, these passes shall be reissued to the workmen who are required for work inside Mazagon Dock Shipbuilders Ltd. In respect of those workmen who are not required to report on the following day or who are discharged, their passes shall be deposited in the Security Department's Pass Issue Cell.
(vi)	If the Supplier's employee is required to work in Mazagon Dock Shipbuilders Ltd. for a period of 89 days or more, he shall produce 3 copies of photographs of each of his employees and other detailed information as may be required, which will be informed to him by the Staff of Pass Issue Cell of the Security Department.
(vii)	If the period of work in Mazagon Dock Shipbuilders Ltd. is less than 89 days, then the Supplier has to furnish the following information in a register as per the labour challan issued by the Personnel Department:
	Sl.
	Address

	No.
	Name
	Age
	Distinguishing mark on the body, if any.....
	Designation
	Local Address
	Permanent Address

(viii)	The Supplier shall take adequate care while completing the labour challan (ESIS formalities from Personnel Department). The names of his employees who are required to work in the Yard are to be written in the labour challan. The labour challan must be signed by the Proprietor / Manager / Site executive of his concern. ESIS formalities in respect of his / his sub-Suppliers workers have to be completed every month without fail.
(ix)	Cost of Security Passes / Identity Cards will be recovered from the Supplier at the existing rate per Security Pass / Identity Card. For re-issue of Security Pass / Identity Card, in case of loss of the same, the Supplier will be charged extra as per prevailing rates. The amount shall be deposited to the Cash Department of Mazagon Dock Shipbuilders Ltd.
(x)	The Supplier must ensure that all the Security Rules of Mazagon Dock Shipbuilders Ltd. are observed by his employees.
(xi)	The Supplier shall give strict instructions to his or his Sub-Supplier's employees not to step on board ships under construction / repairs.
(xii)	The Supplier shall ensure that his / Sub-Supplier's employees remain at the place of work assigned to them and do not loiter around any other ship or working area. If any such infringement is observed, the employee is liable to be barred from further entry to Mazagon Dock Shipbuilders Ltd.
(xiii)	In case the Supplier finds any difficulty in compliance of above Security instructions, he may call on the Chief Security Officer for the necessary guidance.

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**7. SUPPLIER'S PLANT, EQUIPMENT, LABOUR, PERSONNEL, FUEL AND CONSUMABLES:**

7.1 The Supplier shall provide and mobilize all necessary plant, equipment and labour for the erection works. He shall provide all necessary maintenance facilities for the plant and equipment, which shall not be de-mobilized and removed from site before the completion of the Works without the written permission of the MDL executive.

7.2 The Supplier shall ensure that all work is undertaken by trained and competent personnel under the supervision of responsible persons, experienced in the particular aspect of the works being undertaken.

7.3 The Supplier shall arrange for required supervisory staff on Site as and when required. He shall submit on award of the Contract for the approval of the MDL executive in the form of a bar chart showing numbers of supervisory staff needed at various stages of construction.

7.4 The Supplier shall provide and pay for all fuel, lubricants, gas and other consumable stores required for his plant, equipment and transport and for the execution of the Works.

8. SANITARY PROVISIONS:

8.1 The Supplier shall provide onsite and remove when directed by the MDL executive, adequate sanitary accommodation, including, if necessary, septic tank(s) to the approval of the Statutory Authorities for the use of persons employed on the Works and provide proper attendance to the satisfaction of the MDL executive.

8.2 The Supplier shall, at all times, during the continuance of the Contract adopt such precautions as may be necessary to prevent soil or water pollution on the Site (including any area occupied by temporary accommodation) and shall compel his and his Sub-Suppliers' employees and labour to use the facilities provided which shall be carefully maintained by the Supplier throughout the currency of the Contract to the satisfaction of the MDL executive.

9. SAFETY, HEALTH & WELFARE PROTECTION, LIFE-SAVING:

9.1 The Supplier shall comply with the regulations of the Statutory Authorities in respect of safety, health and welfare requirements. All facilities provided shall also be subjected to the approval of the MDL executive in respect of siting, type, quality, maintenance and cleanliness.

9.2 The Supplier shall adhere to safe construction practices and guard against hazardous and unsafe working conditions and shall comply with MDL's Safety Rules.

9.3 The Supplier shall give prompt and due consideration to any matters to which the MDL executive may find it necessary to call attention, for the purpose of ensuring compliance with the foregoing requirements.

9.4 The Supplier shall provide handrails, scaffolding, and take such other safety precautions as are consistent with normal good safety practice.

9.5 Site operatives shall be fully conversant with the use of safety equipment and drills shall be carried out frequently to ensure that all necessary procedures can be correctly observed.

9.6 The Supplier shall provide all necessary personal protective equipment (PPE) to his workforce and that of his sub-Suppliers. This shall include, but shall not be limited to; safety boots, hard hats, gloves, lifejackets, eye protection, ear defenders, high visibility vests, harnesses.

9.7 All safety rules to be observed while working on live electrical system or installation as stipulated in The Indian Electricity Rules and other relevant rules.

9.8 The Supplier shall in all dealings with labour in his employment have due regard to all recognized festivals, days of rest and religious or other customs and observe days of rest as applicable to the outdoor staff of the MDL.

9.9 The Supplier shall not, otherwise than in accordance with the Statutes, Ordinances and



Government Regulations or Orders for the time being in force, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his personnel or Sub-Suppliers.

9.10 The Supplier shall recognize the freedom of his work people to be members of trade unions.

9.11 All personnel employed by the Supplier and any of his sub-Suppliers' shall carry an identity card, which shall be clearly visible at all times on the Site.

9.12 The Contractor shall fully comply with the General HSE guidelines promulgated by MDL.

9.13 All precautions and permits not limited to the following shall be complied with in connection with the erection, testing and commissioning of the crane.

- i. Hot work permit
- ii. Permit for work at height
- iii. Permit for Scaffolding
- iv. Electrical shut down permit

9.14 The Contractor shall provide handrails, scaffolding, and take such other safety precautions as are consistent with normal good safety practice. Warning signs shall be displayed at relevant locations in English and Hindi.

9.15 Crane supplier shall submit the detailed erection procedure before commencing the erection activities at site. The procedure shall include details regarding the sequence of erection, capacity of crane used for erection activities, etc.

10. FIRE-FIGHTING EQUIPMENT AND STORAGE OF DANGEROUS MATERIALS:

10.1 Suitable fire-fighting equipment shall be provided and maintained on the Site to deal with any outbreaks of fire on the site of the Works.

10.2 All possible precautions shall be taken to provide for the safe storage of petroleum, gas bottles, or other dangerous materials. Permits shall be obtained for the storage of such materials wherever this is required by the regulations of the relevant authorities, and the Supplier will be deemed to have included for all costs arising from such regulations within his tender prices and for providing the level of security required for storage and for arranging for the safe delivery to site of such materials.

10.3 The Supplier shall observe and abide by all fire and safety regulations of the MDL before starting and during execution of construction work. The Supplier shall consult with MDL's Safety executives and must make good to the satisfaction of the MDL any loss or damage to any portion of the work done or to be done under this Contract or to any of the MDL's existing property.

11. ADVANCE NOTIFICATION OF ALL OPERATIONS:

- a. In addition to his general obligations under the Contract, full and complete notice shall be given by the Supplier of all operations to be carried out on the site. Such notice shall be provided in sufficient time for the MDL/TPEA to make all necessary arrangements for inspection and checking. Such inspection and checking shall not relieve in any way the obligations of the Crane Supplier under the Contract.
- b. Where the MDL executive is required by the specification to give approval to the supply of materials, plant or methods to be used in any part of the Works, this notice shall be sufficient to allow time to carry out inspections, checks or tests prior to giving such approval.

12. REGULATIONS OF STATUTORY AUTHORITIES AND CUSTOMS:

- a. Without limiting his obligations under the general conditions of the Contract, the Supplier shall be responsible for meeting obligations of all statutory authorities.



including but not limited to, local representatives, The Indian Electricity Rules and Act, Fire Insurance Regulations, Brihan Mumbai Electricity Supply and Transport Undertaking (B.E.S.T.) and the Central Electricity Authority (CEA) and Mumbai Port Trust (herein referred as MbPT).

- b. Should any of the statutory authorities request an inspection of the installation, equipment or the final works, the Supplier shall co-ordinate with the MDL executive in carrying out such inspection. Any modification suggested by the authorities shall be carried out by the Supplier, on the advice of the MDL executive at no additional cost.
- c. The Supplier shall comply with all regulations imposed by the Customs authorities in respect of the passage of all imported Supplier's equipment, plant, materials and vehicles and personnel through Customs barriers inclusive of relevant fees.

13. WORKS NOT TO INTERFERE WITH MDL'S NORMAL BUSINESS:

- a. The Supplier shall not interfere in any respect with the normal business of the MDL and shall co-operate with him/them if and when special measures become necessary as a direct consequence on the progress of the Works.
- b. The Supplier, shall co-operate, by temporarily removing any of his Equipment, floating craft, obstructions, etc. which may cause hindrance to the launching of a newly built ship till the process of launching has been completed, as per direction of the MDL executive at no additional cost.

14. SITE CLEARANCE, MAKE GOOD ETC. ON COMPLETION:

14.1 The MDL will provide phase wise space to the supplier during assembly/erection of crane and subsequent project work.

14.2 The Supplier shall on completion of the Works at his own expense restore, reinstate or make good the surfaces of all ground disturbed by his operations; remove any rubbish, surplus materials etc., and leave the Site clean and tidy to the satisfaction of the MDL executive.

**PART B: TECHNICAL REQUIREMENTS**

Technical requirements for the Electrical Level Luffing crane required by the Employer are broadly given below. The Contractor is requested to submit detail specifications of the crane offered in line with technical requirements, which should include the type, make, capacity, rating, material specifications etc. of major components. The Crane and its accessories shall be inspected either by MDL/ authorized representative/ Third Party Inspection Agency (TPEA) during various stages/steps to confirm whether structural strength capacities, load test, dimensions, accuracy, operating requirement, working of safety devices such as limit switches and functioning of control system assigned with positive logics, brakes etc. meet with the approved specifications, drawings and crane design code as applicable. MDL reserve the right to inspect and or to depute any external inspection agency to inspect at supplier's works and also at his sub-contractors works. Necessary facilities shall be provided by the supplier for the above. Moreover, the supplier shall extend all sort of support to explain and demonstrate the functions in a reasonable level. Travelling, boarding and lodging costs of MDL officials would be borne by MDL. It is the responsibility of the contractor to inform one month in advance before shipment in order to carry the witnessing and factory acceptance test by the employer. All required facilities, test equipment's/units shall be arranged by crane supplier at their cost. The design, manufacture, inspection and testing at works at all stages as required, supply, erection, testing and commissioning shall be covered under inspection by a TPEA, viz. IRCLASS Systems & Solutions Pvt Ltd /LRS/BV/ABS/TUV/DNV. MDL reserves the right and power to choose and finalize the TPEA and the supplier have no rights to question or disobey the same. Cost for TPEA for the third party inspection shall be borne by the crane supplier. The supplier has to comply with various requirements of TPEA meeting QAP.0 inspection, testing of crane sub-assemblies as per Standards

Lk yt

15. SCOPE OF SUPPLY:

Technical requirements of the Electrical Level Luffing crane (viz. 150/20T.) required by the MDL are broadly given below. The bidder is requested to submit detailed specifications of the crane offered, which should include the type, class, make, capacity, rating, material specifications of major components

15.1. The scope of supply shall include:

- a) The design, manufacture, delivery, unloading and move to erection site, on-site assembly and erection, installation, testing, commissioning and setting to work of a, 150/20T Electrical Level Luffing crane and all necessary peripherals, inclusive of all necessary temporary works required.

The equipment shall be complete with all necessary parts, auxiliary items and safety devices whether specified herein or not which should form part of crane for operating the crane for intended purpose.

- b) The Electrical installations shall be carried out as per Indian Electricity Rules and Regulations or IEC.
- c) The provision and mounting of the cable reeling drum and associated power supply cable together with the cable turn over device, cable anchor device and crane isolation switch/connection box within a cable turnover pit
- d) The specifications and size of supply cable, cable reeling drum to be given by crane supplier to suit the size of pit. Isolation Switch / Connection box should have locking arrangement all complete.
- e) Supply of spares listed in Scope of work considered necessary to support the 150/20 Ton ELL crane for the next 6 years of operation after 36 months of guaranty/warranty.



- f) The Crane Management Software (CMS) must be compactable with the related PLC's and HMI's. In addition, a stand-alone touch screen Laptop will be handed over to user.
- g) Necessary accessories to support the software operation shall be supplied.
- h) The provision of comprehensive operating, maintenance and spare parts manuals for the crane. All such manuals to be in English (soft and hard copy).
- i) The provision of all necessary operating and maintenance training (level 1& 2) at site for MDL's nominated personnel.
- j) A Guarantee/Warranty against damage or failure due to breakdowns/ defects for a period of 36 months from the date of final acceptance of the crane at MDL site.
- k) Buffer stops and end stops, storm anchors including sockets, all embedment which are to be casted in concrete etc. shall be intimated in advance by crane supplier.

15.2. The crane shall be handed over to MDL after erection, satisfactory trials, testing and commissioning at MDL site. The entire responsibility regarding handling of material, manpower, compliances of statutory and safety regulations, rules or act for the above actions rest with the supplier of the crane. Supplier of crane may take notice that MDL is no way responsible for any actions, failures, non-compliances of statutory and safety rules/ regulations/ act as applicable in India and especially inside MDL during the transportation of materials inside yard or during erection process of crane or during trials/ tests/ statutory tests or evaluations or any regulations or rules as stipulated by Government of India time to time during the period of contract and supplier of the crane solely be responsible for all such actions and has to be dealt with at their risk and cost .

Safety of items delivered against damages, theft, etc. and its preservation till commissioning are covered under the scope of the supplier.

16. CRANE LOCATION, SITE CONDITIONS AND LIMITATIONS:

- a. The crane is to be delivered to, installed and operated within the Mazagon Dock Shipbuilders Ltd., Mumbai, India. Companies/Firms wishing to tender for the supply of the crane shall visit the shipyard to fully familiarize themselves with the intended location, the prevailing site conditions and any possible constraints in advance of submitting their offer.
- b. It should be noted that access to the Site would be subject to limitations and restrictions. In addition, the availability of working areas will be reduced due to other Suppliers working in the vicinity of the dockyard area generally. Companies wishing to tender are to ensure that they are fully conversant with any limitations and restrictions on access and the work being undertaken by other Suppliers.
- c. The MDL draws to the attention of the Supplier that there is no space available on site to carry out fabrication works.
- d. The Supplier should fabricate the components of the crane at the Supplier's workshop and transport these components to the MDL site and assemble these components at site.
- e. Transportation of the fabricated crane components from the Supplier's workshop to MDL site is a critical activity, and may require transportation to the erection site by barge. Components that are large will be transported to site by barge and the assembly will take place at site.
- f. It is required that the Supplier should study the requirement by visiting the site, carry out the detailed site constraints, finalize the transport method for the 150/20T



Electrical Level Luffing crane. It is therefore required that the Supplier should finalize and submit the transportation method in the technical bid and is also required to give a technical presentation of the Transportation Methodology at the time of Technical Negotiation.

- g. The Erections of Electric Level Luffing Crane is a difficult and complex activity, in view of the physical constraints at the site. It is therefore required that the Supplier indicates in the Technical Bid, probable experienced agencies which may perform this activity. The Supplier should study the requirement by visiting the site, carry out detailed site constraints, finalize the Erection Methodology for erecting the Crane. The Supplier should confirm the feasibility of erecting the Electrical Level Luffing Crane within the present constraints and submit the Erection Methodology along with a ELL necessary inputs and information, to demonstrate the same. It is required to give a technical presentation of the Erection Methodology at the time of Technical Negotiation. Also all the Temporary works (including the associated civil works) for Erecting Crane are part of Suppliers Scope of Works and are to be quoted without any exceptions.
- h. Compressed air, Electricity and water will be provided at free of cost by the MDL during erection, installation and Commissioning of the Crane.

i. SPECIAL NOTE:

- i) **If bidder is bringing crane components by sea, then taking permission of MbPT, arranging tugs and boats is in the scope of bidder.**
Bidder shall use hired mobile cranes of suitable capacity for day to day activities.
- ii) **Schedules for shifting of crane components via sea shall be prepared in consultation with MDL executives.**
- iii) **For load testing of crane during commissioning weighing load will be provided by MDL. Slings, shackles will be under Bidder's scope. Arranging competent authority for witnessing and manpower for the same is in the scope of bidder.**

17. APPOINTMENT OF THIRD PARTY EXPERT AGENCY (TPEA):

- i. The crane supplier shall appoint a Third Party Expert Agency (TPEA) to carry out following activities and hiring charges will be borne by supplier only.
- To familiarize themselves with the site condition and users need.
 - To review & approve the GA drawings and its suitability for the crane site.
 - To review & approve the design calculation & Crane specifications and to suggest improvement, amendment/alteration, if so required. They should also verify the adequacy of the ELL crane design submitted by the supplier.
 - To verify and to approve various drawings submitted by the crane suppliers within a period not exceeding 02 weeks' time during the currency of the project.
 - To carry out stage inspection on site/supplier works either accompanied with MDL executive or solo as per MDL directions as and when felt appropriate.
 - To act as an expert technical guide for the project concerned and to provide required information / solution to the technical issues if so arises during the currency of the project.
 - To devise a checking / inspection mechanism to ensure that crane is manufactured following sound engineering practices and the crane are fitted / provided with standard instruments / machines / components etc.



- h. To prepare an independent monthly progress report with input from crane supplier and MDL.
 - i. MDL (User Dept) and TPEA shall carry out necessary inspection of the items on receipt in the MDL on the basis of appropriate MDL Inspection system requirements & the Inspection documents submitted by suppliers. Any objection raised by MDL/TPEA inspection team against quality of material or workmanship shall be satisfactorily corrected by the supplier at his expenses including replacement as may be required within shortest possible time within 30 days. Items damaged during transit shall also be rectified or replaced by the supplier within shortest possible time.
 - j. To safeguard the users, need / purpose of investment in the larger interest of MDL.
 - k. Inspection / test during erection & final test at MDL site.
- ii. The crane supplier shall appoint any of these expert agencies such as: IR CLASS Systems & Solutions Pvt Ltd(ISSPL)/Apave TIV India Pvt Ltd/Bureau Veritas India Private Limited/LRQA Inspection Services India LLP/TUV/DNV. The crane supplier shall furnish documents pertaining to credentials & past experience of the agency to MDL prior to the appointment of a particular TPEA. Hiring Charges for TPEA is to be borne by firm/supplier of ELL Crane.
- iii. The TPEA once appointed shall not be changed till the completion of the project.

18. DRAWING APPROVAL PROCEDURE:

18.1 The crane supplier shall submit all design drawings, specifications, literature, erection, testing, commissioning and setting to work program to the TPEA (third party expert agency) for approval purposes with a copy to MDL for reference. The TPEA shall respond within two weeks of receipt of such information advising each items approved or those being returned for amendment. The approval procedure for amended items will be the same as for the original submission. However, comments / approval of the drawings by the TPEA will not relieve the supplier of his responsibilities for the correctness, adequacy of design and completeness of his work as per the contract.

18.2 The Supplier shall submit any calculations required to substantiate aspects of the design. With respect to items of proprietary supply the manufacturers own selection chart or certificate of approval may be submitted as appropriate.

18.3 The Supplier shall maintain a complete record of all the changes made to the crane design or construction and supply to the MDL in three A1 sets of "as built" prints together with two sets drawings, each on a CD-R disc in a PC compatible AutoCAD/MS Windows format at the time of delivery.

18.4 The Supplier shall be responsible for preparing all necessary electrical drawings as requested by CEA or any other authority through a licensed electrical Supplier and submit the same to the MDL executive for obtaining approval from CEA or any other authority.

19. MINIMUM DRAWINGS AND DOCUMENTS REQUIREMENT:

19.1 The drawings and documentation supplied for 150/20T Electrical Level Luffing crane shall, as a minimum, include the following:

- a) General arrangement drawings
- b) i) Machinery assembly drawings with itemized parts lists and component ratings as appropriate.
- ii) The complete technical details of bought out items/components fitted into the crane along with brochures/manuals etc.



- c) Structural arrangement drawings with materials and quantities.
The drawings should also indicate Paintable surface area in sq.mtr for the complete structure.
- d) Layout drawings of machinery control room(s)
- e) Control cabin layout and arrangement showing operators seat, windows, limiting sight lines, location of operating controls and all other significant features.
- f) Schematic diagrams of rope reeving systems for all rope motions.
- g) Structural erection drawings
- h) Wiring layout diagram indicating the location of each item of equipment, any junction boxes and the routing of each conduit, trunk and cable tray
- i) Supplier shall submit in 3 sets of Quality Assurance Plan and Inspection and Test Plan for works at manufacturer's shop and at worksite to TPEA and a copy to MDL.
- j) The criteria and supporting calculations used in selecting the individual gearboxes.
- k) Supplier shall submit in 3 sets of Method statements with risk assessment details for installation of ELL crane for following important works (but not limited to) to TPEA for approval and a copy to MDL.
 - 1. Assembly and Erection of 01 nos ELL crane with associated equipment's.
 - 2. Installation of Cabling System with trays and jointing accessories.
 - 3. Installation of HT & LT Cabling System with trays and jointing accessories.
 - 4. Installation of LT Panels with associated switch gears.
 - 5. Installation of Power Factor Improvement System.
 - 6. Earthing System. (Chemical earthing pit with copper strips to be provided)
 - 7. Lightning arrestor system to be provided.
- l) The crane supplier shall submit in 3 sets of Technical submittals for installation of ELL crane for following important items (but not limited to) to TPEA for approval with a copy to MDL. Technical submittal shall contain documents as applicable but not limited to Index of documents, compliance statement, General Arrangement drawings and diagrams, Power and Control wiring diagrams, guaranteed technical parameters of main equipments, Type test certificates for main equipments, Technical Brochures, Bill of Materials specifying technical particulars, rating, quantity, function and make of each component of the equipment.
 - 1. HT & LT Cables, trays and jointing accessories.
 - 2. LT switchgear Panels.
 - 3. Power Factor Improvement System.
 - 4. Earthing system.
 - 5. PLC software documentation in electronic form.
 - 6. Lightning arrestor system.

19.2 In addition, the Supplier will supply full documentation for the installed electrical power and control systems for the ELL crane as below:



- a) List of all equipment and devices complete with ratings as appropriate.
- b) Line diagrams of power distribution system.
- c) Architectural drawing indicating control distribution, PLC distribution, VVFD distribution.
- d) Simple schematic diagrams depicting each control circuit.
- e) PLC software documentation
- f) Power supply termination details and termination box.
- g) Block diagram showing all conduits, trunking and cable trays with their associated sizes together with all cable sizes identifying insulation and conductor types.
- h) Wiring layout diagram indicating the location of each item of equipment, any junction boxes and the routing of each conduit, trunk and cable tray.
- i) Connection diagrams for all electrical equipment showing all terminal strips in their correct orientation with each wire and conduit identified.
- j) Connection details of the power supply cable within the turn over pit to the yard power supply.
- k) General arrangements of lighting and lightning protection and earthing system.

Calculation in support of selection of the following items:

- (i) Switch gears.
- (ii) Size of the power cable.
- (iii) Number of cores of control cables and sizes.

All the above details shall be given in both hardcopy and soft copy.

20. HEALTH AND SAFETY:

20.1 Permanent safe access must be provided for all operating and routine maintenance functions on the Crane. Safe access means stairways, ladders, platforms, guard rails and all doors, hatches and other openings having safe means of securing in both the open and shut positions all to a standard appropriate to best Indian / European practice.

20.2 Stairways, ladders, platforms shall be made from steel and tread areas are to be provided with a non-slip finish or be constructed from galvanized expanded metal sections of approved design. All guard rails and toe boards shall similarly be of galvanized steel construction. The angle of rake of the stairways shall be such that a man can descend the flight while facing away from the staircase.

20.3 The maximum permitted noise levels that may be generated by crane operation, at ground level, on walkways outside enclosed machinery spaces and within the cab with open windows is 75dB(A). Within the cab with windows closed the maximum noise level shall not exceed 60dB(A).

Note: These values should be in line with Indian H&S legislation requirement.

20.4 The crane structure and each individual hook shall be prominently marked with their respective safe working load.

20.5 The Supplier must fully comply with all relevant Indian Health & Safety legislation in force at the date of tender submission.

20.6 All required warning signs shall be displayed in English and Hindi as far as possible.

21. DESIGN, CONSTRUCTION AND TESTING STANDARDS:

21.1 The International System of measurement units (SI) shall apply throughout. The design, manufacture and testing of all elements of the crane structure and machinery, together with all equipment and components of sub contract and/or external supply shall comply with the appropriate recommendations or requirements of recognized



international standards and codes such as:

- a) Federation European de la Manutention (FEM)
- b) British Standards Institute (BSI)
- c) International Electro Technical Commission (IEC)
- d) Deutsches Institut fur Normung e.v. (DIN)
- e) Indian Standards Institution (IS)

However, following below listed standards is mandatory:

- a) FEM 1.001 3edition or BSEN 14985
- b) IEC 60204-32- electrical equipment of machines.
- c) EN 13586 or ISO 11660-1 crane access.

21.2 The Supplier will be responsible for ensuring compliance with any other relevant standard or code as appropriate and may propose other or alternative equivalent internationally recognized standards provided they are published in English and prove acceptable to the MDL. All Standards shall be the latest version of the relevant Standard.

21.3 A complete schedule of standards and codes that it is intended to employ shall be submitted with the bid (in Part 1 – Techno-commercial Bid) for consideration and approval by the MDL. Changes to approved standards following acceptance of the bid will not be permitted.

21.4 An English language copy of all such approved standards to be employed shall be provided to the MDL after contract signing and before commencement of the design and procurement activities.

22. OPERATOR TRAINING AND MAINTENANCE STAFF TRAINING:

- 22.1 Full training at the site in the safe operation and maintenance of the crane and all equipment shall be provided to the MDL's nominated personnel by a suitably qualified person, or persons, employed by the Supplier and approved by the MDL. If interpreters are required to assist the exchange of information and instructions from the trainer to the operators, these are to be provided by the Supplier at his own cost.
- 22.2 The necessary training programs will be developed jointly with the MDL to ensure that the specific operational requirements of the yard and workforce are adequately addressed.
- 22.3 Training at site will commence during the site assembly stage for the maintenance personnel and continue through testing and commissioning and into the setting to work phase for the crane operators.
- 22.4 Maintenance training shall include, inter alia:
 - routine examination and maintenance
 - fault diagnosis
 - removal, dismantling and replacement of parts and components.
 - basic electrical checks, safety routines and component replacement.
 - approach to hydraulic systems overhaul
 - maintenance planning records and procedures.
 - Bypassing of PLC elements safely.
 - Procedures /instructions for corrections or modifications in PLC /VVFD.
 - Details regarding the logical integration implemented.
 - Swapping of components on emergency.
 - Uploading and downloading procedures in relevant concepts.
 - Rectification on fibre optic cables-procedures.



- Uploading and downloading of programs to PLC and HMI
- Instruction and familiarization regarding the overall operation and maintenance of the crane including Health and safety provisions incorporated (including the operation of items such as load weighing and limit switches etc.).

22.5 Operational training shall include, inter alia:

- a) Safety procedures & SOP
- b) Practice at the control and synchronization of the main crane motions, long travel, luff, slew and both hoists.
- c) Start up and shut down procedures including use of the storm anchors and any supplementary securing equipment.
- d) application of the daily check list.
- e) Instruction and familiarization regarding the overall operation and maintenance of the crane including Health & Safety provisions incorporated (including the operation of items such as load weighing and limit switches).

23. OPERATIONAL AND MAINTENANCE MANUALS:

23.1 Separate illustrated manuals shall be provided by the Supplier covering the operation, maintenance and parts identification for the crane and associated equipment and components for ELL crane. Proprietary equipment manufacturer's manuals may be provided where they comply with the requirements of this specification. Where possible the manuals shall be presented in A4 format and be protected from damage by employing durable covers and plastic encapsulated pages.

23.2 The operator's manuals shall contain advice and instructions on all aspects of the safe operation and use of the crane including actions to be taken in the event of emergency or breakdown. A start up and hand over check list for the operator shall also be included.

23.3 Manuals of PLC, HMI, VVFDs, encoders etc. shall be given along with relevant instructions or programs. Detailed interconnection diagrams shall be provided. Manuals of each unit shall be provided. Necessary permissions/licenses shall be given to MDL for using Application software in HMI and Crane management System. Drawing "as fitted and commissioned" shall be provided and is a compulsory requirement as per this tender. Fault diagnosis procedures shall be provided.

23.4 The maintenance manual shall include illustrated instructions on what tasks need to be undertaken on a regular basis and how to perform all routine and scheduled tasks. Additionally, a separate document, or set of documents, with exploded isometrics where possible identifying all components and their associated spare part numbers for all items and components of the crane, both for the Suppliers own manufacture and of all sub Suppliers shall be provided.

23.5 Copies of all manuals and illustrations shall also be provided on CD-R discs compatible with a PC system running Microsoft Windows.

23.5 In total 4 (four) sets of paper based and 2 (two) sets CD-R disc based copies of all manuals shall be provided. The covers of each paper copy of the operating manuals and the boxes for the CD-R discs of the operating manual shall carry the following clear title as the case may be:

"OPERATING INSTRUCTIONS FOR 150/20T ELECTRICAL LEVEL LUFFING CRANE"

23.6 The comparable sets of manuals and CD-R discs for the maintenance instructions shall be marked using the same format.

23.7 All such manuals shall be in English.

**24. PACKING MATERIALS:**

24.1 All the packing material (which shall include hay, straw, wood shavings, wood chips, sawdust, wood waste, wooden pallets, dunnage mats, wooden packages, coir pith, peat or sphagnum moss made of plant origin used for packing shall require treatment including Heat-kiln treatment at 56 degree centigrade for a minimum of 30 hours or Methyl Bromide fumigation at 48 g/cum for 32 hours or chemical impregnation of wood with wood preservatives such as copper arsenic or any other approved treatment as per international standards.

24.2 All the shipments coming into India shall be packed in packaging material confirming to the above standard and shall carry a Phytosanitary certificate issued by an authorized officer at the Country of Origin of the consignment in the format prescribed under International Plant Protection Convention of the Food & Agriculture Organization.

25. ENVIRONMENTAL AND CLIMATIC CONSIDERATIONS

25.1 All elements and components of supply for the crane shall be suited to performing to reliably and to specification within the environmental and climatic conditions that prevail in the yard as summarized below.

- a) Climate - marine / tropical
- b) Annual temperature range - typically 15°C to 45°C. Temperatures in direct sunlight may be considerably higher and consideration shall be given to this possibility in the location and specification of any potentially affected elements or components.
- c) Relative humidity - Ranging between 50% and 95%.
- d) Wind Speeds: The crane shall be designed for a maximum in service wind speed of 20m/sec. The crane and storm anchors shall be able to withstand the maximum out of service wind speed for Mumbai calculated in accordance with IS 875 (Part 3) 2015. The assessment shall adopt the following site specific (ref IS 875 Part 3 Clause 5.3) parameters
 - $V_b = 44\text{m/s}$
 - $K_1 = 1$
 - Terrain category = category 2
 - $K_3 = 1.0$
 - $K_4 = 1$
- e) Earthquake Provision: The crane shall be able to resist the lateral acceleration forces generated by earthquakes of the severity and frequency defined for Mumbai in IS 1893 - 1984 (Fourth Revision).

26. CRANE RAILS

The cranes will be duplex rail mounted, of the portal level luffing slewing type with a single boom jib and equipped with main and auxiliary hoists. The specified minimum required performances are as below:

- a) The rails will be duplex ISCR 100 type to suit Centre-flanged wheels.
- b) Rail tolerance will be as per ISO 12488-1
- c) Maximum permissible Crane wheel load on Crane Beam is 70Tons/M and Max Permissible UDL on Crane Beam is 147 Tons/M.



**27. MATERIALS AND WORKMANSHIP:**

27.1 All major items of equipment and major materials used in the manufacture of the crane shall have been specified and procured specifically for this contract. No pre used or substandard materials or equipment shall be employed.

27.2 The country of origin and manufacture for all major materials, equipment and systems shall be identified by the Supplier for approval by the MDL.

27.3 In the event, fabrication of the crane structure is being outsourced by the crane supplier, the same should be undertaken under guidance and supervision of the Supplier. However, the Supplier shall be fully responsible for the work done by the fabricator. The Supplier shall provide all required details of the intended fabricator meeting the qualification requirements to the MDL.

27.4 The Supplier shall provide details of the Quality Assurance system operated that must cover all aspects of in house design and manufacture as well as covering the monitoring of quality from external suppliers of sub-assemblies and components. The QA plan shall be approved by the TPEA and a copy to be provided to MDL.

28. CRANE DETAILS:

28.1 The crane will be rail mounted, of the Electric level luffing slewing type with a single boom jib and equipped with main and auxiliary hoists. The specified minimum required performances are as below:

(I)

Sr. No	Drive	Crane 150/20 T
a	Main Hoist	Minimum: 150 Tonnes at 15 meter radius Maximum: 150 Tonnes at 35 meter radius
b	Auxiliary Hoist	Minimum: 20 Tonnes at 17.5-meter radius Maximum: 20 Tonnes at 40 meter radius
c	Minimum /Maximum Radius	Minimum 15 meter / Maximum 35 meter: Main hook Minimum 17.5 meter / Maximum 40 meter : Auxiliary hook
d	Crane rail center distance	15 meter.
e	Height of lift for both main and auxiliary hoist at all radius	Above rails – 35 to 37 Meters Below rails: 5 Meter (all hooks)
f	Traveling Distance	124.5 Meters (Approx.)
g	Maximum permissible Crane wheel load on Crane Beam	60Tons/Wheel and Max Permissible UDL on Crane Beam is 147 Tons/M.

**Operating speeds**

Sl. No.	150/20 ELL crane (1 No)			
a)	All motions shall offer variable speed with 6 steps or step less control from zero through to the load-limited maximum. A creep speed function is to be provided for all the drives providing only 5% of the maximum rated speed whilst delivering 100% of the rated torque.			
b)	Hoists	No-load	Main	0 - 15mtr/min
		No Load	Auxiliary	0 - 40 mtr/min
		Full Load	Main	0 ~ 7.5 mtr/min
			Auxiliary	0 - 20 mtr/min.
c)	Luffing	Full Load		0~10 mtr / min
d)	Slewing	Full Load/No Load		0.25/0.5 RPM , Slewing angle = 360 degree.
e)	The crane control system shall be such as to coordinate the slewing speed with the luffing motion to ensure that excessive load traverse speeds cannot be attained.			
f)	Long Travel		0 ~ 30 mtr / min	
g)	Any other requirement	1. Air conditioning (Timer based) for VFD drives, operator cabin, electrical cabin to be installed. 2. Firm must visit the site to assess the site constraints prior to offer. 3. Anemometer for wind speed interconnected with crane operation for safety purpose. 4. Load indicator and load cell 5. HMI Display 6. Crane management system for trouble shooting. 7. LT machinery shall be with brake operation indication and without open gearing 8. Emergency / back up brake on drum flange for hoisting and luffing machinery 9. All the necessary site measurement is to be taken by the firm on their own. 10. Limit switch & E- Stop for all the motions. 11. Hooter/siren. 12. Anti-Collision device 13. PA system, telephone, 4 no's walkie-talkies 14. Strom anchor system. 15. Centralized lubrication system if any. 16. Peripheral lighting system (LED). 17. Electric hoist for maintenance purpose. 18. Boom rest stand of suitable capacity shall be provided to carry out replacement of the wire rope. 19. Suitable arrangement shall be made to minimize collection of dust and water on the crane. 20. Rail sweeps, extending on both sides of the rail, should be provided at four corners at the outer ends.		



	21. Manual Slew lock for Slewing motion and Long Travel (LT) 22.Weight lifting equipment/hoist for lifting heavy weight in machinery cabin/wire rope drum cabin.
i)	If the contractor's standard operating speeds are different from but are generally comparable to the above-specified values, the standard speeds should be offered for consideration by the MDL with such departures highlighted within the tender documents.

29. POWER SUPPLY

29.1 Power will be provided to the cable anchor pit for connection to the crane trailing cable as below:

Supply: - 3 Phase

Frequency: - 50 Hz

Voltage: 11KV

Voltage: 415V +/- 10 %

Source Capacity: 230KVA

Total electrical power requirement of the crane to be given by the Supplier

29.2 The crane shall be equipped with a reversing motorized mono spiral cable reel. The crane reeling drum flexible cable shall be connected to the fixed power supply via a turn over anchor located approximately mid-way along the crane track. The crane shall be provided with transformer(s) to convert the supply voltage into the operating and distribution voltage(s) required. Transformers and their specification shall be suitable for the high humidity prevalent at the Site. All necessary safety precautions to be provided to protect the cable against any damage in the reeling drum.

29.3 The crane shall be equipped with rail earthing brushes sized to accommodate both welding return currents and lightning strikes. The brushes are to be mounted on the crane structure. The Supplier shall provide full details of the system

29.4 The flexible copper supply cable shall be provided with an earth conductor. Adequate protection to be provided on the entire crane structure against any accidental electric shock to the personnel and materials.

29.5 All electronic and electrical equipment shall be adequately protected from the effects of multiple transient voltages. The crane electrical systems shall be provided with an agreed level of radio frequency immunity and all installed electrical equipment and machinery shall be suppressed against radio frequency generation.

29.6 The crane drive system shall also be equipped to handle the reverse energy generated in the crane to feedback on to the electrical network and also ensure that the harmonics are not transferred into the source.

30. 150/20T ELECTRICAL LEVEL LUFFING CRANE:

- 1 Power supply to ELL crane will be provided from existing HT Panel of 11kV, 3 Phase, 50 Hz. The provision of 11KV power supply at a point shall be made available by MDL. Beyond this point all the associate electrical jobs shall be in the scope of crane supplier. X

All electronic and electrical equipment shall be adequately protected from the lightning strikes. The Supplier shall provide full details of the protection system(s) to be installed. V



3. Provision of Chemical earthing pits with required accessories (Ex. Copper earthing strips) as per requirement will be in supplier's scope
4. 75 mm dia UPVC pipes shall be provided by the supplier. The Supplier shall provide 32 x 5 mm Copper earth strips for interconnecting both the Rail tracks with earthing station.
5. Reactive power compensation for improvement of Power factor up to 0.99 shall be within the scope of the Supplier.

31. PREFERRED MAKES OF ELECTRICAL ITEMS:

In general, following table provides the preferred make for the listed electrical items to which the supplier has to adhered to invariably. In case, the indicated make for an electrical item is not available for any of the item, the deviation shall need to be approved by MDL.

Sr. No.	Description	Makes
1	H.T Cable	Havells/Gloster/Paramount/NICCO/ Polycab / KEI / RPG
1.1	L.T. Cable	Torrent/ NICCO / Universal / Uniflex / Polycab/KEI
2	Cable jointing Kit	Raychem / Ikebana/3M
3	M.C.C.B	Legrand / Siemens / G.E. / MerlinGerin / ABB / L&T / Crompton / Schnider.
4	Regenerative VVFD drives	ABB/ Siemens / Schnider/Konecranes
5	E.L.C.B./E.L.M.C.B.	Legrand / Siemens / Merlin Gerin / G.E./ Crompton/ABB / Schneider
6	M.C.B. & distribution board (10KA)	Legrand / Siemens / Merlin Gerin / G.E./ Crompton/ ABB / Schneider
7	Panel meters (Ammeter, voltmeter, frequency meter)	Automatic Electric / Rishabh / Schneider/ Enercon - Conzerve / L&T/ Weigel / Siemens / Jyoti
8	Selector switches	Kaycee / Schneider / Sulzer / Kraus & Naimer
9	Panel indicating lamp	Siemens / Technik / Telemechanique/ L&T / ABB / Schneider
10	Terminal block	Elmex / Connectwell / IMP/ Wago
11	Switch fuse unit / isolator	G.E./Siemens/L. & T./Merlin Gerin / Crompton / ABB / Schneider
12	Fuse and fuse base	G.E./L.&T. / Merlin Gerin / Crompton . / ABB / Schneider
12	APFC Relay	Siemens (EPCOS) / L&T /Merlin Gerin / Areva / ABB / Schneider / C&S
13	Capacitor bank (gas filled)	Siemens / Merlin Gerin / MEHER (L&T)/ Crompton / Universal / Prabodhan n / ABB / Schneider
14	Starter / contactors	Siemens/L.&T./Merlin Gerin / Telemechanique / Schnider / Crompton . / ABB /BCH
15	L.T. Power armoured cable	Finolex / Asian / KEI / Polycab / CCI / Gloster / Universal



16	Cable termination glands	Braco / Commet / Jainson / Dowells / Lapp / Bimed / Roxtec
17	Cable socket lugs	Dowells / Jainson / Schneider
18	FR grade PVC conduit (heavy gauge) ISI mark and accessories	Precision / Asian / any reputed make
19	ERW/M.S. conduit (heavy gauge) ISI mark and accessories	Vimco/B.E.C./B.I.
20	FRLS PVC insulated wires (ISI mark)	Finolex / Sundeep / Poliplast/polycab/RR unilay
21	White ceiling rose /pendant batten/ slant holder (ISI mark)	Anchor
22	Wooden screw	Nettlefold
23	Modular type switches, sockets, electronic regulator, bell push	Legrand (Mosaic) / Novar India(M.K.Antiquity)/ /clipsal /(H2000Mega) / Schneider / Harting
24	Metal clad insulated plug & socket	Legrand / Ficher / Scame/clipsal / Mennekes / Harting
25	Light fittings/lamps/tubes	Philips/G.E./Bajaj Crompton/ Wipro /Finlight / Phoenix
26	Ceiling fan unit	Crompton high efficiency/Usha prima
27	Exhaust fan unit	G.E./Crompton / Newtech/Legrand
28	Wall mounted Fan	Crompton / Almonard
29	Bell unit	Anchor
30	Telephone tag box	Krone
31	Telephone armoured cable/wires	Delton/Finolex/I.T.L. /KEI
32	Telephone socket (RJ-11 jack type)	Legrand / Nover India/Clipsal
33	Single pair unarmoured telephone wire	Delton/I.T.L. /Finolex / KEI
34	PA system	Philips / BOSCH / Ahuja / Motwane
35	LAN cable	Lucent (Avaya)/ Amp / Legrand
36	Data outlet RJ-45 socket	Avaya / Amp / Lucent / Legrand/clipsal / Harting
37	Load Manager / Power meter	L.& T. / Merlin Gerin / Siemens / Enercon - Conserve.
38	LT Switch board & Main Distribution Board, Main breaker and main distribution panel .	Siemens/ L.& T. /G.E. / Crompton / Legrand/Merlin Gerin/Schneider /Konecranes
39	CT / PT	AE / Kappa / Crompton / Siemens / Schneider / ABB / Trafomic
40	Main conventional fire alarm control panel	Monsher / Minimax / Mather & platt / Honeywell /Bosch / Schneider
41	Optical smoke detector with base	Edward / Apollo / Hochiki / Satel
42	Heat detector with base	Edward / Apollo / Hochiki
43	Response indicator / hooter / break glass unit	Monsher / Minimax / Mather & platt
44	Cable trays	Asian Ancillary Corporation / Meghatech Engg. / indiana/ Ercon / Patny / Mahavir



45	Step Down Transformer	Binary, AE , Aplab, Schneider / kappa/ gupta / ABB / Voltamp / Schneider
46	Microprocessor based releases for ACB	Siemens / L&T / Merlin Gerin/GEC / ABB / AREVA / C&S / Crompton Graves / Schneider
47	UPS	Merlin Gerin/HI-REL / C&S / Emerson / MG / Hi-Rel / Schneider / APC / Luminous
48	Computer latest version with CMS loaded	HP, ACER / DELL
49	Laptop with All required software, license keys, communication cables and accessories (PLCs, HMI, VVFD etc.).	Processor- I7 13 gen or higher Ram-64 GB DDR5 or higher Display- 15.6 inch FHD touch screen Graphics- Inbuilt graphics HDD- 1 TB SSD x 2 no's with min read data transfer speed 7700 Mbit/s and above Backlit keyboard OS- Win 11 pro or higher minimum I/O port- HDMI, thunderbolt with USB type c. Make HP/ACER/DELL

32. CRANE DESIGN CLASSIFICATION

32.1 The crane structure and machinery is to be designed in accordance with the following standard specifications:

FEM/I 3rd Edition 1998

Alternatively, the crane can be designed to BS 2452, or any other comparable recognized international crane design standard subject to MDL's acceptance and approval.

Classifications as per FEM standard,

S/N	Particulars	
a)	Structure and complete crane Structure and complete crane	
	Classification of Utilization	U5
	Group Classification	A5
	State of Loading	Q2
	Duty Factor	0.95
	Impact Factor	1.15
b)	Main Machinery	
	Main hoist Group Classification	M5
	Main hoist Classification of Utilization	T5
	State of Loading	L2
	Aux. Group Classification	M6
	Aux. hoist Classification of Utilization	T6
	State of Loading	L2
c)	Slewing Group Classification	M6
	Classification of Utilization	T6
	Loading Spectrum	L2
d)	Luffing Group Classification	M6
	Classification of Utilization	T6
	Loading Spectrum	L2
e)	Travel Group Classification	M6



Classification of Utilization	T6
Loading Spectrum	L2

Note: The classification/rating of the crane is not limited to the above, but shall confirm to the latest standards/specifications and the crane has to be designed considering all safety standards. Any safety critical parts of control system shall be minimum Performance Level C as per ISO 13849-1.

33. OPERATING CONDITIONS:

33.1 The crane is to be stable in still air conditions with 160% of the safe working load upon the hook.

33.2 The maximum permissible linear rail loading specified in Clause 26 shall not be exceeded for any possible load, outreach and operating or out of service combinations including, inter alia, dead loads, live load, inertia forces and wind and storm loadings. The highest loading for any condition shall always remain within the permitted rail load.

34. OUT OF SERVICE SECURING AND STORM ANCHORS:

34.1 The crane shall be equipped with clamp, remotely operated from OPERATOR's cabin to secure the crane when not in service. The clamps shall be capable of safely holding the crane against movement by wind with 50% of the wheel brakes inoperative. Electric interlocks shall be provided such that the travelling machinery cannot be energized until the clamps have been released.

34.2 The crane shall also be equipped with some form of mechanical locking device(s), by stowage pins for example, locating into special reinforced anchor location or similar to secure against movement during storm conditions. The device(s) shall be fitted to the crane portal structure on each side of the crane, not to the long travel bogies. Ideally the pins and anchor locations shall provide the resistance to overturning rather than having to resort to separate tie down provisions where the design rules adopted allow for the existence of net overturning moments. Electric interlocks shall be provided such that the travelling machinery cannot be energized until the storm anchors have been released. Bidder shall supply and install mechanical locking device and anchor box.

35. STRUCTURE:

35.1 The main structural elements of the crane is considered to comprise, inter alia, the portal, crane column, slewing frame, machinery house, 'A'-frame, Jib and counterbalance arrangement and the operator's cabin. The crane portal is to have a minimum clear height of 6m to permit vehicle access to the quay.

35.2 All structural elements shall be made from low carbon weldable steel in accordance with EN 10025, 1993 standards or as dictated otherwise by the crane design code adopted. The minimum allowable thickness for structurally significant elements is as per followed standards, however, not less than what enables corner rounding as per preworks for surface treatment as per ISO 12944 - C5.

35.3 The structural members of the crane shall be of rolled steel plates and sections and shall be constructed using electric welding. Counterbalance weight can be made from steel box filled with concrete and steel scrap.

35.4 All enclosed volumes within the structure that are not 100% sealed shall be fitted with weatherproof covers or similar to facilitate inspection. Corrosion resistant primer coat will be applied before the closing plate welding.

35.5 Construction joints, such as splice plates in the portal and jib, employing clench bolts or similar high strength friction fastenings shall be assembled with clean metal to metal



surfaces. Such joints are then to be fully coated after completion. Other structural bolted joints shall be made by painting the contacting surfaces and assembling whilst the paint is still wet or by having primer paint surfaces and adding flexible sealant.

35.6 Platforms, walkways and stairs shall be designed to accommodate a live load of 3.5 kN/m² and a concentrated load of 100 kg at any point. All such components shall be hot dip galvanized to BSEN/ISO 1461 or latest internationally recognized standard.

35.7 Where electric cables, hydraulic lines or similar vulnerable items are run through the crane structure access panels shall be provided for inspection and maintenance purposes. All exterior surface runs shall be adequately protected from accidental damage.

35.8 Steel mill cast or batch properties certificates relating to all major structural steel shall be provided to the MDL by the Supplier. The unique steel batch identities shall be traceable throughout all stages of manufacture up to and including site erection. All such certification information shall be retained within the Suppliers QA and internal documentation storage system. This information shall be available for inspection by the MDL on request at any time throughout the operating life of the crane.

36. WELDING:

36.1 All welding shall be undertaken using the metal arc process. All welding consumable shall be stored and used in strict accordance with the manufacturer's recommendations and the electrodes selected shall provide weld metal properties as close as possible those of the parent materials. The Supplier shall hold copies of the manufacturer's tests on representative samples of electrodes.

36.2 Structural welding shall only be undertaken at the Suppliers works or within the premises of appointed sub Suppliers.

36.3 All weld spatters shall be removed and welding scars from stray arcs and temporary attachments etc. shall be made good. All free edges of steel work shall be ground or similarly dressed to provide a corner radius in accordance with ISO 8501-3 preparation grade P3 of not less than 4mm to prevent premature failure of the coating system applied.

36.4 Only adequately qualified welders able to demonstrate their competence through recognized examination or work record shall be employed on the fabrication of the crane.

36.5 All welds will be subject to 100% visual inspection for defects such as undercutting, surface porosity, acceptable weld bead, fillet shape and size. All structural full penetration butt welds shall be subject to 100% NDT inspection (dye penetration and ultrasonic) and 30% RT (T joints as well as seams on a random selection basis) whilst other structural welds shall be subject to 25% NDT inspection on a random selection basis or as per Designer's QAP and approved by the MDL executive. Any significant weld defects identified shall be rectified by the most appropriate means.

36.6 Testing will be witnessed by an independent TPEA. As per agreed QAP/ Inspection plan, all Inspections by TPEA will be carried out at the place of fabrication and final erection, testing and commissioning will be at MDL site.

37. MECHANICAL CONNECTIONS:

All high tensile bolts and fastenings shall be supplied with identifying marks and, where employed for structural joints all such fastenings shall be supplied with a recognized corrosion resistant surface finish. All fastenings shall be supplied in metric sizes. Where high strength threaded fastenings are employed a schedule of fastening torques is to be supplied.



All structural fastenings shall be 12mm diameter or larger and no connection transmitting a design load shall employ less than two fastenings. 5% excess quantities of all types and sizes of site construction fastenings shall be supplied and delivered in total.

38. COATING SYSTEM:

38.1 The paint coating system shall be mostly applied within the manufacturer's works in a controlled environment with only damage repair, construction joint painting being permitted on site prior to the application of the top coat. Each paint coat shall be of a different colour to the preceding one to help ensure proper coverage is achieved. All coatings are to be applied in conformance with the paint manufacturer's published requirements. Such requirements are considered to form an integral part of this specification.

38.2 Structural steel of thickness greater than 6mm shall be blast cleaned to Swedish standard SIS 055900-1967, grade Sa 2.5 and immediately painted with a zinc silicate based primer of 15-25 microns DFT. Wherever possible paint shall be applied by airless spray. Where this process is impracticable roller or brush application may be employed although the number of applied coats may need to be adjusted to achieve the desired DFT at each nominal coat stage.

38.3 The paint system of steel structures shall comply with ISO 12944 C5 durability high for external structures exposed to weather. The external finish top coat shall be Daffodil Yellow (RAL No. 1007) polyurethane based top coat paints to be used. A four-coat system shall be employed for all external steel work providing a minimum dry film thickness (DFT) of 300 microns. A two or three coat system providing a minimum DFT of 200 microns shall be employed for all internal steel work protected from the weather. The interior of the machinery house and other areas man accessed shall be Oyster white (RAL No.1013)

38.4 The paint system of steel structures shall comply with ISO 12944 C5 durability medium for internal steel work protected from the weather. The external finish top coat shall be polyurethane based top coat paints. The interior of the machinery house and other areas man accessed shall be gloss white.

38.5 The overall systems shall be designed to provide 05 year coating life with minimum degradation of the top coat colour over this period.

38.6 Coated surfaces will only be inspected when the paint is fully dry. Inspection criteria will include achieved DFT, consistency of application and the physical appearance of the paint coat. The painting system shall be inspected, approved and certified by TPIA.

38.7 Any repairs necessary to the coating system should be undertaken at the earliest possible opportunity to reinstate the relevant stage and DFT. The coating system in way of the bare steel construction joints shall stepped back, coat by coat, to allow the overall coating system integrity to be achieved on site as used for the workshops.

38.8 The supplier shall provide approximate paintable crane surface area in square meter after commissioning of the crane. Note: Preferred Paint makes are already given at Para 90. Preferred Paint makes are JOTUN/HEMPEL/ SIGMA/AKZO NOBLE/KCC.

39. OTHER PROTECTIVE REQUIREMENTS:

39.1 All machined surfaces of machinery or components for assembly and spares shall be protected against corrosion during transit and storage generally in accordance with BS 1133 or similar recognized standard.

39.2 All spare parts forming part of the contract supply shall also be protected from corrosion by packaging or similar means to prevent deterioration during transit and storage.



All spare parts shall be adequately identified by name and/or part number as appropriate.

40. MACHINERY:

40.1 The machinery design and selection shall be in accordance with those standards identified in Clause 21 and embrace logical equipment layouts that will deliver safe and reliable operation and ready access to all elements for inspection and maintenance including ready removal and replacement.

40.2 All critical items of machinery demanding precise alignment one with another shall be located by means of dowels or fitted bolts.

41. GEARBOXES:

41.1 All gearboxes shall, wherever possible, be of reputable proprietary manufacture from standard components. The gearboxes shall be sized to withstand all normal service loads likely to be imposed and to have a predicted life equal to that of the crane.

41.2 The gearbox casings shall all be readily opened for inspection and maintenance of the internals and shall be completely oil tight during operation. Lubrication shall be by oil bath and splash rather than pump circulation.

41.3 The gearboxes shall be of oil-tight welded or cast steel construction and provided with suitable lifting lugs to both halves. Main hoisting, Auxiliary Hoisting & Luffing gearboxes must be horizontally split type. Other small gearboxes can be vertical split type, which can be taken to shop for repair.

41.4. All gearboxes shall be equipped with oil drainage gate valves with the outlets piped to a convenient central spent oil collection reservoir. The spent oil collection reservoir shall be fitted with a visible external oil level indicator and a "full" alarm wired to a warning light on the crane operator's control panel linked to the crane management system. It shall either be readily removed from its operational position and designed for easy handling by the service crane to the ground for emptying and cleaning prior to reinstallation. An alternative adequate system for the removal and handling of the waste oil from the spent oil collection reservoir may be proposed by the Suppliers. Any drainage valve(s) shall be protected from accidental damage.

42. BEARINGS:

42.1 All rotating bearings shall be of the anti-friction type of a reputable make and have a service life compatible with that of the equipment on which installed. All exposed bearings (not in gearboxes for example) shall incorporate two seals per side to separately exclude foreign materials and retain the lubricant.

42.2 Pre lubricated sealed for life bearings shall not be used on any of the major crane components. Grease nipples shall be provided as defined in Clause 70.

42.3 The machinery frame with the jib system shall rotate on a slew bearing.

43. ROPE DRUMS:

43.1 All drums shall be fabricated from weldable carbon steel and be machined after fabrication and stress relieving. The drum shall carry helical grooves to suit the diameter of wire rope to be used and as specified in the design standard employed.

43.2 There shall be a minimum of 2.5 dead turns remaining on the drums when the hooks are at their lowest point. The laying of the wires during hoisting shall be by means of guide rollers controlled by a scroll mechanism. The loss of a wire from either a drum groove or the



second rope layer (if applicable) during slack rope conditions shall be prevented by a control roller extending the full width of the drum.

43.3 Only single layer of rope shall be permitted on the drums. At least one spare full wrap of Wire rope on the drums shall be remaining when the hooks are in the fully raised position.

43.4 A full width and depth drip tray shall be provided beneath each rope drum to catch and contain any rope lubricant spill.

43.5 All drums shall be mounted in ball or roller bearings and fitted with fail-safe Hydraulic caliper disc brake operating on drum flange or electro mechanical thrusters operating on a full wrap lined band brake. The brakes shall be able to securely hold the design maximum test overload load of the individual winches. Provision shall exist to safely control the progressive release of such brakes to effect the lowering of any load.

44. WIRE ROPES:

44.1 Wire ropes shall be of the pre-formed non-galvanized type of approved construction and from a reputable supplier. The ropes should be conforming to ISO 16625 Standard and be supplied in the pre-lubricated condition. The designed maximum rope load shall be defined using safety factors as per FEM. Rope Safe Working Load (SWL) to be used as given in rope manufacturer datasheet.

44.2 Wire ropes that are operated in pairs from left and right grooved drums shall be constructed to opposite hands. The rope ends shall be secured on each of the drums by means of bolted clamps.

45. ROPE SHEAVES:

45.1 The minimum pitch diameter of the sheaves and the groove radius and form shall be in accordance with the requirements of the crane design standard being employed. All sheaves within a particular hoist system shall be standardized with material of cast steel or welded type and fully interchangeable one with another where reasonable. All individual sheaves shall be statically balanced. Bearing diameters for the sheaves shall be equal to or greater than specified within the design standard employed, provided the documentation to be provided vetted by TPEA

45.2 The blocks and trolley sheaves assemblies shall permit easy and ready removal and replacement of individual sheaves, bearings and associated shafts with adequate and safe working space available in all cases. The individual sheaves shall be designed to allow ease of handling.

45.3 The sheaves shall be fitted with suitable covers and collectors to contain, as far as is reasonable, contamination of the surrounding structure and area beneath the crane from excess rope lubricant. The covers are to be fitted with inspection doors and be designed so as to offer minimum obstruction to the maintenance of the sheaves.

46. BLOCKS AND HOOKS:

46.1 The main hoist hooks are to be manufactured from high tensile steel and be of the ram's horn type to BS 3017/DIN15402 or equivalent mounted on roller bearings and fitted with gravity type safety catches generally to DIN15402/BS 2903. The hooks can be manufactured either from steel forgings or by steel fabrication.

46.2 The auxiliary hoist hook shall be of the 'C' type manufactured from a steel forging and equipped with a gravity safety catch generally in accordance with BS 2903 or equivalent. The hook shall be mounted on a ball or roller bearing.

**PART C: MAIN CRANE MOTIONS:****47. GENERAL:**

The crane shall be provided with independent machinery units for hoisting, luffing, slewing and long travelling, each operated by their independent motor(s) with PLC frequency controlled drive. The crane shall be capable of performing all operations (long travel, slewing, luffing and hoisting) at a time with no load. However, for smoother and safe operations the crane shall be capable of 2 operations at a time.

48. LONG TRAVEL:

48.1 When developing their designs for this element of the crane Suppliers shall read this section in conjunction with Clause 26 Crane Rails - giving particularly attention to any limited operational clearances identified.

48.2 The long travel machinery shall consist of a number of identical bogie mounted drive units installed at the corners of the portal leg structures. Typically, the drive units will be powered by intermittently rated totally enclosed AC motor driving a crane wheel through a geared reduction drive. Number and dimensioning of long travel machineries of the crane shall be such that crane can be operated with one machinery out of operation at limited speed. The total installed power shall be capable of moving the crane at 75% of rated speed into the maximum in-service wind with nominal load lifted.

48.3 The drive units shall be provided with step less variable speed with variable voltage and variable frequency control over the full torque / speed range. Regenerative braking is to be provided for speed control under normal dynamic operation.

48.4 Each drive unit shall also be equipped with an electro-magnetically released brake located at the gearbox input capable of holding the crane in the stopped condition and providing emergency braking capabilities sufficient to stop the crane with the maximum in-service flowing wind and shall be rated 50% higher.

48.5 All brakes shall be installed within weather proof covers. Long travel drive space heaters shall be controlled by PLC system by monitoring the idleness of the drives to ensure proper operation after long periods of idleness in a location of very high humidity as defined in Clause 2.

48.6 A minimum of 50% of the rail wheels shall be driven and braked. Generous ground clearances shall apply in both cases. The drive and braking arrangement selected must allow movement of the crane by external means (in exceptional circumstances) without inducing any consequential damage.

48.7 All crane wheels shall be as per clause 26. All wheels and gears shall run in anti-friction bearings. Pinned connections on the crane bogie frames and any load equalizing structures can be mounted in plain, non-ferrous bushes. The loading on each group of wheels shall, as far as can be realized, be made equal.

48.8 Jacking hard points to the concrete surfacing of the crane track will be in supplier's scope to permit the safe jacking of the crane to allow bogie maintenance to be performed. The Supplier shall provide to the MDL with details of the jacking system being provided within 4 weeks of award of the Contract including;

- a) The area of the base plate of the jack.
- b) The maximum anticipated vertical load on each jack (including for all potential wind loads).
- c) The "in plan" position of the jacking pedestals on the crane bogie and of the jack base plate when jacking is undertaken.



48.9 A weatherproof travel control station is to be provided near ground level at opposite corners of the portal to allow the crane to be moved during maintenance. These control stations to be interlocked to prevent attempted control from both stations at the same time. The stations are both to be automatically isolated from use when the driver's cab is occupied during normal crane operation.

48.10 Audiovisual alarms shall be fitted at eye height on the four ground corners of the crane to be initiated whenever the long travel drive is selected. The crane movement itself shall be delayed by some seconds from the alarms to allow personnel and machinery to move out of danger. The audiovisual alarms shall operate continuously while the crane is in motion.

The following interlocks and limit devices shall be fitted.

- a) The limits of track travel in both directions shall be regulated by means of two sets of limit switches. These shall operate in parallel with the cable reel over travel switches to provide a two stage protection, initially reducing the long travel speed to some 10% of maximum before the drive is switched off and the brakes applied.
- b) Crane long travel motion will be inhibited if the storm anchor pins and/or bracing are deployed or if the bogies maintenance jacking points are being used.
- c) Trip bars, trip plates or optical sensors are to be provided covering from near rail level to a height of 2 meter, positioned at each corner of the crane to cover the full width of the bogies in the direction of travel. They shall interrupt the long travel drive and apply the brakes if contacted or triggered by personnel or objects.

48.11 Compressible hydraulic buffers are to be provided at each corner of the crane compatible with the track end stops. Brushes shall be fitted to the leading edges of each outer bogie to clear the rails of minor debris.

49. LUFFING MOTION:

49.1 The luffing motion of the jib may be operated either by hydraulics or a ball nut and screw or a multi sheaved rope system, and shall be powered by an intermittently rated AC motor. The luffing motion control system shall be provided with a frequency controlled variable speed control over the full motor speed / torque range with steps less control.

49.2 Jib crane will be lowered to parking position for rope changing / maintenance.

49.3 As a minimum, the luffing system employed shall be duplicated for safety, such that in the event of one element of the system failing the remaining element(s) will be able to securely retain the maximum possible load / outreach combination.

49.4 Two sets of failsafe brake assemblies (one safety brake operating directly on drum flange and one operational brake on the primary (motor) side of the gear) shall be installed on the drive each provided with a positive mechanical link between the applied load and the brake components

49.5 Normal braking shall be regenerative, regulated by the control system to provide smooth, step less operation. An over-speed sensing system shall be provided that will automatically shut down the motion and apply the brakes if activated and shall be minimum performance level c as per ISO 13849-1

49.6 As a safeguard against possible failure of the normal limits extra ultimate travel limits shall be installed bringing the motion safely to a stop and requiring reset to restart motion. If operated at extended lifting height control system shall ensure hook



is not lifted into boom during luffing. The luffing control solution shall fulfill minimum performance level c as per ISO 13849-1. Mechanical stoppers to be provided at both ends in the case of a luffing screw mechanism in addition to limit switches and structural buffers.

49.7 As a safeguard against possible failure of the normal limits extra ultimate travel limits shall be installed bringing the motion safely to a stop and requiring reset to restart motion. If operated at extended lifting height control system shall ensure hook is not lifted into boom during luffing. The luffing control solution shall fulfill minimum performance level c as per ISO 13849-1. Mechanical stoppers to be provided at both ends in the case of a luffing screw mechanism in addition to limit switches and structural buffers.

49.8 The luff position of the crane is to be continuously monitored and factored with the hook load information from the main hoist to provide actual tonne-metre loading information. If the design value is reached at any radius the control system shall inhibit any further luff out and only allow the jib to be luffed in.

49.9 The Supplier shall identify the means adopted to comply with all the luffing operating and safety aspects as defined in this section.

50. SLEWING MOTION:

50.1 The crane slewing system shall consist of multiple, intermittently rated AC motors operating through reduction gear sets to rotate the superstructure assembly through 360 degrees relative to the portal base. The motor capacities shall be such as to enable the crane to be safely slewed in the event of the failure of one of the drive units.

50.2 The drive motors, or first stage gearboxes input shafts, shall each be fitted with twin external shoe spring/electromagnetic brake/ electro-hydraulic thruster brakes

50.3 The slewing motion control system shall provide step less variable speed frequency control over the full torque / speed range. The motor speed is to be coordinated with the jib luff position to ensure excessive load travel speeds and centrifugal forces are avoided.

50.4 The crane superstructure shall be equipped with some form of mechanical locking device, by stowage pin for example, locating into an anchor location in crane base structure or similar to secure against rotational movement when the crane is unmanned and out of service. Electric interlocks shall be provided such that the slewing machinery cannot be energized until the locking device has been released.

51. HOISTS (MAIN AND AUXILIARY):

51.1 The hoist machinery shall consist of a winch driven by a continuously rated AC motor through an enclosed reduction gearbox driving the rope drum. Normal braking shall be regenerative and regulated by the electrical control system to produce smooth step less electrical braking.

51.2 A rope tension or drum torque measuring devices shall be provided on all winches to provide continuous load indication readout to the driver's cab. The hoists shall automatically apply load matching counter torque to the drums immediately prior to brake release, whether for further hoisting or lowering, to prevent load snatch. Lowering shall be automatically stopped if a slack rope condition is encountered.

51.3 Normal lowering operations shall be by means of regenerative braking so as to provide continuously variable speed control. In addition, the hoists shall be equipped with electric mechanical or electro hydraulic brakes able to bring a lowering load, up to and including the test load, to a complete and smooth halt in the event of mains supply power failure or the application of an Emergency Stop button and safely hold the load at any position of the lift during normal operations.



51.4 The winches shall each be fitted with an over-speed monitoring and prevention system able to apply the brakes to control the load if necessary that shall be minimum performance level C as per ISO 13849-1. Additionally, the driver's cab shall be provided with readouts depicting either the rope or the hook speed for each winch.

51.5 Two sets of failsafe brake assemblies shall be fitted on the drive able to bring a lowering load, up to and including the test load, to a complete and smooth halt in the event of mains supply power failure or the application of an Emergency Stop button and safely hold the load at any position of the lift during normal operations. The brake systems shall be designed for at least 2 times the hoist load. There shall be a positive mechanical link between the winch component that generates the braking effect and the supported load.

51.6 The winch barrel shall be fabricated in steel and flanged at the ends. The ropes shall be accommodated in one layer and have at least two unclamped wraps remaining on the drum when the rope for normal operations is passed out. The drum shall have one full wrap available when for normal operations the rope is fully wound in. An over-speed switch shall be fitted to the drum that, in an over-speed condition, will shut down the motion drive and apply the brakes.

- a) Operation of the hoist motion shall be regulated by the following limits and interlocks:
- i) The upper and lower limits of the hoist motion shall have normal slow down and stop limit switches. The switches shall be wired into the control circuit. To safeguard against failure of the normal limits an over hoist limit shall be provided at a short distance beyond the normal stop limit and be wired into the main hoist contactor;
 - ii) There shall be fitted a limit switch to stop the machinery if the rope has come out of the rope grooves on the rope drum;
 - iii) There shall be fitted a limit switch to stop the machinery if, with the hook on the ground, there is less than 2 turns of rope remaining on the drum.

51.7 The drive unit is to be equipped with a speed control system providing frequency controlled variable speed control over the full torque / speed range with (step less control). A drum speed indicator calibrated in m/min shall be fitted in the view of the crane operator. The control system is to include a full range of safety functions that, when activated, will cause the machinery to be switched off and the mechanical brake to be applied. (HMI & encoder on the motor)

PART D: ELECTRICAL EQUIPMENT

52. GENERAL:

52.1 All electrical installation work shall comply with the current edition of the IEE (Institution of Electrical Engineers Regulations for Electrical Installations and / or other comparable Indian or international standard.

52.2 The electrical equipment (motors, PLC, VVVF drives, HMIs, Encoders, controls, switches, safety devices, panels, etc.) shall be designed for safe and satisfactory operation under conditions of temperature and moisture as indicated in the main particulars.

52.3 All electrical equipment shall be located for ready accessibility for maintenance, repair and removal. All electrical equipment shall be protected, by means of installing them in closed casings when needed, so as to exclude accidental contact.

53. POWER SUPPLY

53.1 Power supply to the crane shall be as stated in Clause No. 29.

53.2 All electrical installations shall be adequately earthed to protect from the consequences



of lightning strikes. **Lightning arrestors** shall be provided at the upper extremities of the crane and the crane structure shall be electrically bonded to the rail as defined in Clause 29.2. Use of the long travel bogies and wheels, as the conduction path is not permitted. The Supplier shall provide full details of the system.

53.3 All power distribution cables employed on the crane shall be of adequate size and grade with approved insulation and sheathing. All external cable runs shall be enclosed in conduit, all other runs can be on cable trays, within trunking or in conduit. All cable terminations shall be made through suitable watertight glands. Design provisions shall be made to minimize the probability of condensation occurring at any point in the electrical installation whether in conduits, junction boxes, control cabinets etc.

53.4 Normal wiring in control cabinets and consoles.

53.5 All electrical cables shall be protected from the possibility of mechanical damage and shall be clearly marked to coincide with the wiring diagrams to be supplied for all systems by the Supplier. Fuses shall conform to BS 88 or equivalent and be of the H.R.C type. All power cables used shall be of ISI/BIS/IEC or latest international standard.

53.6 The crane electrical systems shall be provided with an agreed level of radio frequency immunity and all installed electrical equipment and machinery shall be suppressed against radio frequency generation.

53.7 Every cable shall be properly marked on both sides. They shall be done permanently by hot stamping the identifications on to PVC sleeves. The marking of the cables as per manufacturer's standard proven design is also acceptable. The numbering of the cables shall be systematic such that maintenance staff can easily identify the location, function or electrical system of a cable through the number.

53.8 10% spare cores shall be provided in control wiring, properly marked and terminated at spare connector or terminal blocks throughout the crane.

53.9 Every cable shall be secured and supported in such a manner that the cable and its termination shall not be exposed to undue mechanical strain.

53.10 The crane drive system shall also be equipped to handle the reverse energy generated in the crane to feedback on to the electrical network and also ensure that the harmonics are less than 5% (total harmonic distortion is less than 5%).

54. CABLE REEL SYSTEM:

54.1 The cable reel shall be of the bi-directional, mono-spiral type operating at a constant cable tension throughout the full extent of travel in either direction. The cable is to be terminated at a central turn over anchor if center feed is used. The reel shall be driven by a suitable electric motor. The crane long travel drive shall be interlocked with cable reel drive such that it is able to temporarily slow the crane on approach to the turn over position if required. The Supplier shall provide the reeling drum system to suit the existing facility.

54.2 The reel and associated gearbox shall be fitted with over temperature and over tension protection interlocked to shut down the long travel drive in the event of problems.

54.3 The reel shall be constructed from galvanised steel and be sited on the crane such that it fits within the overall envelope of the crane. Reeling in and out shall be synchronised to suit the crane long travel movement and the cable shall be guided onto the reel from the cable trench by means of paired rollers.

54.4 A minimum of 3 dead turns shall remain on the cable reel at the extremities of travel. The cable shall be sized to compensate for voltage drop along its length.



54.5 The cable reel drive system shall be capable of paying out cable whilst in the un-powered condition, in response to wind movement of the crane, without over tensioning the cable. CRD Feed Point will be in mid-point.

54.6 Adequate access by staircase and platforms shall be provided to the whole of the Cable Reel system for maintenance purposes.

55. ELECTRIC MOTORS:

55.1 The electric motors fitted to all the crane motion drives shall comply with applicable relevant parts of BS 4999 and / or BSEN 60034 or latest recognized international standards. / Indian standards. Individual hours run meters shall be provided for each motor, or group of motors, associated with each crane motion.

55.2 The hoist motors shall be capable of withstanding an over speed of 10%.

55.3 Motors operating under cover from the weather shall have a protection code of IP 54 whilst any motors exposed to the weather shall be protected to IP 55 standard. All motors shall be of the totally enclosed type. Cooling can be provided by separate external fan or by integral fan depending on rating and duty.

55.4 All motors shall have their windings suitably impregnated to withstand tropical duties and to insulation Class F, suitable for variable frequency drives.

55.5 All main motors shall be equipped with anti-condensation heaters and be provided with over temperature protection by means of embedded thermistors

55.6 Type of Main Motors – AC squirrel cage induction motor suitable for speed control of variable frequency drive.

55.7 The loading of the electric motors should not exceed the rated current under specified operating condition.

56. LIMIT SWITCHES AND EXTERNAL INTERLOCKS:

56.1 All main motions of the crane shall be protected from over travel by means of limit switches. All such limit switches shall be of robust construction and totally weather proof. These as a safety critical parts of the control system shall fulfill minimum performance level c as per ISO 13849-1.

56.2 Non critical applications may employ non-contacting or proximity devices if preferred.

57. CONTROL EQUIPMENT:

57.1 The Electrical room in which the electronic controls and systems are installed shall be suitably air-conditioned. Machinery room shall be suitably ventilated

58. PROGRAMMABLE LOGIC CONTROLLERS:

58.1 Modern Programmable Logic Controllers (PLC's) shall be employed for all drive sequencing and system interlock functions interconnected and networked with each other. Details of the communication structure proposed in support of these requirements shall be included within the Tender.

58.2 All components of the PLC's shall be suitable for extended industrial use within the particular operating and climatic environment applicable to the crane. The memory capacity shall be sufficient to contain control algorithms for more than one function and space shall be available to extend the memory to support future developments. The PLC I/O ports shall



be capable of being individually programmed and provision shall be made for additional I/O ports if required in the future.

58.3 Access to the series links of the PLC's shall be provided within the driver's cab and the machinery house(s).

58.4 The PLC's shall be provided with programming and monitoring facilities for maintenance and fault logging. Off line revision and development of programmed and documentation production shall also be possible.

58.5 PLC expansion shall be by plug in modules to a common rack. Self-diagnostic capability shall be incorporated in all PLC's both on line during operation and when powered up. All faults shall be visually displayed and signaled by the sounding of an audible alarm, with mute facility, within the driver's cab.

58.6 The PLC programming language employed shall be of PLC make latest generation language. Only authorized users shall be permitted access for program amendments. The system shall be capable of providing real time display of programs and equipment status information to remote sites.

58.7 Laptop as per the specifications mentioned in sr.no.49 of clause 31 of SOW with All required software's, license keys, communication cables and accessories PLCs, HMI, VVFD, etc.,

59. MAIN SWITCHBOARDS, MOTOR CONTROLS, OPERATOR CABIN AND DISTRIBUTION BOARDS:

59.1 All cabinets shall be designed with heaters, air circulating fans and/or air conditioning as required to ensure that the possibility of condensation occurring within them when in or out of service is avoided and that the maximum operating temperature of installed components and equipment is not exceeded. However, the control panels accommodating VFDs should have air conditioning or be located in air conditioned e-room.

59.2 Control gear for the main crane motions shall include "hours run" meters, circuit testing capabilities and fault indication equipment. Any such faults arising shall be relayed to a conveniently located central fault indication panel able to identify the motion in which the fault has occurred. Fault SIGNAL/messages shall also be provided in the OPERATORS cab

59.3 The control panel shall be free standing, metal enclosed and made of CRCA Sheet steel of minimum 2 mm thickness, fully treated with 7/9 tank process, powder coated with grey color.

59.4. The electrical cubicles in air conditioned space shall be of minimum IP 20 Protection. Electrical cubicles elsewhere shall be minimum IP55. All the components of the panel shall be of reputed make and fully conforming to the relevant IS standard / equivalent international standard.

59.5 The indicating instruments shall be of flush mounting type and of 96 x 96 mm size. The indicating lamps shall be of LED type.

59.6 All the internal wiring shall be done with proper ferrule numbers at both ends. The wire used for control wiring shall be multi stranded copper wire of size 1.5 sq. mm. All the internal power cables shall be of multistranded copper conductor flexible cables and of required rating.

59.7 All the components and the panel shall have identification name plate. The name plate shall be durable plastic stickers or anodized Aluminum with engraving durably fixed. Paper stickers for identification of the components are not acceptable.

59.8 All the power and control terminations for external connections shall be terminated on the bottom portion of the control panel with suitable rated terminal blocks. There shall be spare terminals for future use.



59.9 All the cable entry shall be from the bottom of the panel. The gland plate shall be of 3.0 mm thick M.S. powder coated plate. All the cables required for the connection of the motor, resistance box, master controller and the brake with the control panel including earthing cables shall be in vendor's scope. All brass cable glands and copper cable lugs required for the termination of the external cables and termination of all the cables shall be in vendor's scope.

59.10 A wiring diagram of the specific cabinet components shall be provided on the inside of the cabinet doors.

60. WIRING:

60.1 Where the control system wiring or similar vulnerable means of transmitting electrical or electronic signals are run through the crane structure, access panels shall be provided for the inspection and maintenance purposes. All surface runs, whether exterior or interior, shall be adequately protected from accidental damage.

61. CRANE MANAGEMENT SYSTEM:

61.1 A Crane Management system shall be proposed by the Supplier. This system shall at a minimum comprise the following elements:

- a) Crane Operations Monitoring and Management.
- b) Crane Fault Monitoring, Diagnosis
- c) Crane Condition Monitoring

61.2 The systems provided shall be capable of informing a remote interrogation facility of the full results of the diagnostic and condition monitoring i.e. the information displayed on the Electrical Equipment House VDU – and enable remote rectification where the problem is not hardware related – or can be ameliorated by adjustments to settings embedded in the software.

- a) Crane Operations Monitoring and Management.

This system shall monitor and record all movement and lifting operations undertaken by the crane for collecting, visualizing, managing and analyzing the crane data. Like bar diagrams for the frequency of alarms and events. Ready-made reports. Machinery run hours and number of starts. Load spectrum diagrams.

- b) Crane Fault Monitoring, Diagnosis and Rectification

System needed to provide clear reports for analyzing the use and help preventive maintenance and troubleshooting. The diagnostics module provides real-time information and assistance for troubleshooting. Real time alarms, events and faults data shall be available. Status of field bus connected devices shall be visually presented. Crane manuals and drawings shall be available in the system. Further crane shall be equipped with remote connection for supplier to provide trouble shooting service if requested. MDL shall be able to turn on and off the connection.

- c) Crane Condition Monitoring Facility

In conjunction with the Diagnostic Facility referred above, a condition monitoring facility shall be provided. Signal presentation with the trend tool as a function of time. Diagrams for the frequency of alarms and faults.

62. INSTRUMENTATION:

62.1 As a minimum the following instruments shall be provided in a readily visible location(s) within the main control panel(s):

- a) A non-re-settable "hours run" meter for each of the main crane drive systems.
- b) Voltage and ampere meters monitoring the incoming supply as well as the



- individual power demands of the individual crane drive systems.
- e) KVAR and Kilowatt hour meters for the complete crane.
- d) Harmonic filters to be provided

63. COMMUNICATIONS:

63.1 Telephone shall be provided within the OPERATORs cabin, within the machinery house and at the portal base adjacent to the access stairs.

63.2 The OPERATOR's cabin shall be provided with a microphone/loudspeaker and microphone/transceiver system so that he can communicate readily with people on the ground and on board ships alongside jetty. In addition to the fixed transceiver one portable personal sets shall also be supplied.

64. CONTROL TRANSFORMER:

64.1 Isolation transformers shall be provided for the control circuits.

65. VVVF DRIVE SYSTEM:

65.1 Reputed make of Common DC bus Regenerative crane duty type VVVF drives listed in preferred make shall be used.

65.2 VVVF drives shall withstand 500VAC.

65.3 Air Conditioner system shall be provided for all VVVF drives.

66. LIGHTING:

66.1 The crane shall be equipped with exterior LED floodlights able to illuminate the crane working area to an average illumination level of 50 lux.

66.2 Access lighting for stairs, walkways and platforms shall be enclosed in weatherproof bulkhead or overhead fittings and shall be able to provide adequate illumination without dazzling users. Interior lighting shall be designed to provide for maintenance and operational activities and provide an intensity of not less than 300 lux overall. Lighting to compartments containing moving machinery must not produce any stroboscopic effect. The lighting fixtures shall be LED lighting fixtures.

66.3 Red neon aircraft warning lights shall be fitted at the highest point of the jib in the fully luffed in condition in accordance with the FAA Regulations applicable to the site. The lighting enclosure shall conform to IP67. The mountings shall be of the anti-vibration type to give an overall lamp life expectancy of more than 20,000 hours. These warning lights shall be fitted with continuously charged standby batteries, or other approved power source whereby the lights shall remain fully illuminated for a minimum period of 36 hours in the event of failure in the mains power supply to the crane.

66.4 All lights and lamps shall be readily and safely accessible for repairs/replacement. The floodlights shall be positioned to allow such replacement be undertaken safely, without the use of temporary platforms or scaffolding.

66.5 Walkway lights and floodlights shall be controlled from the OPERATOR's cab, from the machinery house and from selected access locations on the crane.

66.6 All main lighting circuits shall operate on 240 V, single phase, 50 Hz supply.

66.7 Continuously trickle charged battery or powered emergency lighting shall be provided to enable personnel to safely exit from the crane in the event of a total mains power failure. This emergency lighting shall give a minimum level of illumination 50 lux in all working or accessible areas of the crane. Portable automatic recharging hand lamps are to be provided



in the OPERATOR's cab and machinery house and any other locations where maintenance personnel are likely to be active. Ampere-hour of battery / battery capacity is to be stated."

67. SOCKET OUTLETS

- 67.1 A range of socket outlets are to be provided within the machinery house and OPERATOR's cab and at suitable locations inside and outside the crane structure as follows:
- a) 240 V, single phase, 50 Hz supply.
 - 2 - inside OPERATOR's cab
 - 4 - inside machinery house
 - 1 - near cable reeling drum
 - b) 110 V (55 V to earth), single phase, 50 Hz supply
 - 4 - on outside of crane structure
 - c) 25 V DC.
 - 1 - inside OPERATOR's cab
 - 1 - inside machinery house
 - 2 415 V, 3 phase, 50 Hz, 10 kVA - Welding Set Supply
 - 1 - inside machinery house
 - d) All PLC panels should be provided with 240 V, single phase, 50 Hz supply along with inbuilt retractable laptop stand.
- 67.2 All supplies are to be protected with overload and residual current device (RCD) circuit breakers or suitable switch/fuse arrangements.

68. CRANE BUFFERS

- 68.1 Spring loaded end stopper shall be provided at both side of Crane bogie ends (Seaside and Shop side).

PART E: HYDRAULIC EQUIPMENT AND LUBRICATION REQUIREMENTS

69. HYDRAULIC EQUIPMENT

69.1 Where fitted, hydraulic systems shall be designed and installed in accordance with DIN 19705 to provide smooth, controlled operation. Pipe diameters shall be generous and pressure relief valves are to be fitted at all necessary locations to avoid over pressure situations. Pressure gauges shall be installed on all systems as required. All piping shall be amply supported to prevent vibration and all radiuses and bends proportioned to minimise the likelihood of cavitation. Bleeding points shall be provided at high points in each system and the necessary bleeding sequence instructions provided in the maintenance manual.

69.2 Oil reservoirs shall be of generous capacity, baffled internally to minimize surge and fitted with magnetic drain plugs. They shall be vented to atmosphere through filtered breathers with desiccants and water drains shall also be provided.

69.3 The maximum permitted oil hot spot temperature within any reservoir is 60°C.

69.4 Pump flow and return lines are to be fitted with full flow filters of 10 microns filter capability or better to suit the components employed. Filters shall be fitted with pressure drop blockage indicators and integral bypass as elements of the control/alarm system.

69.5 The Supplier shall provide catch trays or similar such that wherever hydraulic fluids are to be bled or drained from the system, the resultant releases of hydraulic fluid can be captured and removed from the crane without spillage occurring such that they can be disposed of in a controlled manner.



69.6 Where possible hydraulic cylinders shall be parked in the retracted position and fitted with both pressure and wiper seals for the exclusion of dirt. If possible short stroke cylinders shall be fitted with gaiters.

69.7 All design use of hydraulic components must comply with manufacturer's recommendations.

70. LUBRICATION:

70.1 Wherever possible all regular, routine lubrication requirements shall be mechanised, employing small bore piping to pressure distribute lubrication from central reservoirs to all necessary locations. All individual grease lines shall be labelled indicating the item being lubricated. Grease reservoirs shall be suitable for accepting a standard grease pail (25 litre minimum capacity, 300mm outer rim diameter).

70.2 Ideally the lubrication sequence should be initiated either at crane start up or immediately following crane shut down. In the event of continuous crane operation without clearly defined shut down and start up activities, lubrication shall be triggered by a timer system.

70.3 Where manual lubrication is retained all grease nipples etc. shall be brought to convenient and accessible central locations. All nipples shall conform to BS 1486: Part 4.

70.4 Lubrication and oil fill points shall be clearly and permanently labelled with the type of lubricant to be used. A list of all recommended lubricants and oils required for the crane shall be submitted to the MDL's approval that these lubricants and oils are all readily available from stock within India. The Supplier shall be responsible for the first fill of all lubricants and for ensuring that the crane is correctly lubricated in all areas before commencement of testing and commissioning activities.

70.5 All pressure lubricated machinery shall be provided with renewable oil filters equipped with pressure drop blockage indicators.

70.6 To the extent practicable, the Supplier shall provide catch trays or similar such that wherever Lubricants including greases and oils are ejected or otherwise removed from the system concerned, the resultant releases of the greases and oils can be captured and removed from the crane without spillage occurring such that they can be disposed of in a controlled manner.

71. PIPING OF HYDRAULIC AND LUBRICATION SYSTEMS:

71.1 Where pipe systems carrying hydraulic fluid or lubricants are run through the crane structure, access panels shall be provided for the inspection and maintenance purposes. All surface runs, whether exterior or interior, shall be adequately protected from accidental damage.

PART F: MISCELLANEOUS REQUIREMENTS

72. MACHINERY HOUSE:

72.1 The main hoist, auxiliary hoist, luffing and slewing drive system shall be housed in air conditioned electrical room. The machinery room, HT transformer & switch gear room and the VFD control shall be separate.

72.2 The machinery house shall have two personnel entrances. Each shall provide a completely separate exit route from the machinery house to the quay. Both doors shall be half glazed with wired glass and fitted with locks. Two 10 kg CO2 portable fire extinguishers shall be provided on permanent brackets close to floor level, one at each entrance.

72.3 The machinery house shall be force ventilated through a filtered intake if such a



measure is necessary to maintain ambient temperature within permissible limits. The ventilation system shall be designed to ensure low noise level and for comfort of the technician during maintenance works while the crane is in operation. Air filters shall be easily accessible and readily replaceable.

72.4 A rope reeving winch or similar consideration shall be provided to assist with rope changing. The design and layout shall be such as to facilitate rope changes for each of the rope drives. Electric powered winch to be installed for assisting the changing of wire rope instead of pulling out and winding manually.

72.5 A fenced double trap door shall be provided in the floor for maintenance purposes. An alternative to this could be suitable arrangements for the removing and replacing of machinery items through the roof of the machinery house. The aperture shall be large enough to pass the largest individual item of machinery to quay level.

72.6 Sufficient space shall be provided for a work bench, with MDL executives vice, storage space for lubricants and a cabinet with lock for tools and small electrical spare parts.

72.7 The machinery house shall be provided with electrically operated hoisting arrangement of adequate capacity to handle the material from the ground to the machinery house. The opening size in the machinery house to allow access of biggest size of crane component (gear box, electric motor etc) and the capacity of hoist shall be adequate to hoist and lower these components to and fro from the ground level.

72.8 Adequate space shall be arranged for the maintenance of the equipment installed and exhaust fans shall be provided in the machinery house. Air duct for sufficient air circulation shall be provided if necessary.

73. OPERATORS CABIN:

73.1 The OPERATORs Cabin shall be fully weatherproof and located at the front of the slewing frame at a level that provides the optimum visibility for the OPERATOR. Access shall be from weather and waterproof naturally and artificially lit platform or staircase, not a near vertical ladder. The rake of the staircase shall be such that a man can descend the flight while facing away from the staircase.

73.2 The cab shall comprise a fully enclosed rigid steel framed and clad structure. It shall also be suitably insulated and trimmed inside and fitted with a lockable weatherproof access door positioned to the rear. The minimum clear unobstructed height within the cabin shall be 2.2m above floor level. The minimum clear unobstructed height of the door shall be 2.0m over any cell provided. The floor shall be covered with a suitable non-slip finish capable of easy cleaning out.

73.3 The cabin windows shall all comprise flexibly mounted safety glass and should be positioned so as to provide excellent vision and unobstructed lines of sight ahead, below and to both sides. Any roof or floor glazing installed shall be fitted with a hinged protective grid. All glazing shall preferably be capable of being opened adequately or fully turned for ease of cleaning from the inside of the cabin and should be tinted as necessary to minimise solar gain and provide ultra violet filtering. Any glazing not accessible for cleaning from the inside of the cabin shall be provided with secure external access platforms, walkways and ladders as appropriate. Electrically operated fixed speed wipers shall be provided together with screen washers to all main windows.

73.4 The inside of the cabin shall be shaded from direct sun as far as is operationally reasonable and a separate, false, overhanging canopy roof shall be provided. The cabin shall be air conditioned. The cabin shall also be provided with Wall mounted oscillating fan and also the safety glass should have motorized wiper of sufficient length for removal of fog.

73.5 The OPERATOR's seat shall be comfortable, ergonomically designed and upholstered in



a material suited to the climate. It shall be fully adjustable, fore and aft and for height. The main crane functions shall be operated by means of joystick controllers, switches, buttons etc. as appropriate situated on or in close proximity of the chair arms. A lift up seat, for a driving instructor or second person, shall be provided and fixed to the rear or side walls of the cabin.

73.6 All electrical contractors, relays etc. within the cabin shall be collectively mounted within a single sheet steel enclosure fitted with a locking door. A small document cabinet and work top shall also be provided. A 3kg portable CO2 fire extinguisher shall be mounted in the cabin within easy reach of the OPERATOR.

73.7 A low power fixed radio transceiver and microphone shall be located in the cabin as detailed in Clause 63.

73.8 The cabin shall be provided with an emergency door unless an immediately convenient emergency escape exists adjacent to the existing exit at cabin level.

74. SAFE LOAD INDICATOR AND RADIUS INDICATOR:

74.1 Safe load indicators (HMI) for the main hoist and auxiliary hoist shall be shown in the HMI display fitted in the OPERATOR's cabin providing information on the loads on each hoist. A visual indicator and audible alarm shall be provided to advise once 95% of the designed working load for any hoist has been reached. An audible alarm shall be sounded if 105% of the designed working load is reached

74.2 Control system shall stop movements in case of overload and only allow driving in direction of reducing load. Overload protection shall fulfill minimum performance level c as per ISO 13849-1.

74.3 Luff radius indicator (HMI) shall be provided and shall be of digital display type with fitted in suitable place for easy maintenance. This shall be interconnected with loading of the crane for main hoist and auxiliary hook. Suitable warning and shutdown facility shall be provided to prevent overloading and exceeding limit of radius of the crane. Luff indicating system shall be reliable and rugged construction.

74.4 Accurate device shall be provided to read the exact load (+/- 5%).

74.5 Load indicator shall work in synchronization with radius indicator.

75. EMERGENCY STOPS:

75.1 Emergency stops shall be provided at the following locations on the crane.

- a) at ground level adjacent to the crane access points on the portal
- b) at ground level at the extremities of the long travel bogies
- c) in the OPERATOR cabin
- d) in the machinery house
- e) at the ground travel control station
- f) at the crane power supply isolator.



75.2 Any one of the emergency stops shall be capable of tripping all control circuits.

75.3 The Emergency Stops shall be of robust construction and have yellow bodies and red mushroom heads. When depressed the red mushroom head will not be released except from the OPERATORs Operating Panel. Depression of the red mushroom head will immediately activate an Emergency Stop in all motions. A red light indicating which Emergency Stop was depressed on the OPERATORs Operating Panel to be provided. When the cause of the Emergency Stop being depressed has been investigated and corrected, the OPERATOR may restart his crane using the appropriate security system and start up procedure and release the depressed Red Mushroom Head Emergency Stop. Emergency stop implementations shall fulfill minimum performance level c as per ISO 13849-1.

76. ACCESS PREFERENCES:

76.1 Wherever possible foot access to the crane shall be by stairs rather than ladders. Landings shall be provided to all stairways at not more than 9 meter intervals. For crane access ISO 11660-1/ EN 13586 or equivalent IS standard to be followed.

76.2 All staircases and platforms shall have continuous toe boards, intermediate and upper handrails provided. The intermediate and upper handrail tubes and supporting stanchions shall be purchased from a specialist-approved manufacturer of such systems and designed and installed in conformance with his recommendations.

76.3 The provision of access holes in platforms, walkways and staircases is not permitted for any purpose.

76.4 Ladders shall not be used unless there is no realistic alternative and the Purchaser's prior agreement is obtained. This requirement applies to both access and emergency escape routes. Where ladders are approved, safety hoops commencing at 2.2m meter above the foot of the ladder and continuing to a height of 2.2 m above the top landing shall be provided. Ladders shall be of the single rung type with rungs spaced not more than 230mm apart. Additionally, a swing up safety bar shall be provided at the height of the upper handrail on the adjacent platform. The angle through which a swing up safety bar shall travel shall not exceed 85 degrees.

76.5 Alternative exit routes of walkways, platforms, stairways and ladders, shall be available to enable the OPERATOR and any maintenance personnel escape from the crane cabin and machinery house areas in an emergency.

77. WIND SPEED MONITORING:

77.1 The crane shall be fitted with an anemometer to continually monitor and display to the OPERATOR the 3-second average wind speed. An audible alarm shall be sounded in the OPERATOR's cabin in the event of the wind speed exceeding the maximum allowed for crane operation.

77.2 The alarm shall be repeated by claxon or similar, external to the cabin, such that all personnel on the ground beneath the crane are made aware of the situation.

78. NOTICES AND LABELS:

78.1 Safe working load notices described in shall be prominently displayed on the structure of the crane in both English and Hindi.

78.2 All notices and labels within the OPERATOR's cabin shall be in both English and Hindi.

78.3 Filling points for water, lubricating oils and greases, tank capacities and other similar maintenance instructions shall be in both English and Hindi.



78.4 All equipment manufacturers rating and identification plates shall be in English and Hindi.

78.5 The crane Manufacturer must submit the locations, styles and sizes proposed for all significant notices for approval by the MDL. Notices and labels shall be manufactured from steel, brass or durable plastic. External notices shall be painted and manufacturer's rating plates stamped. General labels shall be engraved from white/black/white sandwich plastic or similar to provide black lettering on a white background. Emergency labels etc. shall be engraved to provide red lettering on a white background. All labels shall be mechanically secured by screws, rivets or similar. Adhesive labels are not permitted.

78.6 Both side walls of the crane machinery house shall be painted with the MDL logo and the following legend in large blue lettering. The precise colour blue to be applied will be selected from a selection of colour swatches provided by the supplier.

78.7 Before dispatch to site for assembly and erection all connecting items, whether mechanical, electrical or structural shall be suitably identified and, where appropriate, also carry orientation marks to prevent miss-assembly. Identification marks shall be positioned such that they will remain visible throughout the assembly or erection process. Small loose items shall either be securely wired to associated parts or bagged. All such items shall be clearly identified. Nuts, bolts and washers shall be bagged and identified by size and material specification.

79. CC TV MONITORING:

79.1 Crane should be equipped with CC TV monitoring system specially in the critical areas Electrical room, operator cabin, machine room and both sides of the LT travel.

PART G: TESTING

80. TESTS AT WORKS:

80.1 Crane components / sub-assembly shall be tested and inspected at various stages during fabrication / manufacturing (prior to erection) by TPEA accompanied with Maintenance executive. Inspection / test during erection and final test shall be done by TPEA & MDL executive jointly.

80.2 The following minimum tests/inspections shall be undertaken at the Supplier's works or have been undertaken by main materials and equipment suppliers to the Supplier. Suitable certification shall be provided in all cases.

80.2.1 Examination of material, its identification and issue of test certificates for compliance with the MDL's requirement,

80.2.2 Checking the dimensions of the component / sub-assemblies / assemblies as per the manufacturers drawings and testing thereof

80.2.3 Physical properties tests in accordance with standards for:

- a) Main structural and high tensile steel plates and sections.
- b) Shafts.
- c) Wire ropes – sample test to destruction.

80.2.4 Magnetic particle inspection on:

- a) All major castings.



b) All major forgings.

80.2.5 Weld Tests and Inspections:

a) for requirements refer Clause 36 Welding above

b) during fabrication

c) all records with respect to welding inspections, tests, defects and the rectification thereof shall be retained by the Supplier until the crane is Ultimately removed from service and demolished.

80.2.6 Functional tests to demonstrate the correct operation of all control and alarm equipment shall be conducted.

80.2.7 The major crane structural components shall, where size permits, be trial assembled within the Supplier's works or, where this is not possible the erection interfaces shall be demonstrated to be compatible, one with another, by use of photogrammetric or similar techniques.

80.2.8 All machinery elements shall be assembled sufficiently to be capable of being tested under no load for proper operation and control of all speeds and directions and that feedback information and interlock functions are also correct.

80.2.9 Any other test as required by the TPEA.

80.3 Following successful testing all components requiring dismantling for transport and shipment shall have all their mating faces etc. marked to assist reassembly and where necessary, realignments ensured by use of doweled locations.

80.4 The MDL and / or TPEA to witness certain of the works / equipment tests. The Supplier shall provide a schedule of all the proposed inspection stages during the manufacture of the crane. The Supplier shall provide ample advance notification of all impending tests to the MDL.

81.COMMISSIONING:

81.1 The commissioning tests shall be conducted by the Supplier's personnel and demonstrate the overall suitability of the crane for the shipbuilding function intended together with proof of specified performance as required in Clause 80 above and amply demonstrating operational reliability.

81.2 The test weight, that a variety of test loads up to the overload test weight can be securely assembled and safely used in all Tests undertaken at the Shipyard and during the Setting to Work period, shall be provided by MDL. However, the fiber slings and shackles of requisite capacity will have to be provided by the Supplier.

81.3 Any breakages or component or equipment failures that arise during commissioning shall be rectified or replaced at the Suppliers cost and without penalty to the overall crane guarantee. All tests associated with the breakage or failure shall be repeated.

82. PERFORMANCE TESTS

82.1 The Supplier shall perform fitness tests of the crane to include functional, load tests, endurance and trial operations type work. After the crane have successfully completed all such tests to MDL's satisfaction a certificate of crane competence will be issued to the MDL including a certificate from a Competent Authority under the Factory Act.



82.2 Upon receipt of the certificate the MDLs representatives and their operators will conduct the performance tests under supervision of TPEA. The performance tests to include, inter alia:

- a) Operation of all emergency stops, interlocks and safety equipment.
- b) Long travel, luff, slew and hoist speed and function tests.
- c) Rated load tests.
- d) Over load test in accordance with design standard requirements.
- e) Noise level checks.
- f) Emulate satisfactory working of the wind speed monitoring and alarm system
- g) Any other requirement of a Competent Authority under the Factory Act

82.3 The Supplier shall provide details of all proposed procedures and methods for each discrete test at the tender stage for discussion. Testing will be undertaken in accordance with the agreed finalized procedures and methods and to the satisfaction of the MDL/TPIA that the results are in accord with the Contract Specification.

83. DURABILITY:

83.1 The crane will be subjected to a durability test after successfully completing all performance tests. Durability shall be proven by subjecting the crane to a period of continuous simulated operation at its maximum designed load. The test shall include representative deployment of the luff and slew motions and the portal long travel drive.

84. SETTING TO WORK:

84.1 Once the crane has successfully completed all formal testing it will be handed over to the MDL so that shipbuilding and operations can begin.

85. CERTIFICATION:

85.1 The Supplier shall supply to the MDL test certificates in accordance with the relevant statutory requirements following completion of all necessary tests.

PART H: MAINTENANCE

86. GENERAL /GUARANTEE WARRANTY:

86.1 The Supplier should have an established service network to rapidly attend to crane breakdowns and repairs during and after the guarantee period. Details are to be included in the Tender Document. A Guarantee against damage or failure due to breakdowns/ defects for a period of 36 months from the date of final acceptance of the crane at MDL site.

86.2 During the Guarantee period of 36 months, after satisfactory acceptance of the crane, the contractor shall perform the periodic maintenance as per maintenance schedule of the equipment. the crane supplier should respond to any notice of defect / malfunction / under performance of any of the crane components within first 48 working hours of such notification from MDL. Also, such defect should be resolved / set right within reasonable period of time. The supplier shall replace or repair the defective/damaged parts at his cost. If any of the spare from initial spares provided with the crane is used by the contractor during the guarantee period, the same shall be replenished within reasonable period.



86.3 The necessary spares, tools, technicians etc., required to attend the breakdown and to set the defect right during guarantee period shall be under Supplier's scope of work.

86.4 A set of frequently required recommended spare parts and consumables during guarantee period shall be kept ready/handy to minimize down time.

86.5 At the Tender submission stage an itemized price listing of the manufacturer's recommended additional spare parts considered necessary to support the crane during the initial 6 years of operation. This listing shall not include consumables except where the Supplier has been unable to identify a source in India. Where this is the case he shall provide full details of such items giving the justification for the Specification used which necessitates the import of the consumable involved.

86.6 To simplify the spares holding and procurement aspects, materials, equipment and components shall be standardized as far as is reasonable within the design of the crane. All spare parts are to be fully interchangeable with the original parts and be manufactured to the same quality and standards.

86.7 All spare parts and any associated special tools shall be suitably boxed and/or preserved to prevent deterioration whilst in storage. All such packaged items shall be clearly labelled in English and Hindi for ease of identification.

87. SPECIALIST TOOLING:

87.1 The Supplier shall supply to the MDL one complete set of special tools and fixtures necessary for the erection, removal, maintenance and subsequent replacement of all assemblies, components, spare parts and consumables including all lifting tackle, lifting beams and handling equipment required to ensure that no item exceeding 25 kg need be manually handled.

87.2 All special tools and fixtures shall be permanently marked as to their function and specific use. Size permitting, they shall all be stowed in secure portable metal tool chests or, if large, wall mounted on shadow boards within a suitably located compartment within the crane structure.

87.3 All necessary lifting equipment comprising slings, shackles, eyebolts etc. necessary for the safe and effective handling of crane components on arrival to site and during erection or to facilitate maintenance shall be provided by the Supplier.

87.4 Fiber Optic repair tool to be provided by supplier.

88. SUBMISSION OF MILESTONE/ACTIVITY-TIME CHART:

88.1 The supplier shall submit a milestone/Activity-time chart to indicate the various project activities and their time line.

88.2 The milestone chart shall establish the indicated delivery/commissioning date for the crane.

89. DOCUMENTS TO BE SUBMITTED IN TECHNICAL BID:

89.1 The supplier shall submit documents as required to establish the eligibility in accordance with tender document.

89.2 A table indicating each clause no. of technical specification and the remarks, such as "noted/ Accepted/ confirmed/ submitted" as may be the case in response to the para be submitted.

89.3 Wherever, the supplier remarks as "submitted", they should indicate the document No, page no, para no etc. to be referred to.



89.4 The supplier shall submit tentative plan for crane erection methodology of individual crane along with the bid documents.

90. PREFERRED MAKE OF MAJOR COMPONENTS:

S No	ITEM	PREFERRED MAKE
1	MOTORS	SIEMENS/ABB/FUJI ELECTRIC/SUMITOMO/YASKAWA/ ALLEN BRADLY/ BHARAT BIJLEE/ALSTOM/CG /KONECRANES
2	DSL SYSTEM AND CURRENT COLLECTORS	VAHLE/STEMMANN TECHNIK /SPEED -O- CONTROL (SOC) / SNT SYSTEMS PVT. LTD / SILVERLINE
3	ACB,MCB,MCCB,EARTH LEAKAGE DEVICES,SWITCHES	SIEMENS/SCHNEIDER/ABB/L&T/ALLEN BRADLY /FUJI /Legrand /G.E / Merlin Gerin / Crompton / Schnider/Kraus Naimer/Elma electronic/Eaton/Phoenix Contact/Stromag/Schmersal/Marquard and Technetix/Theben
4	HT & LT POWER AND CONTROL CABLE	LAPP / NIPPON /FURUKAWA /TRATOS / NEXAN / FUJIKURA / ITLIAN CABLE COMPANY S.P.A /KEI/ ASIAN/ HELUKABEL/ TKD/HELKAMA/IGUS/UNIVERSAL / NICCO / POLYCAB /HAVELLS /GLOSTER / PARAMOUNT/ RPG
5	CONTROL/SIGNAL/COMMUNICATION CABLES FOR CONTROL SYSTEM, INSTRUMENTATION, TELEPHONE,FIRE DETECTION SYSTEM, CAMERA SYSTEM	LAPP/HELUKABEL/ FURUKAWA/ FUJIKURA / ITLIAN CABLE COMPANY S.P.A/HELKAMA / FINOLEX / ASIAN / KEI / POLYCAB / CCI / GLOSTER / UNIVERSAL /LUCENT / AVAYA / AMP / LEGRAND
6	POWER CONTACTORS, RELAYS, TIMERS, LAMPS, BUTTONS	SIEMENS/ABB/SCHNEIDER/ALLEN BRADLY / OMRON /BCH /L&T
7	LIGHTS	PHILIPS/ GE/ CROMPTON/ BAJAJ/ WIPRO/ OSRAM/PHOENIX (USA)/ LUNEX
8	VVVF DRIVES & PLC	ALLEN BRADLEY/ SIEMENS/ FUJI / YASKAWA /ABB /KONECRANES/Schneider
9	LIMIT SWITCHES	KOINO/ SCHNEIDER/ STROMAG/ ABB/ SIEMENS/SAKAMOTO/ YASUKAWA/ SCHMERSAL/OMRON/TURCK/PEPPERL-FUCHS/ SPEED-OCONTROL / KONECRANES / STROMAG / JAYASHREE / SCHMERSAL/ BCH / JAI BALAJI
10	ENCODER	BAUMER/ KUBLER/ SIEMENS/ HUBNER/LEINE & LINDE/OMRON / KONECRANES/P&F/ TR ELECTRONIC/Heidenhain
11	HMI	SHARP/ HONEYWELL/ ALLEN BRADLEY / ABB/ SIEMENS/FUJI/ THOSHIBA / PRO-FACE /SCHNEIDER /OMRON / DELTA /GEFANUC/EATON /MITSUBISHI / HITACHI
12	LOAD CELLS	SHINHAN / MAGTROL / STRAIGHTPOINT USA /ROBWAY/ FUTEK / HONEYWELL / FLINTEC/IPA/SENSY /DINACELL/LAHTIPRECISION/ACME /KONECRANES



13	GEAR BOX	SIEMENS / SEW EURO DRIVE / DAVID BROWN/WOORIM/HYOSUNG/KONE/PIV/KREIS KOTT/SEISHA /KONECRANES / BREVINI / BONFIGLIOLI / ZOLLERN or OEM of crane / Shanti, Elecon , NAW, Rossi make Gear Boxes
14	BRAKES & BRAKE DRUM	SVENDBORG / BCH/ SIBRE/ APEX/ PINTSH BUBENZER/ELECTROMAG/ FUJI/MAYR ELECTRIC/ICAN /KONECRANES / SPEED-O CONTROL / STROMAG / INTORQ / KATEEL
15	WIRE ROPE	TEUFELBERGER / USHA MARTIN/ KISWIRE/ MANHO/ FORT WILLIAM/ V ROPES/ CASAR/DIEPA/ DRAHTSEILWERKE/BHARAT WIREROPES PFEIFER
16	INDUSTRIAL AIR CONDITIONER	TOSHIBA/ CARRIER/ DAIKIN/ MITSUBISHI/ GENERAL/BLUESTAR/LLYOD /SAMSUNG/LG
17	PAINT	JOTUN/HEMPER/ SIGMA/AKZO NOBLE/KCC
18	BUFFER	OLEA/ GANTREX/ KOBAL/ENIDINE / KATEEL / EMCO /LABEN /BUBENZER
19	CAMERA	BOSCH/ HONEYWELL/ PELCO/ FLIR/ SONY/ PANASONIC/KCC
20	FIRE DETECTION SYSTEM	HONEYWELL/ BOSCH/ KIDDE/ NIPPON HAKUYO/CONSELUM MARINE /SCHNEIDER/DAHUA/SATEL
21	ANEMOMETER	YOUNG MARINE/ LILLY & GILLY/THIES/JYOTI /KANA/LAWRENCE & MAYO/PROTO CONTROL/ACO MECHANIC
22	BEARINGS (OF MECHANICAL COMPONENTS)	SKF / FAG / NTN/ KOYO /TIMKEN/ INA/NSK/NTN/SNR/NACHI/ROLLWAY
23	SLEW BEARING	ROTHE-ERDE OF GERMANY, ROBELLO OF U.K., INA OF GERMANY, ROLLIX OF FRANCE / LIEBHERR / IMO/ SKF
24	OIL PUMP	NOP/ REPUTED MAKE (SUBJECT TO MDL APPROVAL)
25	HT BOLTS & FASTNERS	UNBRAKO, BOLT MASTER TVS Fasteners, Hiten Fasteners, Deepak Fasteners
26	ROPE DRUM	REPUTED MAKE (SUBJECT TO MDL APPROVAL) As per design standard (Also Pl refer Sr No.43)
27	WHEELS	REPUTED MAKE (SUBJECT TO MDL APPROVAL) As per design standard (Also Pl refer Sr No.48.7)
28	HOOKS AND PULLEYS	REPUTED MAKE (SUBJECT TO MDL APPROVAL) As per design standard (Also Pl refer Sr No.46)

Note: Makes list for items listed from SI No. 26 to SI No. 28 and those items which are not specifically mentioned in the above table shall be submitted to the MDL and third party inspection agency for approval prior to procurement by the bidder

**91. SPARES:**

Following minimum spares are required to be supplied with the 150/20T ELL Crane:

Electrical spares:

Sr. No.	Description	Quantity
1	VFD for Main Hoist	2 nos
2	VFD for Auxillary Hoist	2 nos
3	Encoder for Main Hoist	2 Set
4	Encoder for Aux Hoist	2 Set
5	Profibus cable/Profinet cable	100 Meter
6	Profibus Slipping	1 nos
7	Rectifier for magnetic disc brake	5 nos.
8	LT Motor with brake unit	1 no.
9	Limit switch for MH, AH, Luffing and LT	4 nos.
10	Aviation light	4 nos.
11	LT Warning Siren	2 nos.
12	PLC Power supply Module	2 nos
13	PLC D/I Module	2 nos
14	PLC D/O Module	2 nos
15	PLC Analog Input Module	2 nos
16	PLC Analog Output Module	2 nos
17	PLC Communication Module	2 nos
18	Sensor: Optical / Proximity	2 nos.
19	SMPS Module 5 Amps	4 nos
20	Emergency Stop Push Button	2 nos.
21	Fiber optic cable	50 meters
22	Fiber Optic connector	10 nos
23	Load indicator and load cell	1 set

Mechanical Spares per Crane

01	Long Travel (LT) Gearboxes	2 nos.
02	LT Drive Wheel assembly with bearings	2 nos.
03	Wire ropes of Main Hoist & Aux Hoist	1 drum of adequate length each
04	Sheave Pulleys with bearings	2 nos.
05	Driven wheels	2 nos.
06	Brake unit /set for Main/Aux/Luffing	1 set each
07	SS sweep wipers	2 sets

Note: The spares are not limited to above.

92. RELATIONSHIPS WITH OTHER CONTRACTORS:

- The Crane Supplier shall afford all reasonable co-operation to other Contractors carrying out other works for MDL in the shipyard. This will include allowing other Contractors all reasonable access required to perform their work and conferring with them regarding connections and interfaces (if any)

93. PROGRESS MEETINGS:

- During site work, the Crane Supplier shall appraise the work duly to Engineer/MDL and have to attend progress meetings on site, weekly unless otherwise approved by the Engineer/MDL, to report on progress and to discuss any issues with the Engineer/MDL. Meetings will be held at a location to be decided by the Engineer/MDL. The Contractor shall arrange for the attendance of any of his staff members as required by the Engineer/MDL. A designated officer who is in charge of the project and authorized to take decision shall attend the meeting. Suggestion of



- improvements/instructions of the Engineer within the scope of project shall be implemented by the crane supplier duly
2. The Crane Supplier may be required by the Engineer/MDL to attend other meetings, as necessary

94.SCHEDULE:

94.1 Crane Supplier may take notice that the crane is required for MDL SSA workshop jetty. The crane supplier shall understand the requirement of completion and shall duly intimate MDL regarding the progress of proceedings on a reasonable timeframe. The supplier shall choose reliable sub-suppliers meticulously to match the schedule of 18 months. Supplier shall ensure compliances of all applicable procedures, rules, regulations for ensuring the safety and protection of men and materials in all respect and ensure seamless safe working procedures at MDL site. The split up of the schedule is stipulated below:

S No	Activity	Time lines
1	Approval of Design, GA (General Arrangement) Drawings of Crane and QAP (Quality Assurance Plan), etc. by TPEA/MDL.	Within 3 months after issue of PO
2	On submission of the complete crane detailed assembly drawings, welding procedures, welding plan and NDT plan, fabrication methodology, testing methodology, final technical specifications, etc.	Within 4 months after issue of PO
3	Shipment of materials/items as per mutually agreed material delivery schedule	Within 15 months after issue of PO
4	Completion of Erection/Testing, commissioning, Approvals and handing over to MDL.	18 months after issue of PO

STAGE PAYMENT:

- i. No advance will be paid in any manner against the contract.
- ii. Stage payments will be made as a percentage of LUMP SUM Base Amount quoted by the Firm and approved by MDL in accordance with the following schedule:

Stage No.	Description	% of Base Price
1	Approval of Design, GA (General Arrangement) Drawings of Crane and QAP (Quality Assurance Plan), etc. by TPEA/MDL and receipt of Bank Guarantee for an equivalent amount valid till the completion of stage 5.	10
2	On submission of the complete crane detailed assembly drawings, welding procedures, welding plan and NDT plan, fabrication methodology, testing methodology, final technical specifications, etc and receipt of Bank Guarantee for an equivalent amount valid till the completion of stage 5.	5
3	On placement of purchase orders for major mechanical, electrical equipment & Structural steel and satisfactory verification of these purchase orders vis-a-vis requirement as per detailed design, by TPEA/MDL and receipt of Bank Guarantee for an equivalent amount valid till completion of stage 5.	15



4	On Receipt of major structural items viz; Bogies, Portal, post, frames, etc at MDL site along with all supporting documents, Test Certificates, etc. & due satisfactory inspection by TPEA and receipt of Bank Guarantee for an equivalent amount valid till completion of stage 5. (Payment will be done progressively on prorata basis)	20
5	On Receipt of Electrical & Mechanical equipment's & machineries, drives & control system items, etc all complete, at MDL site along with all supporting documents, Test Certificates, etc. & due satisfactory inspection by TPEA. (Payment will be done progressively on prorata basis)	20
6	On Completion of erection of complete crane duly inspected & certified by TPEA.	20
7	On successful completion Testing & commissioning of the crane with due inspection & certification and satisfactory taking over by MDL, along with the list of recommended critical spare parts, tools & tackles kit, etc	10

NOTE: - i) In case of delays in completion of the milestones at sr no 5, the Bank Guarantee submitted by the contractor will have to be extended accordingly.

**Enclosure-22****HINDRANCE REGISTER**

1. Name of the Work:
2. Contract Agreement No. :
3. Date of Commencement:
4. Stipulated Date of Completion:
5. Extended Date of Completion, if applicable:
6. Name of the Supplier / Contractor:

Sr. No.	Nature of Hindrance	Activity of work affected	Date of notification by contractor	Name & Signature		Date of removal of hindrance	Name & Signature	
				Contractors Representative	Site Executive of MDL		Contractors Representative	Site Executive of MDL

**Enclosure-23**

**To,
OTS DEPARTMENT**

OTS-TS SECTION

MAZAGON DOCK SHIPBUILDERS LIMITED.

MDL Tender No. 1900000228

Mazagon Dock Shipbuilders Ltd.

Loss of Pass - Contractor/Vendors.

1. Penalties will be imposed towards loss of passes/ non-renewal of passes apart from warning as deemed necessary for contractors, vendors & their workers. This is in addition to cost of the pass prescribed from time to time.

Loss:

- | | |
|------------------|---------------------------------------|
| a) First loss – | Rs. 250/- |
| b) Second loss - | Rs. 500/- |
| c) Third loss - | Rs. 1000/- and permanent cancellation |

Non-Renewal:

- | | |
|----------------------|-----------------------------|
| a) Upto 4 days- | No Penalty |
| b) 5-10 days- | Rs. 5/- per day |
| c) 11 days & beyond- | Rs. 50/- + Rs. 10/- per day |

2. **Procedure for duplicate pass due to loss:**

The loss has to be immediately reported to the concern Police Station. Thereafter a statement narrating circumstances of the loss, countersigned by the contractor and EIC shall be submitted to security office along with the prescribed penalty.



Enclosure-24



माझगांव डॉक शिपबिल्डर्स लिमिटेड

बाह्यस्रोत-तकनीकी सेवाएँ विभाग

INVOICE CERTIFICATION

HOD (OTS)

Ref No.:

Date:

Firm's Name: M/s. RA Bill No:

A. Contract Details:

- Subject: _____
- MDL P.O. No: _____ dated: _____ Value: _____
- PO Original Delivery date: _____ Extended Delivery Date (if any): _____
- Erector All Risk Policy vide No. _____ date.: _____ for an amount of Rs. _____ Valid till dated _____
- Performance Bank Guarantee/ Security Deposit vide No. _____ dated: _____ Rs. _____ Valid till _____
- Stamp Duty Paid vide Challan No. _____ Rs. _____

B: Invoice Details:

- Firms Invoice No: _____ dated _____
- Period of Work: From _____ To _____

S.N.	Description	Amount in Rs.
1.	RA Bill Amount	
2.	Price Variation Amount	
3.	Total	

C. Certification Details:

The following have been appended along with the GST Tax Invoice:

- MDL service entry sheets duly signed attached : Yes/ Not Applicable
Service Entry Sheet No. _____
EMB No. _____
- Consultant's Certificate (if applicable) : Yes/ Not Applicable
Reference No. _____ Dated: _____
- E-invoice/Vendor's Self Declaration: Yes/ Not Applicable
- No Claim Certificate (applicable for Final Invoice only) : Yes/ Not Applicable
- Vendor rating (applicable for Final Invoice only): Yes/ Not Applicable
- Actual Local Content Certificate (applicable for Final Invoice only) : Yes/Not Applicable
- Price indices & Price Variation sheet (if price variation is included) : Yes/ Not Applicable
- Bank Guarantee against Waterproofing/ Leakages (applicable for Final Invoice only) :
Yes/ Not Applicable
- The following deductions to be made from the invoice:
 - Liquidated Damages as per purchase order : To be levied/Not Applicable Details of LD to be levied (if applicable): _____
 - Other Deductions (if any): _____
 - Release of Provisional Retained Amount (if any): _____

Engineer in Charge / HOD (Comm)

Cnsultant

Contractor

(Sign & Stamp with date)

(Name, Sign & Stamp with Date)

(Name, Sign & Stamp with Date)



Enclosure-25

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

MDL Tender No. 1900000228

EXTRACT OF PROVISIONS OF THE OFFICIAL SECRETS ACT, 1923

SECTION 2(B) ; “PROHIBITED PLACE”

It is defined as the place of any work of Defence Dockyard and other so belonging or occupied and used for the purpose of building, repairing, making or storing any ammunitions of war.

For the purpose of the above definition, sketch includes any photograph or other mode of representing any place or thing.

SECTION 3 : “PENALTIES FOR SPYING”

If any per unlawfully -

- a) approaches, inspects, passes over or is in the vicinity of any clear place; or
- b) make any sketches intended to be directly or indirectly useful to an enemy; or
- c) obtains, collects, records or communicates to any other person any secret official code.

Shall be liable for imprisonment of 14 years in case of Defence Installation.

SECTION 4 : “COMMUNICATION WITH FOREIGN AGENTS”

If Any person has been in communication with or attempted to communicate with foreign agents regarding the vital information of any “PROHIBITED PLACE” would be guilty of violating the provisions of this Act.

SECTION 5 : “WRONGFUL COMMUNICATION OF INFORMATION”

If any person having in his possession or control any official document;

- a) Willfully communicates to any person, other than a person, who is authorised to communicate it.
- b) Used the information in his possession for the benefit of any foreign power.
- c) Retain in his possession when he has no power to retain it
- d) Fails to take reasonable care of it.

Shall be guilty of an offence under this Act.

SECTION 6 : “UNAUTHORISED USE OF UNIFORMS”

If any person for the purpose of gaining admission or of assisting any other person to gain admission to a “PROHIBITED PLACE” wears uniforms without lawful authority shall be guilty of offence under this Section.

**SECTION 7 : “INTERFERING WITH OFFICERS OF POLICE”**

No person in the vicinity of any “PROHIBITED PLACE” shall obstruct any Police Officer engaged on guard, sentry or similar duty. If any person moves in the provisions of this section, shall be punishable with imprisonment, which may extend up to 3 years.

SECTION 8 : “DUTY OF GIVING INFORMATION”

It shall be duty of every person to give on demand to a superintendent of Police or any other Police Officer not below the rank of Inspector, any information in his power relating to an offence under this Act.

If any person fails to give such information, shall be punishable with imprisonment to 3 years or fine or with both.

SECTION 9 : “INCITEMENT”

Any person who attempts to commit or debate the commission of an offence under this Act shall be punishable with the same punishment and be liable to be proceeded against in the same manner as if he had committed such offence.

SECTION 10 : “PENALTY FOR HARBOURING SPIES”

If any person whom he knows or has reasonable grounds for supposing to be person who is about to commit or who has committed offence under this Act shall be guilty of offence under this Section.

SECTION 11 : “SEARCH WARRANTS”

If a presidency Magistrate, Magistrate First Class or Sub-Divisional magistrate is satisfied with the information that there is reasonable ground for suspecting that an offence under this Act has been or is about to be committed, he may grant search warrant to any Police Officer to enter at any time any premises to force to search premises or the places.

**Enclosure-26**

**To,
OTS-TS SECTION
OTS DEPARTMENT
MAZAGON DOCK SHIPBUILDERS LIMITED.**

MDL Tender No. 1900000228

CHECKLIST OF SUBMITTALS ATTACHED ALONGWITH ONLINE TECHNICAL BID
TENDER ENQUIRY No. 1900000228

Bidder to indicate Submitted/ Not submitted and Yes / No under relevant Column and Reasons for Non submissions if any

Sl No	Submittals (Scanned Copy)	Whether Submitted/ Not Submitted/ Not Applicable	Bidder to indicate the Reasons below for Non Submissions if any, or if they have indicated "NO" under relevant columns
1	Enclosure-1 viz Form of undertaking	Yes/ No	
2	Enclosure-2 viz TEF Acceptance Form	Yes/ No	
3	Enclosure-3 viz General Construction Work	Yes/ No	
4	Enclosure-4 viz GCC Acceptance Form	Yes/ No	
5	Enclosure-5 viz Deviation Form	Yes/ No	
6	CA certified Average Audited Annual financial turnover of Past 03 years ending 31 March 2024		
7	Audit certified Balance Sheets of Past 03 years ending 31 March 2024		
8	Audit certified Profit/Loss Accounts of 03 years ending 31 March 2024		
9	a. Enclosure-6 & 7 viz Bidding Capacity		
	b. Whether Enclosure-6 Certified by CA	Yes/ No	
	c. Whether Enclosure 7 Certified by CA	Yes/ No	
	d. Whether PO Copies in respect of Projects mentioned in Enclosure 7 submitted		
10	Enclosure-8 viz Exp in Similar Projects		
	a. Work Orders along with Scope of work and BOQ		
	b. Completion Certificates issued / authenticated by Client		
	c. TDS Copy in case of Work Completion Certificate issued by Private firm		



Sl No	Submittals (Scanned Copy)	Whether Submitted/ Not Submitted/ Not Applicable	Bidder to indicate the Reasons below for Non Submissions if any, or if they have indicated "NO" under relevant columns
11	Company Profile		
12	i) Enclosure-10(B) viz. Declaration certificate for Local Content		
	a. Whether Tender Item Sl No indicated at Col I of Para (d) of Enclosure	Yes/ No	
	b. Whether Local Content Percentage indicated at Col II of Para (d) of Enclosure	Yes/ No	
	c. Whether Location of Value addition indicated at Col III of Para (d) of Enclosure	Yes/ No	
	d. Whether Enclosure-10(B) viz. Declaration Certificate for Local Content has been signed by Authorized Signatory as indicated at Tender Clause No. 40.4(i)	Yes/ No	
	ii) Enclosure-10(E) viz Declaration in respect of restriction under Rule 144 (xi) of the General Financial Rules (GFRs), 2017	Yes/ No	
	iii) Enclosure-10(F) viz Declaration in respect of of debarred under Public Procurement Policy (PPP) Make In India (MII) order 2017	Yes/ No	
13	Enclosure-11 viz Declaration for Banned or delisted Tenderer	Yes/ No	
14	Enclosure-15 viz EMD Format	Yes/ No	
15	Enclosure-13 - Integrity Pact	Yes/ No	
16	a. Enclosure-14 viz RTGS Form	Yes/ No	
	b. Whether RTGS form is duly authenticated by any Bank	Yes/ No	
17	a. Solvency Certificate	Yes/ No	
	b. Whether Solvency Certificate is issued within 1 Year from Tender date	Yes/ No	
	c. Whether Solvency is issued by a Scheduled Commercial (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-operative banks or Regional Rural Banks).	Yes/ No	
18	GST Registration Certificate	Yes/ No	
19	PAN CARD	Yes/ No	
20	a. Shop & Establishment Registration Certificate or Certificate of Incorporation	Yes/ No	



S1 No	Submittals (Scanned Copy)	Whether Submitted/ Not Submitted/ Not Applicable	Bidder to indicate the Reasons below for Non Submissions if any, or if they have indicated "NO" under relevant columns
	from Registrar of Companies or Registrar of firms registration certificate from local body/Factory license.		
	b. Whether Shop and Establishment Certificate is valid as on date of submission	Yes/ No	
21	Power of Attorney	Yes/ No	
22	Corrigendum, if any	Yes/ No	
23	Enclosure-29-Declaration in respect of Conflict of Interest among Bidders/ Agents	Yes/ No	
24	Document related to Working Capital	Yes/ No	
25	Bidder have valid ESIC code as per ESIC act and PF code	Yes/ No	

The Bidder hereby declares that in case any of the above submittals are **not submitted/ not appended** along with the tender bid or the bidder have indicated "**No**" against any of the above submittals, MDL reserves the right to disqualify their bid for incomplete submission of the documents without assigning any reasons. The bidder shall be responsible for the incompleteness of their bid.

SIGNATURE _____

NAME _____

DESIGNATION _____

COMPANY SEAL

COMPANY _____

DATE _____



Enclosure-27

Address Label

Please cut & Affix Address label given below on the envelope for sending EMD and Integrity Pact

Sub: Design, Manufacturing, Supply, Erection, Installation, Testing, and Commissioning of 01 no 150/20T Level Luffing (LL) Jib Crane at Alcock Yard, MDL.

Ref: MDL Tender No. 1900000228

EMD & INTEGRITY PACT

To,

**Head of Department (OTS),
OTS Department,
OTS-TS Section
6th Floor, Service Block Bldg., NY.
Mazagon Dock Shipbuilders Limited,
Dock Yard Road, Mumbai – 400010.**

From



Enclosure-28

माझगांव डॉक शिपबिल्डर्स लिमिटेड

तकनीकी सेवाएँ विभाग

Certification for Disposal of Scrap/Debris

Sub: Design, Manufacturing, Supply, Erection, Installation, Testing, and Commissioning of 01 no 150/20T Level Luffing (LL) Jib Crane at Alcock Yard, MDL.

Ref: MDL Tender No. 1900000228

RA NO.:

This is to certify that there is no accumulation of scrap/debris at site in sizable quantum, in respect of the works carried out for the subject work, as on date.

The scrap/debris generated from the above work is disposed off as per extant procedure.

Engineer in Charge

(Name, Sign & Stamp with date)

Contractor

(Name, Sign & Stamp with Date)



MDL Tender No. 1900000228

Enclosure-29**Declaration in respect of Conflict of Interest among Bidders/ Agents**

We, hereby, declare that we do not have Conflict of Interest with other Bidders. We shall be disqualified if found having conflict of interest with other bidders.

We may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) We have controlling partner(s) in common; or*
- b) We received or have received any direct or indirect subsidy/ financial stake from any of them; or*
- c) We have the same legal representative/ agent for purpose of this bid; or*
- d) We have relationship with each other, directly or through common parties, that puts us in a position to have access to information about or influence on the bid of another Bidder; or*
- e) We participate in more than one bid in this bidding process. Participation by us in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid.*
- f) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/ management, only one unit should quote. Similar restrictions would apply to closely related sister companies. We must proactively declare such sister/ common business/ management units in same/ similar line of business.*

SIGNATURE: _____**DATE: _____****Seal / Stamp of Bidder**



**PROFORMA OF UNCONDITIONAL AND IRREVOCABLE INSURANCE SURETY
BOND FOR BID BOND / EMD**

(On Non-Judicial stamp paper of value Rs. 500/-. However, the value of stamp paper to be confirmed from Legal Department, MDL.)

Ref. No.

Insurance Surety Bond No.

Dated:

1. IN CONSIDERATION OF MAZAGON DOCK SHIPBUILDERS LIMITED, a company incorporated under the Companies Act 1956 and having its registered office at Dockyard Road, Mumbai 400010 (hereinafter referred to as the "the Company" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) having agreed to accept the Earnest Money Deposit (EMD) of Rs------(Rupees-----only) in the form of an unconditional and irrevocable Insurance Surety Bond (ISB) from Messers ----- a partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at ----- (hereinafter called "the tenderer" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) for participating in the Tender no. dated (hereinafter called "the tender" which expression shall include any amendments/alterations to "the tender" issued by "the Company") for the supply, delivery at site, installation and commissioning of certain equipment, item/services/civil works etc., We, ----- Surety Insurer having office at ----- (hereinafter referred to as "the Surety" which expression shall include its successors and assigns) hereby agree to pay to the Company without any demur on first demand an amount not exceeding Rs. (Rupees only) against any loss or damage, costs, charges and expenses caused to or suffered by the Company by reason of non-performance and non-fulfilment or for any breach on the part of the tenderer of any of the terms and conditions of the said tender.

2. We, ----- the Surety further agree that the Company shall be sole judge whether the said tenderer has failed to perform or fulfil the said tender in terms thereof or committed breach of any terms and conditions of the tender the extent of loss, damage, cost, charges and expenses suffered or incurred or would be suffered or incurred by the Company on account thereof and we waive in the favour of the Company all the rights and defences to which we as sureties may be entitled to.

3. We, ----- the Surety further agree that the amount demanded by the Company as such shall be final and binding on the Surety as to the Surety's liability to pay and the amount demanded and the Surety undertake to pay the Company the amount so demanded on first demand and without any demur notwithstanding any dispute raised by the tenderer or any suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator relating thereto, our liability under this Bond being absolute and unconditional.

4. We, ----- the Surety further agree with the Company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said tender/or to extend



time of performance by the tenderer from time to time or to postpone for any time to time any of the powers exercisable by the Company against the tenderer and to forbear to enforce any of the terms and conditions relating to the tender and we shall not be relieved from our liability by reason of any such variation or extension being granted to the tenderer or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the tenderer or by any such matter or things whatsoever which under the law relating to sureties would have the effect of relieving us.

5. We, the Surety further undertake not to revoke this Bond during its currency except with the previous consent of the Company in writing.

6. We, Surety also agree that the Surety's liability under this Bond shall not be affected by any change in the constitution of the tenderer or dissolution or winding up of the business of the tenderer.

7. Notwithstanding anything contained herein above:

- (i) Our liability under this Bond shall not exceed Rs.....
- (ii) This Surety Bond shall be valid upto and including; and
- (iii) We are liable to pay the Bond amount or any part thereof under this Surety only and only if you serve upon us a written claim or demand on or before(validity + ---weeks from the date of expiry of this Bond).

8. This Bond shall be governed by Indian laws and the Courts at Mumbai, India shall have the exclusive jurisdiction.

IN WITNESS WHEREOF the Surety has executed this document on this..... day of

For

(Signature of a person authorised to sign on behalf of "the Surety")



**PROFORMA OF UNCONDITIONAL AND IRREVOCABLE INSURANCE SURETY
BOND FOR PERFORMANCE SECURITY**

(ILLUSTRATIVE FORMAT)

(On Non-Judicial stamp paper of value Rs. 500/-. However, the value of stamp paper to be confirmed from Legal Department, MDL.)

1. IN CONSIDERATION OF MAZAGON DOCK SHIPBUILDERS LIMITED, a company incorporated under the Companies Act 1956 and having its registered office at Dockyard Road, Mumbai 400010 (hereinafter referred to as the "the Purchaser" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) having placed an order on Messers a partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at(hereinafter called " the Contractor/ Supplier" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) vide order No..... dated..... (hereinafter called "the order" which expression shall include any amendments/alterations to "the order" issued by "the Purchaser") for the supply , delivery at site, installation and commissioning of certain equipment, item/services/civil works etc. as stated in the said Order and the Purchaser having agreed with the Contractor/Supplier to accept an unconditional and irrevocable Insurance Surety Bond in lieu of Performance Security payable under the said order for the fulfillment and performance of the said order, We, Surety Insurer having office at (hereinafter referred to as "the Surety" which expression shall includes its successors and assigns) hereby agree to pay to the Purchaser without any demur on first demand an amount not exceeding Rs..... (Rupees.....only) being 5% (10% in case of Capital Procurement) of the order value against any loss or damage, costs, charges and expenses caused to or suffered by the Purchaser by reason of non performance and non-fulfillment or for any breach on the part of the Contractor / Supplier of any of the terms and conditions of the said order.

2. We,the Surety further agree that the Purchaser shall be sole judge whether the said Contractor/Supplier has failed to perform or fulfil the said order in terms thereof or committed breach of any terms and conditions of the order and the extent of loss, damage, cost, charges and expenses suffered or incurred or would be suffered or incurred by the Purchaser on account thereof and we waive in the favour of the Purchaser all the rights and defences to which we as surety may be entitled to.

3. We, the Surety further agree that the amount demanded by the Purchaser as such shall be final and binding on the Surety as to the Surety's liability to pay and the amount demanded and the Surety undertake to pay the Purchaser the amount so demanded on first demand and without any demur notwithstanding any dispute raised by the Contractor/Supplier or any suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator relating thereto, our liability under this Bond being absolute and unconditional.

4. We, the Surety further agree with the Purchaser that the Purchaser shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said order/or to extend



time of performance by the Supplier from time to time or to postpone for any time to time any of the powers exercisable by the Purchaser against the Contractor/ Supplier and to forbear to enforce any of the terms and conditions relating to the order and we shall not be relieved from our liability by reason of any such variation or extension being granted to the Contractor/ Supplier or for any forbearance, act or omission on the part of the Purchaser or any indulgence by the Purchaser to the Contractor/Supplier or by any such matter or things whatsoever which under the law relating to sureties would have the effect of relieving us.

5. We, the Surety further undertake not to revoke this Bond during its currency except with the previous consent of the Purchaser in writing.

6. We, the Surety also agree that the Surety's liability under this Bond shall not be affected by any change in the constitution of the Contractor / Supplier or dissolution or winding up of the business of the contractor/ supplier.

7. Notwithstanding anything contained herein above:

- (i) Our liability under this Bond shall not exceed Rs.....
- (ii) This Surety Bond shall be valid upto and including; and
- (iii) We are liable to pay the Bond amount or any part thereof under this Surety Bond only and only if you serve upon us a written claim or demand on or before(validity + 4 weeks from the date of expiry of this Bond).

8. This Bond shall be governed by Indian laws and the Courts at Mumbai, India shall have the exclusive jurisdiction.

IN WITNESS WHEREOF the Surety has executed this document on this.....day of

For Surety
(by its constituted attorney)
(Signature of a person authorised
to sign on behalf of "the Surety")