Załącznik nr 5

Specyfikacja Techniczna (Technical Specification)

Postępowania nr EU/40/RTG SPR/ZZ/2025 o udzielenie zamówienia w trybie przetargu nieograniczonego na dostawę

4 sztuki Chwytnia Kontenerowa RTG

w ramach projektu pt:

„Wyposażenie terminalu intermodalnego BCT w nowoczesne urządzenia przeładunkowe „

Signature Not Verified

Digitally signed by Adam Kaliszewski
Date: 2025.11.03 13:28:21 CET

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Data: 2025.11.03 14:45:29 CET

Baltic Container Terminal Ltd.

Technical Specification for RTG Electrical Spreader Four(4) pcs

Approved by	Head of Engineering
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RTG ELECTRICAL SPREADER TECHNICAL SPECIFICATION – OVERVIEW

PROJECT

Supply of the following equipment defined within the Technical Specification:
Four (4) RTG Electrical Single Spreaders.

Main functions of the spreader:

- Spreader mounted to the RTG crane head block by twistlocks
- Possibility of handling 20" and 40" sea containers

Purchase of compatible spreader for RTG crane presently use on BCT RTG's.
We will provide detailed information about the spreader currently in use during the questions and answers during the tender.

CAPACITY

Rated load	41 MT
Lifting lugs main beam	min. 4 x 10 MT

LOAD CLASSIFICATION

Number of operating cycles	U8
Spectrum load factor	Q3

OPERATING MOVEMENTS

Telescopic spreader	20' to 40'

ELECTRICAL SYSTEMS

Main Voltage	400V, 50Hz
Control Voltage	24V
Signal lights	LED type
Spreader monitoring	On-board and remote

FEATURES

Fixed Guide arms	4 pcs
Central auto lubrication system	yes

SITE CONDITIONS

Ambient Temperature	Range -25°C to +45°C
Humidity	Up to 95%

DEFECT LIABILITY PERIODS (DLP)

Entire & accessories after taking over	2 Years
Structure	3 Years
Components repaired during DLP	1 Year or balance of DLP
Software upgrades	Throughout DLP
Paint	3 Years
Galvanizing	3 Years

OTHERS

General arrangement drawing	yes
Operator manual in Polish and English	1 copies + electronic version
Maintenance manual in Polish and English	1 copies + electronic version
Spare parts catalogue in English	1 copies + electronic version
Training for engineers on side	yes

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1 SPREADER TECHNICAL SPECIFICATION

GENERAL TECHNICAL SPECIFICATION

1.1 MATERIALS

1.1.1 Materials used in the spreader shall be new and of the best quality, suitable for the duty.

1.1.2 Materials shall be free from flaws. All castings shall be smooth, sharp and free from blowholes, with ample fillets, and correctly centralized cores. All structural sections and plate shall be free from scale.

1.2 WORKMANSHIP

1.2.1 Workmanship shall be of the highest standard
All plates, sections, etc. shall be straightened or curved as may be required by pressure and not by hammering.

1.2.2 Burrs on all material shall be removed before painting. Screw threads shall be accurately produced in accordance with designer's specification and classification.

1.3 QUALITY CONTROL AND INSPECTION

1.3.1 The manufacturer shall submit evidence that a formal system of quality control is applied to all purchased materials and equipment.

1.3.2 Reasonable access shall be provided by the manufacturer to the Purchaser's inspecting authority which may be requested to attend the manufacturer's works, or works of the manufacturer's sub-contractors, during construction.

1.3.3 Load tests shall be carried out prior to shipment. Notwithstanding this the unit will again be checked and will undergo a full operational inspection including proof load test on arrival at the Purchaser's site.

1.3.4 The following definitions determine the extent to which substitutions may be produced.

"OR APPROVED EQUAL" material, products, or service require approval by addendum prior to the proposal due date. Materials, products or services which the Vendor proposes to substitute, and which he/she considers equal to those specified, must be submitted to the Purchaser, Baltic Container Terminal (BCT), Head of Engineering, not later than 10 days prior to the proposal submittal due date. Requests shall be accompanied by complete technical data and such pertinent information and/or samples as necessary, or as specifically specified, to fully identify and apprise the material, product, or service. Approval of materials, products, or services deemed equivalent will be issued by addendum prior to the proposal submittal due date.

"OR EQUAL" materials, products, or services do not require approval prior to the proposal submittal due date. Materials, products, or services which the Vendor proposes to substitute and which he/she considers equal to those specified shall be submitted to BCT, Head of Engineering for approval. The proposed substitution shall anticipate necessary lead-time required for approval by the Terminal and procurement by the vendor. Such submittal shall be accompanied by complete technical data and such pertinent information as necessary to fully identify and appraise the material, product, or service. No increase in the contract price or time will be considered when substitution is not approved.

1.3.5 Acceptance and load test will be carried out prior to shipment. Notwithstanding the unit will again be visibly checked and will undergo a full operational check including proof load test on arrival at its destination.

2 MECHANICAL TECHNICAL SPECIFICATION

2.1 MECHANICAL DESIGN

This section covers the provision by the Contractor for all labor and materials supplied:

2.1.1 to design, manufacture, ship and install the necessary mechanical materials, equipment and appurtenances.

2.1.2 to shop test as far as practicable and to field-test the entire mechanical equipment of the Spreader.

2.2 GENERAL

2.2.1 Responsibility for the reliable operation of the equipment in accordance with the requirements of this Specification shall be borne entirely by the Contractor. The Contractor shall demonstrate with his drawings and specifications and with the required tests that the equipment is capable of performing all of the required functions with minimum of downtime.

2.2.2 The mechanical equipment shall be designed to be fully capable of operating the Spreader reliably at the specified requirements on a continuous duty cycle, safely with minimum noise, vibration and maintenance according to EU regulations.

2.2.3 All parts of the mechanical equipment shall be designed so that they may be easily assembled, adjusted, removed for replacement and easily accessible for lubrication, inspection, maintenance, and repair. Emphasis shall be placed upon quick replacement of faulty or worn parts as opposed to repair in place. Where necessary for access, permanent platforms, walkways, handrails, stairways and ladders shall be provided.

2.2.4 The design shall be system safe as far as practical so that the failure of a component or loss of power precludes accidental lowering or coasting out of control.

2.2.5 Parts, components, and purchased sub-systems shall be readily accessible in the country of operation.

2.2.6 All materials shall be identified by reference to the specification of an internationally recognized standard association with indication of equivalence to a local standard where applicable.

2.3 DESCRIPTION OF WORKS

2.3.1 The Spreader shall comply with the requirements of the European Machine Guidelines, particularly Machinery Directive 2006/42/EC, Technical Specification, appropriate National and Local Standards, Statutory Orders, Regulations, Acts and Codes that apply. The Spreader have to be provided with a declaration of conformity and the CE marking and symbol according to the relevant annexes of the Machinery Directive.

2.4 AREA OF USE

2.4.1 The Spreader will be required to operate of the Purchaser's location.

2.5 GENERAL DESCRIPTION

2.5.1 The Spreader shall be designed as a container-handling unit for heavy-duty terminal applications

2.5.2 The design of the Spreader shall recognize that the machine will be subjected to an arduous duty cycle. Particular attention shall be given to maintainability.

The Spreader will be operating on a continuous 24 hour day, 7 days per week operation interrupted only as required for Contractors recommended maintenance.

2.6 STRUCTURE

2.6.1 The Spreader shall be constructed from standard hot-rolled steel sections. The steel grades shall be of weldable quality not requiring special temperature conditions for repair works.

2.6.2 The structure shall be so designed that water pockets are not formed in any member or by the inter-section of members and be such that there shall be no unsealed blind areas where paint cannot be applied. Adequate drainage holes shall be provided to discharge water clear of the structure in all cases where there is a tendency for water to collect.

2.7 LOAD CAPACITY

2.7.1 The Spreader shall be designed to lift a SWL of 41,000 kgs.

2.8 BODYWORK

2.8.1 Heavy duty rolled steel sections and steel plate covers shall be provided to give full all round mechanical protection.

Where steel plate covers are used to protect components, which require regular inspection, maintenance or replenishment then a means of easy access shall be provided. Particular care shall be given to the selection of hinges, which may be subjected to wear or corrosion because of the prevailing conditions.

2.8.2 Access, platforms, stairways and handrails shall comply with European Machinery Directives and European Standard EN 13586:2009-05.

2.8.3 All horizontal steel cover plates, which may be used for access, shall be treated with a proven, durable anti-slip surface.

2.8.4 Built-in recesses and/or steps shall be provided for access to and from ground level and where required corrosion resistant 'hand-holds' shall be fitted.

3 PAINTING SYSTEM

3.1. PAINTING

3.1.1 During construction and after fabrication has been completed, the Spreader shall be thoroughly cleaned and painted in a manner as specified using paint products approved by the Purchaser and in accordance with paint manufacturer's instructions.

3.1.2 Painting system shall be suitable for "Exterior exposed polluted coastal atmosphere" and in accordance with the standards.

Typical time to first maintenance 3 years.

4 SAFETY, INSPECTION, DRAWINGS AND MAINTENANCE MANUALS

4.1. SAFETY PROVISIONS

4.1.1 In the design and construction of the Spreader, all local safety legislation shall be observed.

4.2. INSPECTION

4.2.1 Contractor shall submit a "Tests on Completion" schedule 4 weeks prior to "in house" testing for Purchasers review.

4.2.2 The Purchaser may carry out of inspections prior to and during manufacture at the Contractor's works either with one of his own inspectors or by an outside appointed inspector. The contractor shall allow access for the purpose of these inspections.

4.3. DRAWINGS

4.3.1 Following placement of the order, the contractor shall submit for review to the Purchaser general arrangement, fully dimensioned detail drawings and schematic diagrams.

4.3.2 The drawings and diagrams shall be checked by the purchaser so far as it is possible with the information in his possession.

4.3.3 On completion of the contract, a copy of 'as made' drawings shall be supplied in PDF format.

4.3.4 The drawings shall include such details as:

i) Circuit diagrams, wiring diagrams and schematic diagrams of all electrical equipment.

ii) Fully dimensioned detail drawings of all major components and assemblies.

iii) General Arrangement of the Spreader.

4.4. MAINTENANCE AND OPERATION MANUALS

4.4.1 Two copies of good quality printed maintenance instruction manuals per contract in English and Polish language covering in detail the operation and maintenance of the Spreader shall be provided immediately prior to Acceptance Testing. A PDF copy of the maintenance manual shall also be provided separately.

4.4.2 The following shall be included in the Maintenance Manual:

i) Index.

ii) Full technical specification and detailed description of the terminal Spreader as a whole and of each item of machinery and equipment for guidance of the maintenance staff and management. Where the Contractor's standard published literature is used, it shall be suitably edited to delete irrelevant information.

iii) General arrangement and layout drawings in PDF format (Minimum A2 size), with appropriate cross-referencing to other drawings), schematic diagrams for power and control circuits whether electrical or hydraulic etc. The control sequence shall be fully described. General arrangement drawings shall show all leading dimensions, and a visual chart of safe working loads.

iv) Performance characteristics, copies of Works and Site Test Certificates, recommended settings of adjustable features, necessary.

v) Detailed list of all "As-Fitted" drawings as called for under the contract and supplied separately.

vi) Recommended schedules and programs for inspection, lubrication and routine maintenance. Lubrication charts and specifications. Full technical details for operation, adjustment, maintenance and testing of equipment and control.

vii) A means shall be provided for systematic trouble shooting, to enable detection and analysis of faults, with recommendations as to dealing with different types of problems likely to arise. This shall take the form of a compendium of cause/effect/solutions based upon experiences reported by users of the equipment split between electrical and mechanical systems.

viii) Dismantling, repair, assembly, setting up and testing procedures and instructions, including electronic 'black box' units, for the whole of the equipment being purchased, fully illustrated. These shall include exploded views of all main components with part numbers shown to assist in dismantling and re-assembling complicated items and for identifying replacement parts.

ix) Spare parts lists, Contractor's part numbers and the actual source manufacturers (if applicable), part numbers, together with source manufacturers address for ease of cross reference identification when ordering.

x) Special tools and instruments required, if any, for testing, maintenance and repair work.

xi) Description of special safety features such as safety interlocks; limits; indication; warning and cut-out devices, etc. Testing adjustment and maintenance procedures for such devices and circuits. Special hazards and precautions to be taken by maintenance staff.

Manuals	Language	Copies / Order
Maintenance,operation manual	Polish & English	2+1+ e-version
Spare parts catalogue	English	2+ e-version

5 TRAINING

5.1. PRODUCT TRAINING

5.1.1 The Contractor shall provide detailed product training for four Purchaser's engineers at the Purchaser's Site for a period of one full working day.

5.1.2. The following shall be included:

i) Training documentation and or materials as required.

ii) Certificate of Attendance for each attendee of manufacturers training completed.

iii) Details of course content shall be submitted to the Engineer at least 1 months before the scheduled delivery date.

6 MAINTENANCE TOOLS

6.1 ELECTRICAL/ELECTRONIC TOOLS

(i) One laptop /diagnostic tool/ with original software to communicate with Spreader Control Module shall be provided along with any instructions for use. The operating license shall be assigned to the Purchaser and training shall be provided for its application.

6.2 MECHANICAL TOOLS

The following mechanical tools shall be provided per contract:

(i) Set of tools necessary for adjusting and servicing the spreader - one (1) set.

(ii) Torque Wrench with socket sets – one (1) set.