# Appel d'offre 2022\_003\_TECH\_LCT RTG NDT

# TERMS OF REFERENCES FOR THE SERVICE OF NON-DESTRUCTIVE TEST (NDT) OF RTG CRANES

#### Client:

**LOME CONTAINER TERMINAL SA** 

**Publishing Department:** 

Technical department

#### Client's official name and address:

LOME CONTAINER TERMINAL Rachid BAHO

**Chief Executive Officer** 

Lomé Container Terminal SA, Bd du Mono, rond-point Foyer des Marins Zone Portuaire, 09BP9103, Lomé - Togo

Téléphone: +228 22537000 or +228 22537025

#### 1- Purpose of the tender:

Lomé Container Terminal SA is in charge of the construction and operation of a container terminal at the Port of Lomé.

LCT intends to seek the services of an approved service provider who has good experience in Performing structural inspection and Non-Destructive Test (NDT) for Rubber Tired Gantry Cranes (RTG), as per the requirement of the crane manufacturer KONECRANES.

# 2- Scope of Work:

- A. Work includes, but is not limited to, providing Professional Engineering Inspection Services required to perform STRUCTURAL inspection services for twenty-two (22) Rubber Tire Gantry cranes (RTG).
- B. As a minimum the scope of work shall include:
  - Structural inspection of welded, pinned, and bolted joints per the Crane Manufacturers published inspection recommendations
  - Inspection for Fatigue cracks via Visual, Magnetic particle, and Ultrasonic tests
  - Inspection of bolted joint via visual, and/or bolt torque
  - Inspection for corrosion
  - Provide an inspection report, detailed with photos.
- C. Contractor shall be responsible for coordinating all work to be performed under this project with the Technical Manager, Crane Manager and Tech Planning Manager.

- D. Contractor shall notify the Managers prior to completion of each job to allow for adequate time for inspection of contractor's work.
- E. Contractor shall have a minimum of five (10) years' experience with design, installation, inspection, commissioning or repair of container cranes. The Contractor shall be familiar with Kone cranes Rubber Tire Gantry Cranes inspection and repair procedures. The contractor shall employ a Professional Engineer, proficient in Mechanical and Structural Engineering. The licensed Engineer shall be the primary inspector during this contracted inspection.
- F. Contractor's bid shall be predicated upon the work being completed during daylight hours at a straight time rate. All work to be billed at an Overtime rate shall be pre-approved by the Technical Manager.
- G. LCT can provide a manlift for the project, and we can provide technicians to assist during this project. However, contractor has to provide an optional cost for manlift rental per day, in case LCT manlift was out of service for long period, for not to hinder the project.
- H. The contractor has to provide painters and welders, for the job required before and after NDT. The contractor has to provide valid certificate for each welder.

#### 3- Technical Requirements:

The structural inspection will be performed in accordance with Kone Cranes Operation & Maintenance Manuals for a 5-year inspection with the following exceptions/additions listed below. The bidder can ask for the structure inspection manual of manufacturer Konecranes after sending an email to <a href="mailto:babboud@lct-togo.com">babboud@lct-togo.com</a> and <a href="mailto:omilitello@lct-togo.com">omilitello@lct-togo.com</a> specifying its interest for this document to submit his offer.

#### A. Bolt torque:

- 100% of all structural bolts including pin adjustment and pin retention bolts must be torqued with a calibrated torque wrench. Certificate must be provided which should be less than year.
- Bolts that have been replaced shall require the Inspection Engineer to inspect the torque tools, methods, and measurements to ensure compliance with Kone's specifications.
- Lock tabs must be re-staked to the bolt when torqueing is complete.
- All torqued bolts must be marked with a red paint pen when complete.
- Stripped or frozen bolts will be marked on the appropriate drawings, and the Manager of Mechanical Maintenance notified when found.

### B. Welded joints

- After NDT, joints must be returned to the original paint specifications.
- If rust was present in the joint prior to inspection, the painters shall use a needle gun to clean the area prior to painting.

#### C. Bolted flange connections

- 100% of the bolts on each bolted flange to be torqued to specifications, per the crane manufacturer's instructions.
- Any suspect bolts must be replaced by original KONECRANES bolts, nuts, and washers.

#### D. Internal structural inspection:

- All accessible internal structures shall be visually inspected
- Internal areas noted in Kone Cranes' inspection procedure to be NDT tested shall be done at the time of the visual inspection.
- The inspector shall provide recommendations for additional inspection procedures.

#### E. Trolley Rails

- Prior to inspection, the trolley rail welded joint should be cleaned to ensure a proper inspection
- Any suspect areas, at a minimum should be inspected by using dye penetrant
- Excessive wear on the rail shall be noted by the distance from the trolley park end of the rail and length x width x depth of the worn/damaged area compared to Kone drawings for the rail.
- Note wear pattern on the trolley rail.

#### F. Trolley/Cab

- Prior to inspection, the trolley inspection areas should be cleaned to ensure a proper inspection
- Visually Inspect the trolley wheel condition and alignment
- The cab safety chains and mounting hardware shall thoroughly be inspected.

#### 4- Documentation

#### At the start of the project

The service provider will submit a retention bond representing 5% of its contract. This amount will be constituted gradually when the work accounts are introduced.

The service provider will provide a performance bond guarantee representing 5% of the amount of its contract. The release of this deposit will only be given when, 12 months after the final acceptance of the work carried out, the proper functioning of the equipment is attested.

#### 5- Presentation of the tenderers' offers:

#### • Document 01:

Provide a technical proposal including the work methodology, the list of equipment to be used, the organization chart of the personnel in charge of the work, the CV of the supervisor of the service provider's team;

#### Document 02 :

The price offered must be detailed as follows:

- Price of service per crane
- Time and duration required per crane, and total project
- Price of travel tickets, accommodation of personnel on the territory of Togo

#### • <u>Document 03</u>: Legal documents to be provided for the BID

In the framework of this tender, the bidder must submit the following document:

- o An updated Tax Registration Card.
- An updated Tax Clearance Certificate.
- An updated social security clearance certificate.
- The M0, M2, M2 Bis versions of the company registry certificate (RCCM) updated on the date of submission of the offer.
- The K-bis version of the company registry (RCCM) updated on the date of submission of the offer and tracing in a detailed and accurate way all the changes occurred during the life of the contractor (the contractor will be required to regularly update LCT with of all changes (company name, registered office, capital, transformation, dissolution, liquidation, etc.) occurring during the validity of the contract, by transmission of a new K-bis version of the company)
- Authorization, licenses and approvals required to carry the activities
- The registration of the contractor and its employees to be assigned to LCT's activities at the Social Security Contributions (CNSS). Compliance checks may be carried out by LCT as part of compliance with labor and social security standards.
- Employment contract of each employee, subscription of a health insurance coverage for each employee and payment of a salary higher or equal to the legal minimum wage (SMIG). Compliance checks may be carried out by LCT as part of compliance with labor and social security standards.
- An updated Economic Operator Card
- Evidence of staff ability to provide services, including a CV of the person responsible (controller/supervisor) for the services to be provided to LCT.
- Liability insurance to be subscribed by the contractor

Main terms of financing and payment: regular payment from the customer LCT.

The price proposals will be entirely written in English.

Currency unit used: XOF or USD or EURO

Duration of the contract or deadline for execution: To be defined in the proposal offer

**Installation visit date:** on request

Deadline for receipt of tenders: 09/12/2022

Provisional start date of services (supplies/services): 09/01/2023

#### Address from which technical information can be obtained:

M. Bernard ABBOUD Technical Manager Lomé Container Terminal SA, Boulevard du Mono, Zone Portuaire, 09BP9103, Lomé - Togo

Téléphone: +228 22 53 70 00 Mobile: +228 79 60 35 91 Email: babboud@lct-togo.com

M. Olivier MILITELLO Purchase Manager Lomé Container Terminal SA, Boulevard du Mono, Zone Portuaire,

09BP9103, Lomé - Togo

Téléphone: +228 22 53 70 00 Mobile: +228 98 83 82 21 Email: omilitello@lct-togo.com

# Address to which tenders / applications / requests to participate must be sent:

Bids must be sent by e-mail to <a href="mailto:tender@lct-togo.com">tender@lct-togo.com</a> .

Technical department
Purchasing Service Office
Workshop building

Technical department Lomé Container Terminal SA