ARAB REPUBLIC OF EGYPT
MARITIME TRANSPORT COMPANY

ALEXANDRIA CONTAINERS &

CARGO HANDLING COMPANY

7 RUBBER TYERD YARD GANTRY CRANES (RTGs)
40 TON
FOR BRANCH OF ALEXANDRIA CONTAINER AND CARGO HANDLING COMPANY (PRIVATE FREE ZONE)
THREE FOR ALEXANDRIA CONTAINER TERMINAL
FOUR FOR DEKHEILA CONTAINER TERMINAL

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Seven Rubber Tyred Gantry Cranes CHAPTER I General Requirement

1-1 Object of the Tender

The purpose of this tender is to contract for the following item: -
Design, manufacture, delivery, commissioning, and unloaded of Seven fully erected rubber tired yard gantry cranes (RTG) complete with telescopic spreader of capacity 40 ton for Alexandria and dekheila, terminals. (Private free zone) the ports are situated on the north coast of A.R.E.

1-2 Type of Equipment

RTG, Diesel Electrically Power

A device for skewing the spreader ± 5° around its vertical axis (skew), trim, and side shift motions is recommended. The rubber Tyers track wheels can be turned by 90° thus allowing crane travel transverse to the normal working conditions. **The crane must be runs on 16 rubber Tyers wheel.**

1-3 Duties

The rubber tired yard gantry cranes are required for container handling in the container terminal of the port of ALEXANDRIA AND DEKHIELA . The equipment offered must be of robust construction for duties they are to perform and must be designed for intensive work. The crane shall have to carry out the following operations: -

a) Remove a container from a stack or from the ground in order to place it on the ground, on a truck chassis, on a flat bed fright car and vice-versa.

b) Travel in the narrow strips that separate the container stacking areas.

c) Travel may be in a longitudinal direction by straddling over the aisles and in a transversal direction at the end of a run in order to move to another aisle.

1-4 Theoretical Duty Cycles

Main Hoist and Trolley: -

The main hoist and trolley theoretical duty cycle shall be used for the purpose of calculating times and equipment designs for the main hoist and trolley drives and shall be based on the following: -

- Handling the rated load.
- Each motion accelerates, runs, and decelerates at the maximum rates and Speeds for which the RTG is designed.
- Main hoist and trolley travel motions can occur simultaneously.
- Ambient temperature is maximum specified.
- The operating wind load is maximum specified.
- The cycle is repeated indefinitely.

1-5 Climatic Conditions

The crane shall be designed and guaranteed by manufacturer to operate under the following climatic conditions: -

- Saline spray and sea air.
- Ambient temperatures up to 50° c.
- Relative humidity of 100 %.
- Presence of fine sandstorms and dusty weather.
- Electrical equipment shall be tropicalized and installed in water proof and dust proof enclosure degree of electrical protection will be IP 55 minimum
- Operation up to wind speed 72 km/hr and the crane will withstand wind speed up to 150 km/ hr

1-6 Rules

The Cranes shall comply with the manufacturing and testing rules of the European handling federation **"FEDERATION EUROPEENE DE LA MANUTENTION (F.E.M.)" or (JIS) or equivalent.**

However, It is specified that any other international rules giving the same level of safety and quality would be a capital in such a case , The contractor must provide with his bid all pertinent information on these rules , Which comply with the (F.E.M.) rules.

1-7 Technical Service:

Tenders must assure and provide guarantees for the continuity of production of spare parts of the equipment at least for the coming ten years and that their local agents can - at any time - supply required spare parts to maintain the equipment offered. Furthermore the assurance is required, that the local agents can provide technical staff to give assistance as may be required by ACCHCO in maintaining and repairing this equipment.

1-8 Spare Parts:

a- The Tendered shall enclose with his tender lists of standard spare parts supplied with the attached equipment including all electronic cards or PLC components.

b- The Tendered shall propose price lists for a stock of recommended spare parts for maintaining the entire unit assembly for a period of five years under normal operating conditions (20 hours/day – 3 shifts /7 days aweek).

1-9 Tools (European Union / JAPAN / USA):

The Tendered shall supply with his tender a necessary tooling supplied with the equipment for maintenance and repair as follow:-

ITEM	DESIGNATION	ALEX. QTY	DEKH. QTY	TOTAL QTY
1	Complete set of open-end spanner from 6 mm to 65 mm	2	2	4
2	Complete set of small reversible ratchet with its sockets from 6mm to 32mm	2	2	4
3	Complete set of big reversible ratchet with its sockets from 19mm to 55mm	2	2	4
4	Complete set of double offset box wrench from 6mm to 55mm	2	2	4
5	Complete set of flexible ended wrenches from 6mm to 55mm	2	2	4
6	Complete set of hexagon allen keys (long / short) arm from 1mm to 17mm	2	2	4
7	High Pressure washing machine(200 bar) with all accessories with 60 meter hoses	2	2	4
8	Angle grinding machine (9 inch) 220 volt	2	2	4
9	Angle grinding machine (4 inch) 220 volt	2	2	4
10	Variable speed power drill machine 220 volt maximum drilling in steel 19mm, with complete SDS drill	2	2	4
11	Digital meggar 1000 volt	2	2	4
12	Set of Cutters and pliers general purpose	2	2	4
13	Safety screwdrivers (flat blade & Phillips)all size	2	2	4
14	special tools for all maintenance of the diesel engine	2	2	4
15	heavy spanner size (50 ,55 , 63) mm	2	2	4
16	adjustable spanner set (6, 8, 10,12 ,14 inch)	2	2	4
17	star allen key set from T10 to T50	2	2	4
18	Set of hexagonal wrench	2	2	4
19	hexagonal key set in inches	2	2	4
20	pipe spanner (12 ,14,18 inch)	2	2	4
21	electrical tool bag (at least 31 pieces)	2	2	4
22	grease gun	2	2	4
23	vice 8 inch	2	2	4
24	sets of electrical instruments (digital multimeter , clamp on meter) per crane	1	1	2
25	set of inspection tools (tacho meter , lux meter , noise level meter , laser temperature meter and laser distance meter ...etc) per crane	3	4	7

26	Master puller sets with capacity up to 50 ton consist of :- • Hand pump • Cylinder • Saddle • Hose • Gauge • Gauge adapter • Puller in details :- - Grip puller - cross bearing puller - bearing cup puller - bearing puller - case	2	2	4
27	grip puller sets 20 ton in details :- • hand pump • Cylinder • Saddle • Hose • Gauge • Gauge adapter • Puller in details :- Grip puller	1	1	2
28	air compressor 12 bar with tank 500 litters	1	1	2
29	Ratchet spanner set from 6 mm to 32 mm , 46 mm	2	2	4
30	Grease pneumatic pump	2	2	4
31	10 Tons hydraulic jack	2	2	4
32	Blower not less than 1000 watt (230 volt)	2	2	4
33	Small Torque wrench (0 – 100) N.m	2	2	4
34	Chain loader ratchet lever hoist	2	2	4
35	Complete mechanical Pag included (wrench & spanner)	2	2	4
36	Hole wrench tool	2	2	4

1-10 Technical Documentation To Be Supplied By The Contractor:

1.10.1 *Documentation subject to the approval of the client*

a- Working drawings, Detailed working drawing for the structures approved by international society shall be made by the Contractor and submitted to the client. Working drawings and detail drawings shall be supplied with Calculations carried out with the help of a computer shall be accompanied by a summery description which clearly shows the hypothesis is used as the bases for the calculations as well as all results.

b- A description of welding processes and procedures shall be supplied along with a list identifying the corresponding locations. The results of tests and inspections shall be submitted to the client. These documents (items a & b) as part of shipment documents. The bidder must submit with his offer drawing for the crane including dimensions for driving cabin ,crane general arrangement, single line diagram, electric house, , generator set house , , mechanical and structure drawing.

1.10.2 *Documentation to be supplied upon transfer of ownership:-*

All documentation must be (one original and one copy) per each crane in details as follows :-

no	Item name	Qty(original)	Qty (copy
1	set of all electric components in the crane instruction manual, plus all instructions necessary for repairs as follows:- • plc • drives • cctv system • ac motors • lv switch gear • generator • load cell • fire system • cms • wind speed • and all low voltage components • ***... etc***	7	7
2	sets of all mechanical components in the crane instruction manual , plus all instructions necessary for repairs as follows:- • wire ropes • gear boxes • brakes • hydraulic parts • wheels • bearing	7	7

	• coupling • sheeves • service cranes • etc .. • set manual of spreaders		
4	set of wiring and connection diagrams	7	7
5	set of operating instruction and workshop manual and spare parts manual for diesel engine and generator.	7	7
6	set of operating instruction manual of the crane.	7	7
7	set of Hydraulic drawings of wheel turning, emergency brake and head block skewing system.	7	7
8	Set of maintenance instructions.	7	7
9	Set of manuals of specifications of alloys for gearboxes ,shafts , pins ,sheaves and structure	7	7
10	Set of spare parts manuals and lists of recommended spare parts to replace worn cut parts and make repairs with identifications marks, references and the name and address of the respective suppliers.	7	7
11	set Complete of " as built " drawings covering all aspects of the crane structure, mechanical and electrical as required for maintenance (one of which is to be on reproducible transparency).	7	7
12	lubrication files including lubrication points, the type of lubricants to be used, the oil capacity of Gear boxes .. etc, the frequency of additions and changes in terms of hours of operation.	7	7
13	Estimate of the final weight and the location of the centers of gravity.	7	7
14	Sets of general description with detailed views.	7	7
15	Full certificates of crane components and phases of fabrication tests with stamp	7	7
16	Acceptance tests during fabrication from 3rd party with stamp	7	7
17	file of conformity and testing certificates for structural steel, wire rope and manufacturer testing certificates for motors and electrical & mechanical equipments	7	7

NOTE : All previous points must be put on 2 usb stick memory card and 2 usb hard disc at least 2TB size per crane

1-11 Required Software programs :

NO.	ITEM	QTY per crane
1	original license windows	2
2	original license office	2
3	original antivirus program	2
4	original e-room CMS program	2
5	System definitions for fixed CMS PC	1
6	Original PLC ,spreader and headblock plc controller (if used) , inverters and cabin diagnostic system software	2
7	original software for radar anti collision , diesel engine controller starter like (deep sea for example) and spreader display	2
8	original software for any else components on the crane have software program related to your design	2

1-12 Required Communication cables :

- All cables used for installing and viewing (PLC/CMS/inverters/cabin diagnostic system/spreader and head block plc if used /spreader display) programs by using laptop **(2 sets per crane)**
- All cables of programming safety devices like radar and ultrasonic sensors, encoders and diesel engine controller starter **(2 sets per crane)**
- All cables for programming any else components used on the crane related to your design **(2 sets per crane)**

1-13 TRAINING

1-13-1 TRAINING AT MANUFACTURE FACTORY

Electric control and mechanical training (8 Engineers + 4 technician) on two groups. 2 weeks period for each group.

Successful bidder is required to submit in detail training course with training documents for approval. Full accommodation and internal transportation, Air tickets will be on behalf of contractor. This training must be started three months before beginning crane commissioning.

1-13-2 ON SITE TRAINING

The Tendered shall include in his tender a training program for drivers and maintenance personnel for the proper and expeditious operation and maintenance of The crane.
The contractor shall undertake such training for whatever period is reasonably after acceptance of the crane by the company.
Tendered shall submit a plan for two weeks training the following personnel:-

- 5 Engineers.
- 8 Crane operators.
- 5 Mechanics.
- 5 Electricians.

1-14 Inspection and Workshop Test and Follow up:

- Two engineers for two weeks for inspection of drawing approved from the third party for all the electrical, mechanical and hydraulic system.
- Three engineers for two weeks to follow up and check all electric and mechanical components assembly, in attend of third party.
- Four Engineers for two weeks for all cranes inspection and test before shipment in attend of third party.

Note : Full accommodation, internal transportation and Air tickets economic class will be in behalf of Contractor.

1-15 Delivery Time:

Period of supply will be taken into consideration during evaluation of tenders, the preference will be for the lower period supply .

Note : ACCHCO will only accept fully erected cranes

1-16 Guarantee Periods

*The guarantee period is 24 months for cranes components starting from handover date

*The guarantee period is 48 months starting from handover date for the following items :

a) gear boxes and gantry transmission system
b) steel structure
c) trolley wheel
d) PLC & INVERTERS
e) The whole spreader including (PLC (if used))
f) CCTV system
g) IPC (industrial personal computer) for CMS monitoring including monitor, UPS..etc

- The 2nd Party is committed to submit an offer for technical support of "software of PLC and speed drives" for a period of 3 years following the years guarantee of the Software in accordance to the Technical specifications.

1-17 Past experience :

- Tenders should stick completely with the tender documents (technical specifications). If he fails to comply with this document the bid should be rejected.

- Past experience of the manufacturer for RTG cranes from his own production delivered to the clients to be mentioned in a reference list including:

1. Client name.
2. Client's address, e- mail and fax.
3. Year of delivery.

Note : Past experience preferable to be delivered with an experience at least 200 RTG. At least 100 RTG deliveries outside the country of origin.

Past experience in Egypt and ACCHCO Will be considered in the evaluation.

1 -18 Offers Evaluations

1-18-1 Evaluations Elements & Principals:

The following are the elements and principals for evaluation of system supplier's proposals.

- Each supplier proposal will be evaluated using the pointing system stated in this sections to obtain the final evaluation degree for each proposal
- The supplier proposal will obtain a final degree not less than 85% of the total evaluation degrees will be accepted.
- This accepted proposal will participate in the tender process where the selection of the winner proposal will be based on the least considered bidding price of the accepted proposals.

- The considered bidding price of the accepted offer will be calculated as follows:

the evaluation considered price =

$$\text{TOTAL PRICE OF THE TENDER} \times \frac{\text{HIGHEST TECHNICAL TENDER DEGREE}}{\text{TECHNICAL TENDER DEGREE}}$$

- **The item evaluation and their weights as follow:**

Item	Weight
Mechanical	**45%**
Electrical	**40 %**
past –experience	**10 %**
period of delivery	**5%**

Note : For any supplier proposal to succeed, it has to obtain more than 85% in mechanica and electrical evaluation items

1-18-2 Crane Calculations

The Tenderer must provide the calculations of:

1. Duty operation cycle.
2. Hoist mechanism.
3. Trolley mechanism.
4. Gantry mechanism.
5. Wheel load gantry.
6. Crane stability

1-19 UNITS AND DIMENSIONS

The contractor should use the metric system for all scales units and dimensions.

1-20 TENDER DRAWINGS

Each tender should be accompanied by two copies of drawings giving sufficient details and clearly indicating the design of the equipment. The drawings submitted should be enumerated in the schedule of particulars.

The tender should be submitting details drawing for all reducers in the crane including alloy % which used.

1-21 APPROVAL OF DRAWINGS

After the acceptance of the tender and within six weeks there after the contractor should submit in triplicate the following drawings approved from an international classification society:

Structural and stability calculations, general arrangements and drawings.
Fully dimensioned detail drawings of all equipment being supplied.
A schematic diagram of the proposed electrical system showing the mode of operation
Supply of additional prints of the approved drawings as may reasonably be required for the use of ACCHCO inspector.
Not proceed with any work on any part of the equipment until the drawings affecting that work have been approved by international classification society.

1-22 "AS MADE" DRAWINGS

Coincident with delivery or shipment of the equipment, the contractor should deliver to the ACCHCO two complete sets of the xerography copies on tracing linen and 4 sets of prints of the relevant approved drawings of the work exactly as made.

1-23 DRAWING FORMAT SHOULD COMPLY WITH THE FOLLOWING REQUIREMENTS:

a) They should be fully dimensioned and contain all identifying marks for the equipment.
b) Drawings should be A3 size,
c) Standard labels should be on the bottom corners. Particulars of the standard drawing labels to which the contractor should comply are shown on exhibited drawing, titles and other information to be placed on the drawings should be obtained from the ACCHCO.
d) one set should be delivered to the international society. The other set should be packed and dispatched by the contractor to ACCHCO.
e) General arrangement drawing is required fully dimensioned in metric units, sufficient to erect, operate and maintain the whole of the work including the following:
General arrangement of the design of the crane including leading dimensions, thickness and dimensions of all structural parts specified clearances.
Diagram showing loading on bogies under full load.
Detailed stability calculation provided with stability diagram as well as design calculation
For each mechanism i.e. hoisting wire ropes, drums, choice of motors, and relevant calculations for rating reducers, choice of brakes ... etc.

1-24 SITE INVESTIGATION

The tenders are allowed to investigate the site, yards at Alexandria and dekhiela terminals before submitting their offer at their own expense.

1-25 TENDERS INQUIRES

If there any inquiries, the tenders must submit them in writing to ACCHCO before opening the technical envelop by 21 working days, ACCHCO will give in writing by circular fax to all tenders the reply to any inquiry.

CHAPTER II

Main Characteristics

2-1 Dimensions:

Span (range between wheel axes) corresponding to 7 ISO containers +1 track lane for three cranes (DEKHIELA terminal)	26.5 m
Lifting height above ground under spreader twist locks For three cranes span (26.5 m) (DEKHIELA terminal)	21.3 m
Span (range between wheel axes) corresponding to 6 ISO containers +1 track lane for three cranes (Alexandria terminal)	22.5 m
Lifting height above ground under spreader twist locks For the three cranes span (22.5 m)(Alexandria terminal)	21.3 m
Span (range between wheel axes) corresponding to 6 ISO containers +1 track lane for one crane (DEKHIELA Terminal)	22.5
Lifting height above ground under spreader twist locks For one crane span (22.5 m)(DEKHIELA Terminal)	18.3 m
Yard drainage slope along trolley motion	1%
Maximum Crane overall Length over bogie guards must not exceed	13 m
Maximum overall width of the double tires with guards must not exceed	160 cm

Note :

- In case of cranes of span 22.5 m the total overall width should not be exceed than 25.250 m with two stairways
- In case of cranes of span 26.5 m the total overall width should not be exceed than 29.250 m with two stairways
- The Trolley Travel Length Should Completely Cover the Distance Between the Centerline of the Track Lane and The Centerline of the Last Container On the Other Side

2-2 Lifting Capacity:

Pay load under telescopic spreader	***40.0 Tones***

2-3 Operating Speeds:

2-3-1 HOIST

Maximum speed with full load	not less than 25 m/min
Maximum speed without load	not less than 50 m/min

2-3-2 TROLLEY TRAVEL

Maximum speed with full load	not less than 70 m/min
Maximum speed without load	not less than 70 m/min

2-3-3 GANTRY TRAVEL

Maximum speed with full load	not less than 65 m/min
Maximum speed without load	not less than 130 m/min

Notes:
The acceleration time must be the same as the deceleration time

2-3 Crane Wheels

no. of crane wheels	***16***

The crane must be 16 sixteen wheels with wheel turning (hydraulic system) with 90 degree and other degree for spin movement and can move gantry direction with 90 degree

Note: Ac electrical inverters system is not accepted for wheel turning system

CHAPTER III

Mechanical Specifications

Tenders are requested to enclose with their offers complete specifications for the equipment.

3-1 Steel Structure:

- The structures and mechanisms of the cranes are designed according to FEM/1.001 3rd. Edition 1987 Crane Standards and REV Edition 1998 10.1 or (JIS) or equivalent.
- The design of the cranes should be as simple as possible consistent with the requirements of these specifications, special emphases on safety, ease of erection and maintenance, trouble-free operation and suitability for the conditions under which the cranes will operate.
- Due to the site conditions, namely, sea air, the design should be such that all parts are well drained and without pockets to hold corrosive moisture.
- The main structure of the portal type should be constructed from welded box sections.
- Each member should be designed to resist all the stresses or combination of stresses which may be induced under the conditions described in these specifications.
- The main connection of steel structure parts will be flange (are preferable).

Structures Classification:

Class of Utilization: U7 (Continuous or near co continuous use)2,000,000 cycles
State of loading: Q2
Group classification: A7

- The structure of RTG crane consisting of trolley girders, legs, and sill beam shall be of box section.
- The stairways shall be provided on the leg and walkways with safety handrails must be provided on the trolley girder at both sides of the trolley rails for inspection and maintenance purpose.
- The stairways are slop shape from the ground level to the driver cabin and the same at the opposite side to reach the diesel engine.

3-1-1 Mechanical Design and classification:

Should be not less than the following values:

	Class of Utilization	*State of Loading*	*Group Classification*
Hoist	***T7***	***L2***	***M7***
Trolley travel	***T7***	***L2***	***M7***
Gantry travel	***T7***	***L2***	***M7***

- *Classification of mechanical parts according to F.E.M.87 Section I (October 1987) Booklet 4. Or (JIS) OR Equivalent.*

3-2 Disassembly and Maintenance:

The locations of the various types of equipment, i.e., winches, machinery, motors, electrical equipment, shall be chosen so that they are completely accessible for current maintenance all equipment shall be designed for easy disassembly and only require minimum disassembly of adjoining equipment.

Removable panels for generator house shall be provided wherever necessary to facilitate maintenance and disassembly work. All assemblies and subassemblies shall be provided with appropriately dimensioned means to facilitate handling and hoisting and provide good load distribution during such operations.

3-3 Diesel Engine:

- The engine should be compatible for operation with Egyptian standard specification for diesel engine fuel – gas oil as ***attached sheet page 131.***
- The engine will be a four stroke in line water-cooled
- A main fuel tank with sufficient capacity not less than 2500 Litre
- An auxiliary fuel tank not more 300 Liter connected to the main fuel tank by a fuel pump , the fuel pump is controlled by sort of low and high level float sensor
- Fuel strainer & Water separator for fuel should be installed
- A heater must be installed inside the auxiliary fuel tank for preventing fuel from freezing
- Automatic emergency cut off at:-
    - Low Fuel and water level
    - Oil pressure is low
    - Over speed
    - Over temperature of diesel engine and generator
    - Over and Under voltage of generator
    - Over current of generator
    - Short circuit and Earth fault protection
- Control and gauges:-

  The RTGs equipped with panel near the diesel house for operation includes all gauges of diesel engine and hour meter of the engine. And also voltmeter, current meter, frequency meter, Ammeter for batteries volt, speed meter for engine, oil pressure gauge, water temperature gauge and others.
    - The electric panel will be equipped with alarm and indication lamps for low battery voltage, dynamo failure.
    - The diesel engine panel will be equipped with lighting system and suitable ventilation system.
    - The diesel engine will be equipped with indicator levels for oil, water and fuel.
    - Engine oil drain, refill fuel valves and blow by of engine at the ground level.

- The engine must be equipped with complete set of electric fuel pump used for feeding the main tank by fuel in less than half an hour by connected pipes installed below diesel engine
- A Hand pump installed inside the diesel engine room for changing oil
- Noise and vibration level should not exceed 80 db at 1m far from the engine room enclosure
- The diesel engine will be equipped with 24 DC volt emergency lighting from DC battery.
- The DC battery will be fitted near ground level.

- A 220 volt single phase 50 HZ battery charger device shall be provided for the diesel engine starter batteries of the crane
  - **The engine must be supplied with special tools for each type of maintenance according to its documents.**
- Diesel engine should be located in the opposite side of the electrical room and should not be in the ground level and be at the same level of the electrical room (Any other extra specifications offered by tenders will be considered in evaluation)
- Cummins diesel engine is preferable

SPREADER :

- Telescopic automatic **electrical** spreaders extendable into locked locations for handling standard (IA, IB, IC) international organization for standards (ISO) containers with ISO recommended corner fittings (20 – 40) feet.
- The spreader preferable attached to head block.
- The head block in corporate 8 hoist ropes attachment location.
- Personal protection on the two sides of the head block preferable fitted (hand rail).
- The spreaders should be robustly designed for safe operation with minimum maintenance. All screw threads should be mechanically locked by pin or tab washer. Connection and disconnection from the crane should be simple, foolproof and rapid.
- The crane and spreader should accommodate eccentric loading and loads resulting from failure of a container corner casting safety and without damage.
- Spreader should be fitted with lifting points.
- Floating twist locks should be mechanically and electrically secured to prevent operation during carrying load.
- The mechanical security is preferable to be achieved through rectangular cross section area of twist Lock (ISO mechanical security).
- Emergency hand operating preferable fitted with the spreader to release of the twist lock if the motor of twist lock is not work (damaged).
- Sensors should be fitted to each corner, to indicate when spreader is satisfactorily positioned and interlocked with the container and to prevent operation of twist locks until acceptable safe position has been achieved.

- The spreader with head block have a rigid anti sway receiving system. (no additional anti sway system).
- Main supply and control cable to spreader should be weatherproof multiple connector.
- Limit switches should be of robust. Fail safe, weatherproof design should to be approved.
- All spreader operations should be interlocked to fail-safe and provide safe operation.
- Control of the spreader should normally be from the operator's cabin.
- The spreader should be provided with electrically movable corner flipper arms.
- The spreader should provided with height detection sensor (HIS) for slowing down the hoist down speed when approaching the empty spreader to container
- Flipper torque should not be less than 2000 Nm.
- Lifting capacity (S.W.L) 40 tones
- Lifting lug capacity (gable end) at least 4x10 tones
- Lifting lug capacity (main frame) at least 4x10 tones
- Positioning spreader in the different required lengths must be achieved through control system of accuracy ±4mm.
- Spreader structure according to F.E.M or (JIS) or equivalent and classifications in rule (U7, Q2, A7).
- Contractor should describe all details of the proposed spreaders extensively in his tender.
- Spreader will be provided with fault display screen to find the spreader fault so easy.
- The power supply and control flexible cable from trolley to spreader is provided inside basket on the head block .
- Testing local panel installed on spreader for manual operation of the spreader.

3-4 MACHINERY HOUSES AND ENCLOSURES

Diesel engine and AC generator to be arranged in weather proof housing. This housing will accommodate furthermore all auxiliary equipment necessary for the operation of the engine. The common bed plate will be a frame of steel sections enclosed by the housing all around. To dampen the noise of the running diesel engine housing will be soundproof. The noise level measured at a distance of 1,0 m from the housing and at a height of 1,6 m above ground level will not exceed 80db (A)

The exhaust system of the crane to be provided with an efficient silencer with pipe line level height up about two meters to the top of the bridge girder.

The machinery house will be provided with automatically movable platform (hydraulic system) for both sides.

a- Dimension:

Machinery houses and enclosures shall be designed to make it possible to disassemble the equipment without difficulty; these housings shall be spacious enough to facilitate operations involving the removal and maintenance of equipment.

b- **Ventilation:**

In the case of electronic equipment, the respective locations shall be such as to ensure good operation and protection of the equipment.

Good ventilation shall in general be provided in machinery house

c- Design principles:

- All measures shall be taken so that the access means comply with applicable regulations. Electric wires shall be installed in such a manner as to preclude rapid deterioration caused by oil and grease.
- All appropriate measures shall be taken to ensure that fires cannot spread.
- The diesel room should be equipped with drain pipe lines for (oil, water, fuel ….etc) and at the end of these pipes there is a sink for collecting wastes installed under the diesel engine room form the outer side
- The diesel room should be bolted with the crane structure
- **A type of protection beams should be installed on the outer of the diesel room housing on the crane legs (container lane inner side) for protection the room from emergency accidents**

3-5 MAIN OPERATORS'S CAB:

3-6-1 Dimensions:

The cabin shall be designed so as to provide adequate space and sufficient headroom. The dimensions shall be chosen as a function of the location of controls, the rotating operator's seat and access to the door.

The cabin provided with all gauge for operation and safety (load scale digital, no of handled containers.....etc.

Operator cabin shall be equipped with:-

- Fixed VHF with external DC power supply
- Air condition.(Egyptian made) and heating equipment
- Digital spreader height indicator.
- Digital load cell measurements meter display
- Spreader indication lamp for all status
- Wind speed meter
- Ventilation for all the panels in the cabin and driver chair and trolley panels.
- Hinged door are to be fitted with secure tamper-proof, cylinder type locks.
- The cabin should be provided with rear view mirrors and two electric windscreen wipers and

washers. The cleaning of the external surfaces of all windows should be easily achievable from within the cabin.

3-6-2 Visibility and Glazing:

The position of the cab and its windows shall be such as to provide operator with a good view of the working area, view of operation should be through lightened, anti-glare glass, full width floor window of toughened glass of suitable thickness should be provided according to F.E.M or JIS or equivalent

- The cabin will be facing the diesel engine side of the crane.
- The emergency exit will be possible at any position of trolley along the girder in case of hazard condition
- All lower windows will be fitted with safety bars_

3-6-3 Insulation:

Acoustic and thermal insulation shall be provided for all walls, as well as for the ceiling and door.

3-6-4 Equipment:

- Stationery non-glare fighting fixture shall be provided which only provides enough light to illuminate the controls.
- Cabs shall be provided with efficient and completely safe ventilation.
- The cabin must be equipped with means of isolating vibrations.
- Ventilation equipment shall comply with applicable safety regulations (air condition).
- The cab shall be provided with a comfortable rotating chair, and it shall be possible to adjust both the position and height of the chair.
- The chair shall not interfere with the movement of the operator and not prevent him from standing up occasionally while operating the equipment.

3-6-5 Controls:

Controls shall be located so that the operator can manipulate them easily.

- The control disks on either side of the chair rotatable with the chair.
- Three-indication lamp for twist locks open, closed and landed for the spreader functions.
- Monitoring system must be connecting in the cabin, which indicate all the function and movement of the crane and faults

3-7 CONSTRUCTION

3-7-1 GENERAL

Each member should be designed to resist all the stresses or combination of stresses. Cabin cladding should be according to the manufacturer's usual standard to be stated in the offer.

3-7-2 HOIST

3-7-2-1 HOISTING DRUM AND SHEAVES

The diameter of both drum and sheaves must comply with F.E.M or (JIS) or equivalent.

3-7-2-2 HOISTING ROPES

Eight working **wire ropes with same diameters** used on one drum and in case of head block installed should not include sheaves

As item no. 3-13 (extra flexible breaking load not less than 6 times S.W.L) ease to maintain and change (will be evaluate)

3-7-3 GANTRY TRAVEL

3-7-3-1 GENERAL

- **four driving units should be used (the unit consists of motor, brake, reducer, etc.).**
- **the ganrtry motors type is vertical mounting and installed on the inner side**
- The gantry travel should have the following operation modes:
    - Normal mode: the gantry motion is 90 degrees to the direction of trolley motion.
    - Gross mode: the gantry motion is in the direction of the trolley motion as the wheels rotate 90.
    - Rotation mode: the gantry should rotate about its central axis by rotating the wheels angles between 0°-90°(spin motion)
- Locking devices should be provided in all positions
- The locking device (mechanical lock) preferable separately from the wheel rotating device.
- The operator must be able to steer the crane from operator's cabin. He should also be able to control the speeds of the motors for correcting misalignment.

3-7-3-2 GANTRY WHEELS AND TYRES

- The number of wheels must be 16 wheels and the tires should be tubeless.
- The tires should be designed and constructed for heavy-duty service to withstand the applied loads at the rated operating speeds and service.
- **A plate (jacking point) must be provided for supporting the crane safely for the purpose of replaceing the tyre easily or other parts of the gantry machinery and suitable jack device should be supplied**
- **The tires preferable equipped with sensor explain the pressure per/ tyre connected with device make sound alarm only without connected to PLC this device is located in operator cabin**

3-7-3-3 GANTRY JACKING DEVICES (HYDRAULIC JACKING DEVICE)

- Jacking devices are preferable to be provided for supporting the crane safely for the purpose replacing the wheels or other parts of the traveling machinery and wheels rotating &change. (one hydraulic jack fixed for each corner in the crane).

3-7-3-4 WHEEL LOCKING

- Locking and unlocking of the wheels should be done automatically for the two modes of operation.
- Safety measures should be taken into account for the wheel pivoting and locking in the following manners:
  - Prevent the gantry travel motion unless all wheels are locked in the correct position for the chosen motion mode.
  - Prevent wheel locks to operate unless the wheels are in the correct position for the chosen motion mode. Unlocking should be prevented when the wheels are moving
  - unlocking should be prevented when the wheels are moving

3-7-3-5 TRAVEL EQUALIZER BEAM

- The crane should have one equalizer beam at each corner, each have 4 tyres
- Wheel bearing should be roller bearing.
- Bearing has a long life (20000 hours).
- Bronze bushes are prohibited.

3-7-3-6 WHEEL GUARDS

The wheels should be provided with safety guards (two guards for each double wheels). They preferable of lightweight and easily assembled and dissembled.

3-7-4 TROLLEY

3-7-4-1 TROLLEY DESIGN

- Contractor should include all relevant details with his tender.
- **four driving units is preferable to be used (the unit consists of motor, brake, reducer, etc.).**
- -The trolley should be rigidly constructed and designed for ease of access and maintenance.
- The traversing motion should be achieved by a fully proven system of high reliability with low maintenance requirements.
- The trolley should be equipped with a service crane for maintenance and handling parts from and to the ground level (The crane preferable capable of lifting a load at least 500 kg capacity).
- The trolley should be supported on **double flanged wheels** for all wheels and horizontally guide wheels for one side runs on the rails.

- The trolley frame should be protected against derailing from the trolley girder even if the wheels and axles fail
- The two walkways of the trolley rails must be erected from the down line of girder about 80cm and cover all the trolley girder length.
- The trolley should be provided with **rain shelter** for protection the whole trolley from dust , rain and for easily maintenance without obstacles (like changing hoist motor and changing wire ropes)

3-7-4-2 TROLLEY RAIL MOUNTING

Trolley rail to be bolted /or welded rails.

In case of bolted rails it must be mounted in rubber pads.

3-7-5 ACCESS PLATFORMS AND STAIRWAYS

- Safe access by means of stairways and platforms should be provided to the driver's cabin, diesel room, and main beam and to every place where any person engaged on test, maintenance, repair and lubrication of the crane has to work.
- Adequate handholds and footholds should be provided where necessary, especially for maintenance the two rails.
- Every platform and stairway should be securely fenced with double steel handrails having a minimum height of 1.1 m to the top rail.
- Stairs, platforms and safety guards should be according to F.E.M clause 7.4.5.2 or (JIS) or equivalent.
- Stairs and guards should be bolted.
- Stand ladders are not accepted.

Note :

- **Parts such as platforms, handrails, stairs, safety guards, etc. Which are not subjected to main forces or stresses may be fabricated of steel (37 - 3u) or equivalent.**
- **All bolts and fasteners used preferable to be made of stainless steel.**

3-8 MECHANICAL DESIGN

3-8-1 LOADS AND FORCES

- Each hoist winch and trolley traversing movement should be calculated for the maximum operating load at prescribed acceleration and deceleration. Collision against the end buffers should be treated as an emergency case and should not cause permanent damage to the mechanical parts.
- The starting and braking forces for hoist and trolley travel should be considered as normal operational loads. Higher stresses will be allowed under abnormal (emergency) conditions.
- The long travel drives should be calculated for stall torque load and starting or breaking the slip forces according to ISO 5049/1 section 12.
- The design should consider the characteristics and supporting of machinery parts to avoid excessive induced vibrations.

3-8-2 STRESSES

- The maximum allowable stresses, specific pressures and the same for the parts should be established according to F.E.M. Clauses 2.5, 2.6 or (JIS) or equivalent.

3-8-3 ASSEMBLY

- Particular attention should be paid to the construction and assembly of the mechanical work in so far that dismantling of the parts should be easy.
- All bearings should be readily accessible and able to be checked without disassembling of other parts.
- Finished surfaces under motors should be large enough to allow moving of the motors to afford clearance for the coupling bolts.
- Shims under the motors should be placed to enable adjustments for any replacement motor.
- Tubing, piping etc., which is to be attached to the steel structure, should have sufficient free space to prevent collection of debris etc. And to afford maintenance.
- At locations where beam plates should be reinforced to support shafts, the reinforcing should not be constructed of various plates, but one plate of sufficient thickness should be used.
- All bearings, supports, motors, reducer boxes and the like should be mounted on planned and milled finished surfaces and to be connected with at least 2 (two) bolts in reamed holes.

3-9 MECHANICAL EQUIPMENT

3-9-1 GENERAL REQUIREMENTS

- The basic design of all mechanical equipment should be such as to keep repair at location as minimum as possible.
- Mechanical parts exposed to splashing water should be provided with efficient protective means.
- Surfaces of machined parts and fillets in particular should receive special attention.
- Machine bases should be designed to ensure the proper operation of mechanical elements.

3-9-2 GEAR REDUCERS AND GEAR CASES

- Gear reducers should be designed according to the F.E.M or (JIS) or equivalent to withstand the maximum intermittent loads in every motion (hoist, trolley, and gantry) and use this load as a designed normal load.
- Gears should be housed in perfectly rigid metal gear cases, which can be easily disassembled and equipped with handholds.
- Openings for shafts and joints should be provided with appropriate seals. Shaft ends, which are not in use, should be provided with appropriate protective covers.
- Gears should be manufactured from alloy steel with machine cut teeth suitably hardened. All outdoors bolts must be made of stainless or galvanized high strength steel for large diameters.

- All gear reducers should be provided with the following:
  - A level indicator showing both maximum and minimum oil levels.
  - A fill plug equipped with a filter.
  - A breather, if necessary, equipped with a filter.
  - Preferable magnetized drain plug and a manually operated valve with a nipple or similar means, if necessary, to drain the used oil into an appropriate vessel without difficulty.
  - The plug and nipple or similar means should be designed so that the gear cases can be drained within a reasonable period of time.
- Shafts should rotate in ball or roller bearings. All bearings and bearing cases should be lubricated by means of standard screw-type lubrication nipples.
- Elements liable to come loose should be equipped with appropriate locking means. Aluminum or aluminum alloys should not be used for any mechanical equipment. Gear reducers should be subjected to a dry run in the factory in both directions.
- Hoist gear reducers preferable equipped with vibration sensor as a complete system to be connected to PLC
- **Planetary and sun gear reducers are not accepted.**

3-9-3 SHAFTS, PINS AND KEYS

- Standard shaft diameters and cylindrical shaft ends.
- Shafts should have two supports, which can easy assemble and disassemble by bolts , and flexible couplings used for all shaft couplings.
- For safety reasons, accessible shaft trains should be protected by means of removable or hinged covers.
- All keys should be perfectly adjusted and doubled wherever required by stress calculations or installation conditions.
-

3-9-4 COUPLINGS

- Rigid couplings should be prohibited.
- The types of couplings selected should permit easy assembly and disassembly.
- Although flexible couplings are to be used throughout, alignments should be carried out with the same precision as though rigid couplings were being used.
- Couplings should be placed under removable protective covers.

3-9-5 BEARINGS

- Bearings should be standard sizes.
- Bearings should be completely sealed, and joints should be designed and located so that the grease is forced to circulate through the bearing elements or races and exit by the joints opposite to the openings through which it is introduced.
- Bearings life time should be 20000 hours as minimum
- Type of bearings : SKF or FAG (EURO or Japanese)

3-9-6 BRAKES

3-9-6-1 Service brakes

- Hoisting brakes should be consisting of two main separated brakes (i.e. Double brake) for hoist motion, each one designed to permit, without any damage or slipping, the following:
  - To hold the dead test load.
  - To hold the live overload.
  - To hold the maximum load without of emergency braking.
- All brakes should be fail safe brakes.
- Linings should be designed for easy replacement.
- Exposed brakes should be effectively protected by means of housings or covers so that their operation is not affected by outside influences so that the safety of the personnel is ensured.
- All brakes should be of the positive-action type (locking in the event of power failures, pressure drops, etc.).
- Heavy-duty electro-hydraulic thruster disk brakes should be provided for main hoist.
- Electro- magnetic thruster brakes are preferable for gantry and trolley motions

3-9-6-2 EMERGENCY BRAKES

- Hoist motion should be equipped with emergency brakes to hold the maximum S.W.L during free fall and verify the dynamic test load according to F.E.M or JIS or equivalent and it must be fixed on the hoist wire ropes drum
- Emergency brakes should be provided on hoist system (with over speed sensor on wire ropes drum and hoist motor).
- Emergency brakes should be placed under removable protective covers

Note :

- All brakes should be have indicators for wear pad thickness .
- Bubenzer brakes are preferable

3-10 Double flangedTrolley wheels

- Wheels should be of identical one-piece steel construction and of a quality corresponding to their intended use and the recommendations of the F.E.M. Or (JIS) or equivalent simple means should be provided to make it possible to replace any one of the wheels of the crane quickly. In so far as possible, all wheels including drive wheels should be interchangeable.
- For changing any one of the trolley wheels it should be provided with jacking points to lift the trolley platform

3-11ROPE DRUMS

- Rope drums should be manufactured from forged steel or rolled steel.
- Drums should be designed for no fewer than three holding turns.
- Drums should be designed so that at least two grooves is free when holding the entire length of the wire rope.
- Grooves for the wire rope should be carefully machined and free of any roughness.
- The contractor should choose the pitch of the drums so that there is no friction between any two adjoining turns.
- The drum diameter and thickness should be designed according to F.E.M or (JIS) or equivalent standards
- The wire rope should be anchored to the drum means of a simple easily removable device requiring no special end fitting moreover the means used to attach the end of the wire rope to the drum should be capable of supporting 3 times the maximum load taking into account the friction resulting from the turns remaining on the drum.
- The anchoring means should be designed to hold the maximum load in the event the holding turns are accidentally wound off the drum with the wire rope remaining in the position in which it is normally used.

3-12 SHEAVES

- The locations of the sheaves should be chosen in such a manner as to minimize rope fatigue.
- Sheaves should be provided with simple, efficient and removable guiding means designed to preclude any crimping of the wire rope in the event it should tend to lay incorrectly.
- Sheaves should be mounted on sealed, easily removable rolling bearings.
- Sheaves diameters for hoisting, and the radius of the group relative to the rope diameter - should be according to the F.E.M or (JIS) or equivalent.
- Hoist sheave pitch and drum diameter should be to according to F.E.M standard.
- The sheaves must be located at easy reachable places to be easy interchangeable and preferable that all sheaves to be as the same size and supported **by One pin fixed by two removable cap**

3-13 WIRE ROPE AND HOLDING MEANS

- Extra-flexible, plow steel wire rope should be used minimum breaking load, and maximum tensile strength should be selected comply with F.E.M or (JIS), the hoist rope should have a safety factor of 6:1 based on the minimum breaking strength of the rope (centric load case considered
  - The lay of the wire rope should be such that it does not interfere with operation.
  - The contractor should grease wire ropes with a neutral lubricant.
- Wire ropes should be supplied with a certificate of conformity.
- For hoisting, it must be **8 wire ropes without sheaves on the head block**
- A system should be provided for adjusting the tension of the wire ropes and equalizing wire ropes.
- The crane should be equipped with arrangement for change wire ropes easily and safely. By rope reaving system

- The surface finish of wires for hoisting wire rope must be galvanized
- The type of wire ropes must be compacted outer 8 strands

3-14 TRIM /SKEW/SIDE SHIFT MECHANISM

- Machinery Should Be Designed to Compensate for A Skew ±5° , trim of ±3° and side shift ± 300mm in the gantry direction and to operate safely with a container having its center of gravity out of center as indicated under the design criteria (F.E.M). or (JIS) or equivalent) loading eccentricities by using hydraulic system
- **Note : A.C inverters drive system are not accepted in this system .should be classic control**

3-15 LUBRICATION :

3-15 -1 GENERAL REQUIREMENTS

The lubrication systems should be designed so that:

- Lubrication can be carried out without any danger to personal and in a minimum time.
- They do not interfere with the disassembly or removal of mechanical equipment
- There is no danger of damage when disassembling or removing the equipment.

3-15 -2 AUTOMATIC CENTRAL LUBRICATION

The central lubrication system shall be provided with electric pumps with counters.
An adequate number of pumps and reservoirs shall be provided, which shall be installed in very accessible locations and as close as possible to the lubrication points.
Pumps and reservoirs shall be dust-tight and provided with protective covers.
The type of equipment and its location and adjustments to be made shall be indicated on lubrication diagrams supplied by the contractor.
Seamless tube shall be used for lubricant line, and shall be installed at points which are not exposed to the dangers of damages from hard or falling object the inside diameter of these lines and thickness of this tube should be selected to carry the quantity and the pressure of the lubricant needed to do the job free of fault and reliable.
All greasing points can be lubricate by (**automatic central lubrication system and manual lubrication nipple**)

3-15-3 LOCATIONS OF THE AUTOMATIC CENTRAL LUBRICATIONS :

- Trolley
- Diesel engine gantry side
- Electrical room gantry side

3-15-4 GEAR CASES

Appropriate measures should be taken to ensure proper lubrication of mechanical parts when the equipment is started up for the first time after prolonged in operation.

3-16 HYDRAULIC EQUIPMENT

3-16-1 HYDRAULIC PLANTS

- In case of the hydraulic circuit must be equipped with special connections to satisfy easy measurement of temperature, flow rate, quantity and rpm.
- Outdoor tanks should be provided with breathers equipped with efficient filters in order to prevent the oil from being contaminated by dust.
- Tanks should be filled through an opening equipped with a permanent filter, which is at least as fine as the general filter. The fill opening should be provided with a plug and be designed for connection to a manually operated pump during filling operations.
- Minimum and maximum level indicator lights should be provided at a clearly visible location, which is not subject to shocks.
- In the event of hydraulic plants, which are unattended, a minimum level detector should be provided which triggers an alarm and / or stops operation
- All hydraulic plants must be equipped in closed panel with doors

3-16-2 DISTRIBUTION

- In so far as possible, the distribution valves should be mounted together on systems consisting of blocks with appropriate bores in order to preclude a profusion of hydraulic lines.
- Electric valves should be of the sealed type equipped with mechanical control buttons wherever necessary and Electrical control voltage is to be 24v dc.

3-16-3 CYLINDERS

- Rods of cylinders exposed to the effects of the weather should be protected against corrosion by means of an appropriate surface treatment.
- Mountings for hydraulic cylinders and their rods should be designed so that any transversal forces causing unusual bending or twisting are of Negligible effects

3-17 DOOR LOCKS

Two keys per lock should be provided for the doors of the driver's cabin, diesel room and electrical room.

All door keys should be interchangeable.

All hinged doors for electric room and operator cabin should be fitted with automatic hydraulic self-closing devices.

3-18 PAINT AND PROTECTION:

3-18-1 GENERAL REQUIREMENTS:

- With the exception of machined surfaces, all iron and steel surfaces shall receive an anti-corrosion coating.
- Surfaces to be painted shall be completely accessible after the various parts are assembled. Inaccessible areas shall be protected before assembly.
- The surface preparation of all raw steel materials must be carrying out in an automatic blasting machine.
- Steel structures, landings and platforms and access means shall be designed to permit rainwater to run off. Depressions and points where water can accumulate shall be prohibited.
- Box girders shall be sealed, and those parts of the inside, which are inaccessible, shall be protected before final welding in order to preclude corrosion and condensation.
- Box girders provided with access means, i.e., manholes, shall be protected under the same condition as the rest of the steel structure.
- A hole fitted with a plug shall be provided in the lower part of each of the above two types of box girders for the purpose of removing condensed water.

3-18-2 PROTECTION SYSTEMS :

Surface preparation:
Surfaces to receive protective coating shall be prepared by shot-blasting:-
SA3 for galvanization (Swedish scale).
SA 2.5 for painting (Swedish scale).

3-18-3 Protective Coatings:

- The inside surfaces of the operator's cabs shall be painted with washable paint. Hollow walls, hollow ceilings, box girders and the inside of wheel trucks and equalizers shall receive a heavy coating of an epoxy primer+ epoxy middle coat product wherever necessary.
- Elements to be painted shall be carefully cleaned, degreased and rinsed with fresh water wherever necessary before application of the protective coating.

3-18-4 Paint Quality:

- The first two coats should be applied prior to assembly.
- The necessary touching up should be done between each coat.
- Each coat should be applied following verification and approval by the client, either on the quality of sanding or on that of the previous coat.
- Shot blasting according to Swedish standard sa.2.5
- **Coat no.1**: immediately after the above shot – blasting process, all fabricated material should be automatically or manually coated primer- zinc phosphate epoxy -100 microns
- **Coat no.2:** after allowing the specified drying time (intermediate – epoxy with micaceous iron oxide (MIO)) -100 microns

- **Coat no. 3:**

- The paint system should be completed with the application of the final coat in colors as follows:
- The finish coat is a two- component polyurethane or modified polyurethane which is applied to an average of 50-60 microns.
- the total dry film thickness of the paint system should be 250-260 microns.

NOTE :-**the final coating is navy blue color.(RAL5010) FOR DEKHIELA cranes**

the final coating is orange color(RAL2010). FOR ALEXANDRIA cranes

3-19 PENUMATIC PIPE

- The RTG preferable equipped with pneumatic pipelines for the maintenance of the equipment's and the air should be provided from an external source on the ground level

CHAPTER IV ELECTRICAL specifications

4-1 General Requirements:

4-1-1 Description of Electrical System:

- The electrical equipment used is specially designed for the use in container handling cranes

A full electrical system for the RTG crane must include the following subjects:

- Design conditions.
- Driving motors for various crane activities are of AC type.
- Static inverter (ac vector control) for the control of ac motors operations
- Fault monitoring and diagnostics display.
- Main control gear.
- Extended crane management system.
- Lighting equipment for both inside and outside.
- The spreader supply cable.
- Power and welding sockets.
- Limit switches.
- Service crane.
- Voice communication system.
- Safety devices, fire detection system, alarm system and firefighting.
- Air conditioning and ventilation.
- Permissible voltage tolerance for the various electrical equipment and machinery must be as in the FEM standard or JIS or equivalent.
- The commissioning of crane control system must be implemented by the manufacturer experts of the control system company.
- Preference is given for the use of the same type of converter / inverter for all drives with different ratings so that an attached single main boards spare for all of them is possible.
- All low voltage circuit must be provided with earth leakage protection.
- All single-phase circuits must consist of Three wires (two pole + earth) and all two phase power circuits must be of four wires (three phase + earth) type.
- Each RTG motions (hoist &trolley &gantry) should be equipped with separate speed drives for each main motion (**share of drives between two motions are not accepted**).

4-1-2 POWER SUPPLY:-

- The electric supply to the crane from diesel engine driven AC-generator.
- The output of the alternator will be sufficient to start and accelerate simultaneously both the hoist and trolley traverse motion to full speed when handling the rated maximum load and to supply auxiliary circuits (lighting, heating, ventilation, air conditioning and communication).
- The AC alternator should be provided with the following protective circuits:
  - Circuit breaker.
  - Over current.
  - Under voltage.
  - Over voltage.
  - Over temperature.
  - Short circuit protection.
  - Earthing protection

Main data of the AC-generator:

Duty	***Continuous – S1***
Insulation	***Class H***
Frequency	***50 HZ***
Protection	***IP 23***
Country of origin:	***European union***

4-1-3 DESIGN CONDITIONS

- All electrical equipment should be designed to adapt for 6000 crane operational hours per year.
- Equipment's should comply with the latest version of ICE, BS, FEM, DIN standards or equivalent.
- All equipment's should be designed, manufactured and assembled to operate under humid atmosphere and marine conditions with severe corrosive environment e.g. Water proof, water tight and dust proof.
- Equipment exposed to condensation should be sealed inside cubicles fitted with space heaters.
- Special care shall be taken so that the operation of equipment exposed to condensation is not affected, e.g. , heating of sealed electrical cubicles and cabinets wherever necessary .

Maximum Temperature	***50º C***
Maximum Humidity	***100 %***

- Where a controlled environment is required, suitable air conditioning, humidifying, dehumidifying equipment should be installed with proper ratings.
- All outdoor connection and junction boxes must be of stainless steel material.
- All indoor control connecting wires are to be fire proof.
- All electrical cables penetrating ducts must be well closed, airtight, and watertight for outdoor ducts.
- All electrical junction boxes must be equipped with cable glands to assure air tightness and water tightness for outdoor junction boxes.
- Maximum measures for the safety of equipment and personnel should be taken during design; this includes redundancy, cross monitoring or any other extra feature.
- Modularity in the design should be implemented, so that interchanging different parts is possible.

4-1-4General Installation Diagrams :

Utility system diagrams for the equipment shall be prepared in accordance with the following principles :

- Subdivision of circuits to limit problems resulting from short circuits and overloads and to facilitate the localization of insulation defects .
- Separate circuits for motors, lighting, controls and signals,
- Main switch for equipment movement circuits which allows auxiliary circuits to continue functioning, **i.e. controls, lighting , heating etc.**

4-2 Electric House :

- Thermally and sound insulated noise inside room should be according to F.E.M
- The fire proofed electric room should be of sufficient space for maintenance and repair
- Adequate space and passage should be maintained for the maintenance and inspection work and easy to take off any part from the room (inverters, switches,...)
- two air conditioning in electric house (Egyptian made)
- The panel and sealing according to DIN / VDE if circulating is required for cooling a suitable fan must be provided
- Each Components in the control panel is clearly labeled with the function and manufactures main plate.
- The wall, sealing and floor must be isolated.
- Hour meter for each motion, voltmeter and frequency meter, counter for twist lock must be connected to the panel.
- Anti-condensation are installed in the panel.
- The panel is attached to the floor and ruggedized for the shock loads and vibrations imposed by crane service.
- **A type of protection beams should be installed on the outer of the electric room housing on the crane legs (truck lane side) for protection the room from emergency accidents**

4-3 LOW VOLTAGE SWITCH GEAR

- Sheet metal enclosure with IP 40.
- Main circuit breaker, air type draw-out type, motorized, over current protection with definite time, inverse time settings and adjustable magnetic, reverse phase indication, over and under voltage protection.
- All protection equipment must be of the solid state type.
- Instrumentation required should include the following devices:
  - Voltmeter for phase and line values.
  - Line current measurements.
  - Frequency meter.
  - Necessary indicators for circuit breaker position and lamps for the existence of supply.

4-4 THE SPREADER SUPPLY CABLE

- The spreader power and control cable should be of heavy duty multiple core flexible cable with cores of minimum cross sectional area of 2.5 mm2, for use with spreader cable baskets.
- The spreader cable must be equipped with heavy-duty outdoor plug and socket with class of protection not less than IP 55.
- The plug and socket will be tightened together through the use of bolt and nut.
- The spreader cable should have 25 % standby conductors.

4-5 LOW VOLTAGE CABLE

- All conductors should be made of electrolytic copper; their sections should be in accordance to the requirements of international standards. For circuits that are not detailed herein, the minimum 2.5mm² and current density of 3a/mm2 for power cables, for control cable minimum 1.5 mm² and 0.25-1 mm² for data cables according to manufacturer's requirements where there are vibrations, connections should be made of extra flexible cable.
- All remote control signal cables and all cables of bundle or ombilic system preferable have 25% stands by conductors or according to international standards connected to pre-installed terminals.

4-6 DRIVING MOTORS

- All driving motors should be A.C squirrel cage motors.
- All motors installed outdoor or in exposed location should be of the totally enclosed type with IP 55 as a minimum.
- The indoor motors have a degree of protection IP 23 minimum.
- The motors >7.5kw should be provided with space heaters and temperature sensors in the winding.
- All motors insulation should be not less than class F.
- Motors should be suitably rated for the expected full load with an over load capacity of 50 %.

- All motors >7.5kw should be fitted with two thermistors type temperature sensors to measure winding temperature for motor protection (the first for warning and the second for tripping the circuits).
- Hoist motor should be provided with over speed protection.
- Mechanical construction should be suitable for the application.
- All motors should be designed and manufactured by a reputable maker and suitable for crane application for humid and salty climatic conditions.
- The duty factor and duty type for hoisting preferable to be 100% S1.
- The duty factor and duty type for trolley preferable to be not less be 80% -S2.
- The The duty factor and duty type for long travel preferable to be not less than ED 40% S2.
- Mechanical brakes should be carefully designed and fitted according to international standards of service and safety.

4-7 AC DRIVES

- The drive application software offers a standard range of modular functions, which show safer, faster craning operations, easier fault insulation and simpler repair and maintenance.
- The drive controller should satisfy the following required safety functions:
  - Mechanical brake control.
  - Torque proving.
  - Fast stopping.
  - Torque monitoring.
  - Fault handling
- The controller must fulfill all needed necessary protection.
- The ratio between A.C drives and motor power should be at least 1.2 times
- A provision should be stated – to avoid interference with communications lines due to carrier high frequency in PWM (pulse width modulated) inverter.
- Each motions (hoist &trolley &gantry) should be equipped with separate A.C drives for each main motion (**share of drives between two motions are not accepted**).

4-8 PROGRAMABLE LOGIC CONTROL (P L C)

- This system should provide the link between human operator and various crane functions. This part should be carefully engineered to provide simple and safe system operation through man / machine interface.
- The required system should be based on a PLC system control concept to monitor all safety permissive signals / interlocks and provide the correct safe sequence for all crane functions.
- The control plc should monitor all the driver's commands, scan all system components to investigate their conditions and then performs the necessary action.
- All electronic modules should be treated to eliminate the possibility of oxidization and fungous growth.
- All modules are to be carefully secure with screws to prevent dislodgment due to vibration.

- Supply to electronics to be filtered to prevent damage and malfunction due to transient on the power and auxiliary circuits.
- The system should consist of the following main items:
  - The man/machine interface both input and output
  - The necessary sensors to monitor different functions in the crane
  - The main control PLC that should contain: -
    - A properly rated power supply
    - CPU module with necessary flash memory.
    - Input module with capacity and type suitable for the application.
    - Output module with capacity and type suitable for the application.
    - All accessories including back planes, connecting cables and catalogues.
    - A programmer unit complete with software and simulators.
    - Watch-dog timer to monitor processor failure to shut down the system for safety.
- The CPU communicates with field equipment and the actuator sensor in such a manner as to realize a quick response to signal changes, fast cyclic data exchange and also short Transmission lines.
- Necessary final control elements, relays and contactors to perform the functions required.
- Necessary displays and indicators to give the operator a complete picture for what is going in the process.

4-9 DIAGNOSTIC SYSTEM

- The control system includes two diagnostic levels.
  - The first level is executed in the PLC and displayed in the electrical room.
  - The second level is presented by the diagnostic functions of the drive controller.
- For the first level there is in the electrical room a display a key Board, the information is presented through different screens which are selected by the key board, the given information's include, operation logs, e.g. Number of container handled, containers weight average transportation time, drive status, e.g. Use time of mechanisms.
- For the second level each drive includes a display, which permits review of: set parameters and displays of diagnostic messages. The messages concern abnormalities that may occur in the controller, motor circuit or other external inputs of the controller.
- Fault diagnose, tells why a drive does not start or stop.
- Fault and diagnostic messages involve control internal faults, motor, interlocking, computer system and communication problems.
- The fault and diagnostic messages are stored in a memory and displayed in the order of occurrence.
- A parallel diagnostic display to be installed in the operator cabin

4-10 SOFT WARE OF PLC AND SPEED DRIVES

- Tenders must submit the following items:
  - Brand name and version of PLC and drives software programs.
  - The name, address and fax number of the company that establishes all Software of the crane and person who can make contact.
  - The cost of software and hardware items for PLC and drives.
  - An offer for technical support of all software for two years following the five (5) years guarantee of the software as follows:
  - Technical support through fax or phone should be free of charge.
  - Technical support needs expert visit as ACCHCO request, the cost should Be specified per visit / day.
- A technical support contract according to the suggested offer conditions will be signed with the main contract.

4-11 CRANE MANAGEMENT AND MONITORING SYSTEM (CMS)

- The system hardware includes an industrial fixed personal computer (IPC), a display led monitor, (20" at least) , keyboard , mouse and a laser wireless printer per crane
- **one laptops per crane** including crane's software and catalogues
- All crane's software is original and licensed
- The printer able to print every presented screen and collected data records
- The computer is connected to the drives and the PLC through the communication system

Note: a suitable UPS must be installed per crane to maintain the PC

The crane monitoring and management system shall be the latest available model of the drive manufacture version with all of the diagnostic, production, operation and maintenance modules. Maintenance schedule and pop up shall be incorporate in the CMS system.

- The system shall have the capability to monitor, record and present crane productivity data such as number of containers handled, containers moved per shift, average weight of container moved.
- Monitoring the drive function storing data such as current, voltage, speed reference and displaying the status and position of all crane drives and motions.
- Also can storing, display and printing the faults log for at least 200 fault events with the time of occurance.
- Crane Management System (CMS) shall be provided in the electric control room on each RTGs and shall fulfill the following functions:
  - Display the status of crane (hoist, gantry, trolley, wheel turning, skew, trim, etc).
  - Crane utilization, data values like operating time, down time, idle time, total on line time, etc are presented
  - Crane production, data values like number of containers loaded and unloaded,

average weight, average cycle time, etc are presented.

- Display fault messages
- Diagnostic the crane fault.
- Displaying limit switches and sensors status
- Load cell display
- Inverters fault codes
- Spreader status
- Communication faults
- Operators input like (joystick reference , push buttons and selectors)
- Showing the production data on each crane.
- Maintenance schedule assistant for preventive maintenance handling is triggered by the equipment and scheduled working hour schedules.
- Wind speed display .....etc
- Temperature for each motors (hoist, gantry, trolley)
- Display the operating hour for (hoist, gantry, trolley)
- Display and storage of CCTV System
- Display the status of the diesel generator set

4-12 LED LIGHTING

4-12-1 ACCESS and walkway LIGHTING

- Lighting provided is to operate from 220 VAC source, and designed to produce a maintained continuous illumination of average 100-lux/on all ladders, stairs, walkways and platforms.
- The lighting fixtures are rough service and anti-vibration types.
- Lighting is controlled by switches and in sufficient extend by impulse-relays so that it will be convenient to connect the lighting on and off.
- Miniature type LED lamps will be used.
- Lighting cables must be earthed.

4-12-2 DIESEL ROOM AND ELECTRICAL CONTROL ROOM

- Lighting in the houses utilize LED fixtures are arranged and dimensioned to provide a maintained average illumination not less than 200 lux.
- Lighting fixtures are positioned to eliminate equipment shadows on the floor.

4-12-3 OPERATOR'S CAB

- Lighting in the operator's cab is LED and will be designed for a maintained average illumination on operating surface not less than 150 lux.
- Local switching is provided at the access point to the cab and includes dimmer controls.

4-12-4 GIRDER LED FLOODLIGHTS

LED floodlighting is furnished to provide a maintained minimum illumination in the work area under the crane of 300 lux as minimum:

4-12-5 LED GANTRY LIGHTING

- A maintained minimum illumination level of 200 lux at the working area under the crane and 300 lux on the adjacent area within 15 meters of the crane center line along the yard.
- Two led floodlights should be installed above the outer of electrical room housing for exposing the truck lane
- Two led floodlight should be installed above the outer of diesel engine room for exposing the containers in stack

4-12-6 LED TROLLEY LIGHTING

- Two additional LED floodlights should be installed on the Operator's cab to light the area directly below the trolley to provide maintained minimum illumination in the ground level under the spreader of 300 lux.
- LED floodlights are installed to eliminate shadows cast by the crane.
- Fixtures are installed on vibration damping mountings.
- Fixtures include replaceable copper-free aluminum reflectors, cast aluminum housings,
- All LED floodlights are equipped with safety chain and mounting which allow one man to remove or install light system components.
- LED floodlights are controlled from the operator's cab.
- An additional LED lighting for the trolley area to be able for carrying out the maintenance.

4-12-5 CONTROL PANELS

Each control panel has internal light with a light switch.

4-12-6 EMERGENCY LIGHTING

- A self-supporting LED emergency lighting fixture with built – in rechargeable batteries, battery, charger, inverter, test button and lamp(s) should be provided to cover the drivers cabin, electrical room, diesel room and all staircase and ladders to operate automatically in the event of power failure and should be of at least two-hour rating. Full details of the system and number of outlets provided should be submitted with the tender.
- Two Portable hand lights per cabin and room are located in operator's cabin and in the diesel room and e-room should be provided. This portable hand lights have rechargeable battery and automatic charger the battery capacity should guarantee the use time to be 4 hours.

4-13 AIR CONDITIONING

- Driver's cabin and electrical control room should be provided with an adjustable split air conditioning.
  - Two Split air conditioning in the electrical control house
  - One Split air conditioning in the driver cab.

These will be able to keep the inside temperature at not more than 25ºc, when the outside ambient temperature is 45ºc - 50ºc.

These should be Egyptian made and guarantee form local agent in Egypt.

4-14 Safety Devices:

4-14-1 Movement Limits:-

Limit switches shall be provided for all movements with specific limits for the purpose of stopping the movement and then resuming movement in the opposite direction.

It shall be possible in all cases to achieve the contractual maximum movement no matter what the speed at which the limit switch is activated. The limit switches shall be backed up mechanically activated overrun contactor which are completely independent both mechanically and electrically of the limit switches.

4-14-2 Emergency Stops:

Positive-acting emergency switches shall be provided at extremely visible and accessible points.

4-14-3 Load Scale:

Each unit shall be provided with one or more digital devices designed to make it possible to measure the load under spreader and shall be located at the operator cabin

4-14-4 LIMIT SWITCHES

- The crane should be provided with properly designed limit switches.
- Every limit switch should be positively actuated, fitted and wired, fail-safe limit switches.
- Limit switches installed outside the diesel or electrical control rooms should be of heavy-duty, oil tight, watertight, dust tight and drip tight in IP 55 enclosure.
- Limit switches should be selected and supplied to ensure trouble-free operation under all conditions preferable (proximity) limit switches.
- Pre-limit switches should be incorporated to slow down the speed before reaching the final limit switches. Both switches should be duplicated as a fail-safe measure.

Notes for Miscellaneous Safety Equipment:

The crane shall be provided with appropriate means to provide completely safe access to all necessary points for maintenance and operating personnel.

System which employs a source of energy shall be provided with a positive-acting safety device for the event that the source of energy ceases to be available, e.g., power failure, pressure loss, etc.

All safety equipment stipulated in applicable regulations shall be provided.

4-14-5 GENERAL SAFETY REQUIREMENTS:

In addition to safety devices specified above it is indicated that:

- Guard beams shall be provided at exposed crane components
- Visual & audible warning continuously during gantry travel.
- The electrical equipment shall be protected from high temperatures and excess speed.
- Emergency stop pushbuttons shall be located in the:
    - Driving cabin
    - On both side of ground level
    - Trolley platform.
    - Diesel engine panel (main contactor off)
    - Diesel engine panel (shut down the diesel engine).
    - Electric room.

Note: They shall be provided in order to cut off the driving mechanism and act on the brakes

4-14-6 CRANE MOTIONS

Apart from the protective and safety devices required by work safety and hygiene regulations for motors, control panels, etc.--the crane should be equipped with the following accessories on account of their specific container handling function:

4-14-6-1 GANTRY

- Gantry Steering Correction:

  The gantry steering correction for gantry travel will be by a hand operation by joystick through AC inverter. (trolley joy stick with gantry steering stick In one stick are preferable)

4-14-6-2 ANTI COLLISION

Device stopping the crane automatically during gantry motion to prevent collision with the:

- Cranes (radar ranger dual zone (slow down / stop) for the crane to crane
- Containers and trailers (ultra sonic devices on inner side of the sill beam in each corner)
- Trailers (ultra-sonic devices for the outside anti-collision in each corner)
- Trailers and humans on the long travel gantry (radar – based dual zone adjustable (slow down / stop) filed narrow beam sensors for detection of moving and stationary target from 1 to 20 meters)(one per each corner of the crane)

4-14-6-3 3D LAZER CRANE ANTI COLLISION SYSTEM (ACS)

- This system consists of 3D laser sensors with a feature of cone detection with focus on travel paths with a collision avoidance distance up to 30 meters with varisized objects
- Scope of work:
  1- Crane to crane anti collision
  2- Crane to obstacle anti collision
  3- Wheel turning (90 degree) anti collision

4-14-6-4 HOIST

- lowering motion equipped with ultra sonic sensor installed below the spreader for slow down motion when the motion near to catch the container
- A hoist reeving system to be installed above the hoist drum to facilitate the operation of changing wire ropes
- Over load device when the load under spreader more than 40 tons the hoist motion cut off immediately.
- Slow down limit switch for high, low positions.
- Stop limit switches-up and down.
- Stop safety limit switch -up.
- Slack rope tension device.
- Starting hoist with low acceleration until the hoist rope is under tension, then change to a higher acceleration to reach the normal hoist speed.
- Emergency brake operating directly on the rope drum.
- Over speed sensor fitted on rope drum.
- Over load protection (load cell).
- Emergency stop push buttons (mushroom type) to be operated from ground level, electrical room, diesel room, operator's cabin and trolley platform.

4-14-6-5 TROLLEY

- Speed limit switches (slow-down) near bumper zone.
- Stop limit switch, forwards and backwards.
- Bumpers at end of rail.
- Pin for trolley parking.
- Trolley left and right access upstairs limit switches

4-14-6-6 Stack profiling system (SPS):

- 2D and 3D laser scanning to realize profile-based motion control preventing collisions , accidents and optimizing spreader motion control in working area

4-14-6-7 OPERATOR'S CABIN

The cabin will be equipped with fault monitoring and display system

- Emergency stops.
- Lights indicating:
  - Twist-locks open-closed.
  - Spreader in position. Mentoring
  - Pump in operation.
  - Control-on/off.
  - Diesel and generator operation.
- Separate operating hours indicators (crane hour indicator, hour indicator for hoist, trolley, long travel) these meters can be situated in the operator cabin and in the electric house rest button.
- Safe load panel. (load cell)
- A safe load indicator should be provided to clearly Indicate to the operator when the load being lifted approaches the "safe working load "of the crane.
- The safe load indicator should include the following features: -
  - indicating the container weight reading with accuracy ± 5 %
  - An enunciator panel to give audible and visual warning in the cab if the actual load exceeds the max S.W.L.
  - Provision of a high-speed device, which will cut out hoisting motion when the maximum "safe load" is exceeded, leaving the lowering motion operative.
  - The audible and visual alarm should be operated from the electrical supply available to the crane, the safe load indicator equipment being energized when the main isolating switch is closed without the employment of further isolating switches. The circuits should be adequately protected by circuit breakers as required by the relevant regulations

4-14-6-8 DIESEL ENGINE

The engine should be equipped with the following protection:

- Over speed protection.
- Emergency stop push botton.
- High temperature protection (Coolant).
- Low pressure protection (oil)
- Low level protection for fuel, oil, and coolant
- The alarm should be in the driver's cabin and at the diesel
- Over voltage protection

4-14-6-9 CONTROL PANEL

The control panel should be equipped with the following protection:

- General main switches.
- Door opening interlocks.
- "in tension " warning light.
- Voltmeter.
- Time hour meters for each motion.

4-14-6-10 GENERAL RESET

A part from all the safety devices mentioned previously that the crane is equipped with a general reset tripper for protection against rough handling etc. In any movement located at both operator's cabin and control panel.

4-14-6-11 BRAKE FAILURE ALARM SYSTEM

- A brake failure alarm system should be provided for the main hoist brakes, hoist emergency brake and trolley brakes. In the event a brake fails to release within 2 seconds after its associated motor is started, the crane operator must receive an alarm signal which can be silenced only by pushing a reset push button.
- Each gantry brake must have auxiliary interlock that must prevent operation of the drive unless all brakes are released.
- Each brake (hoist and trolley) should be includes a wear detector to stop movement in case of pad wear.
- Emergency brakes should be mounted on hoist drum for safe operation.

4-14-6-12 ALARMS AND WARNING DEVICES

- Motor driven siren with push button control from the cabin.
- Fault finding device with alarm enunciator.
- Horns automatically actuated during travel.
- Sound and visual alarm system for crane overload.
- Automatic warning lights for crane in motion (audible-visual electronic buzzer) in red color are fitted near the four legs at ground level and they are activated during travelling.
- Anemometer with wind speed indicator and contact for crane stopping during dangerous wind.

4-14-6-13 BUFFERS

- buffers and end stops should be provided for trolley. Buffers should have sufficient capacity to prevent injury to personnel or damage to equipment when colliding with trolley runway.
- The crane buffers is hydraulic or (metallic with single or double spring)

4-14-6-14 SERVICE CRANE

- The RTG should be equipped with 360 deg rotating service crane electrically controlled located on suitable position on the top of the trolley platform this crane should have electrical hoisting, cross travel and long travel and designed to lift items from the ground level to trolley platform.
- The crane preferable capable of lifting a load at least 500 kg capacity.
- The crane should be designed for low maintenance with built-in switchgear, fail-safe
- Electro-magnetic shoe brake and hoist upper and lower limit switches. The hoisting and lowering speeds should be approximately 7 m/min.
- A pendant attached to and moving with the hoist should be fitted for operating the hoisting motion.

4-14-6-15 INDICATION PLATES

4-14-6-15-1 CRANE IDENTIFICATION

Two indicator plates of an approved design should be provided; places to be fixed in approved positions clearly visible from the ground on each side of the crane and carrying at least the following information in letters and figures legible from ground level

- The purchaser's identification (this will be furnished on application).
- The crane capacity.
- Site identification crane number.
- Manufacturing dates.

Provide on each spreader an indication plate carrying at least the following information:

- Works identification.
- Site number and spreader rating

4-14-6-15-2 SAFETY AND SECURITY INSTRUCTION

- The crane must be provided with safety instruction in both Arabic and English languages in the following positions: -
- Control room.
- Diesel room.
- Operator cabin.
- Bogies
- Safety instruction must include treatment procedure for electric shocks.

4-14-6-15-3 MARKING AND LABELS

- Contractor should provide particulars of the markings for approval. In the case of machinery and plant in general, marking should appear on the main castings or on plates attached to them.
- Every cable should be fitted with an approved cable marker corresponding to the label of the terminal to which the cable is connected.
- Plastic labels with (English languages) fitted on every controller, contactor and switch gear cubicle, panel board, pilot and signal lamp, push button motor, motor starter, resistance

- Unit and switch, a non-tarnish cast or engraved label of approved size, wording and design clearly indicating the function of the component concerned.
- If laminated plastic is employed, the face should be white with black engraved lettering. Internationally recognized standard warning system plates to be used where applicable.
- Label every contactor, circuit breaker, etc. To correspond with the wiring diagram.

4-14-6-15-4 LANGUAGES

All text instruction should be in English.

4-14-6-15-5 MAKER'S DRAWINGS TO ACCOMPANY THE TENDER

The tender is to be accompanied by the tender's drawings, sufficient to enable a proper appraisal of the tender.

4-14-6-15-6 SUPPLY OF SPARE PARTS AND REPAIR FACILITIES

- It is preferable that the makers of all mechanical, electrical and electronic equipment to be installed in the crane are represented by local agents in Egypt and these local agents carry in stock adequate supplies of required spare parts. It is also preferable that these local agents are able to carry out repairs to the equipment for which they are agents.
- Tender should present price list for spare parts mentioned in (chapter VI part III) that to be including (items names, item number, unit price) in separated offer. Also the supplier is committed to provide the necessary spare parts specially the critical ones upon request to operate the cranes for not less than five years.
- The contractor should present a file of conformity and testing certificates for structural steel, wire rope and manufacturer
- Testing certificates for diesel engine, generator, motors and electrical and mechanical equipment's.

4-15 Electrical outlets :

-The welding sockets (400v 3 phases + N - 63 A) will be equipped at the following locations:

- at trolley platform
- at ground level (one in each sill beam side)
- Diesel room

- The outlets socket (220v) will be equipped at the following positions:

- Electric room
- trolley platform
- diesel engine platform
- driver cabin
- ground level at each side

- The stairs and access walkways will be equipped by lighting by watertight seal.

- 24 volt DC / 20 A outlet will be equipped at the following positions from separate power supply (not dc diesel engine batteries):
    - electric room
    - trolley platform
    - diesel engine platform
    - driver cabin
    - ground level at each side

4-16 PANELS AND JUNCTION BOXES :

- ***4-16-1 outdoors :***

  Cubicles, junction boxes and panels containing electrical equipment shall be made of stainless steel on both sides Cable entrances shall be tight and shock-resistant

- **4-16-2 *Indoors :***

  Indoors cubicles, junction boxes and panels containing electrical equipment shall be stainless steel.

  They shall be equipped with interior lights wherever necessary. Terminal blocks shall be provided with 10 % more terminals than are immediately necessary for future use

4-17 Communication system :

Each crane have a communication system with 6 stations at:

- Driver Cabin
- Electric house
- Diesel engine platform
- Trolley platform
- Two units (one at each side of two sill beam)

Notes :

- A high quality telephone system with an external power supply should be permanently installed between the operator's cab, the diesel room, electrical room, diesel engine platform , trolley platform and two sides of the sill beam
- Loudspeakers. microphone and horns of weather proof and corrosion resistant should be located so that the crane operator has a one-way communication possibility with persons on the area under crane

4-18 VHF system :

The cranes should be equipped with complete unit of VHF fixed system **(ICOM- TYPE: IC-F5023H)** per crane at the driver cabin

- The VHF required should be with frequency range 136-174 MHZ with separate bill and guarantee for local agent in Egypt

4-19 FIRE PROTECTION

4-19-1 Manual fire extinguisher :

CO2 gas hand held Fire Extinguishers at:

- Elect. Room entrance

Fire dry chemical hand held extinguisher at:

- Operator Cab
- Trolley platform.
- Diesel engine platform
- Diesel side and electrical room side ladder entrance

4-19-2 Automatic Fire Detection :

- The crane will be equipped with automatic fire detection for two zones (electric house and diesel engine house) each zone consists of one thermal detecting type and smoke detecting type.
- A smoke detector should be installed in the operator cabin
- The signal will be sent to the PLC crane control
- Early detection of the fire and giving a warning to everyone that there is a fire in the crane
- Warning light and warning sound installed with system
- The fire protection system should have a batteries connected automatically when the engine stopped.

4-19-3 automatic fire search system in the electrical room

- fire search cylinders with a valve attached to a sensor hose
- Continuously pressurized with a pressure gauge on its end
- In the event of a fire, the hose is cut off Automatically and discharging automatically After emptying, the hose is replaced And refill this cylinder using it
- complete Cover electric room power and control areas
- Type of gas is FM200

4-20 CCTV system

The crane should be provided with:

- A set of four cameras high-contrast, auto-focus, anti-vibration color 1080 HD video cameras, IP 69k for gantry movement
- One video camera installed inside driver cabin
- One video camera installed below the trolley for viewing the spreader and connected to another monitor 20 inches fitted at the left of driver cabin
- four gantry cameras connected with one monitor 20 inches fitted at right of driver cabin
- One video camera installed inside the electric room and displayed in the CMS monitor.

note :

- The seven cameras record the last One month for all the view taken by the cameras for this time and repeat this period automatically and store the video recorded automatically to the computer in the electrical room which we can use it as a separate video display
- The camera system should be protected from any noise affected on the resolution of the video displayed on the monitor in the driver cabin

4-21 emergency external POWER SUPPLY outlet :

The crane shall be equipped with shore supply outlet (power supply available is 440 v 3 phase 50 Hz) to supply emergency external electric power for the following situations :

- The crane emergency motions (hoist/trolley/gantry) incase of the failure of the diesel engine or generator
- Heaters of electric motors and generators.
- lighting
- Air conditioning.
- Battery chargers.
- service outlets.
- PLC Control circuits
- Service crane.

4-22 E-ROOM STATION MAINTENACE PANEL :

- This panel is capable of :
  - making hoist movement
  - Making trolley movement
  - Making gantry movement
  - Emergency stop
  - starting and stopping diesel engine
  - main contactor on and off
  - reset button
  - wheel turning mode (manual and automatic)
  - spreader / over travel bypasses
  - flood light and walkway lighting push buttons

4-23 DGPS (Differential Global positioning system)

The crane should be equipped with DGPS for the following.

- Send data to TOS system CATOS with XML and API messages
- Showing the crane GPS Coordinates X and Y position
- Send data (Crane ID, Real-time, idle-time, Engine hours/day, Fuel consumption/day…) to ERP via API (JSON/XML data)

API Connectivity: Cellular (4G/5G) Or WIFI capabilities to send the data to ERP Systems.

CHAPTER V
TESTS AND ACCEPTANCE

5-1 INSPECTION AND TESTING

5-1-1 INSPECTION AND WORKSHOP TESTS (BEFORE DELIVERY)

- The tendered should identify in his offer the detailed inspections and tests to be carried for the assembled crane at his own facility and factory tests of the individual equipment's (diesel – generator set, brakes, motors, gear reducers, switch gears, plc. … etc.)
- The inspection and tests should be carried out under control and responsibility of the supplier and at his expense.
- Tests in the presence of the ACCHCO representatives, supplier representatives and the international society will be defined during the contract stage (GL, RL…)
- Place of inspection and tests at the supplier's factories
- The contractor should submit all approved factory test certificates for all equipment's (spreader, diesel engine, generator, drives, brakes, load cell, emergency, inverters, etc.)
- ACCHCO representatives are three groups as item (1-14) and the inspection period for each group is two weeks.
- Electrical control panel boards.
- drives and P.L.C.
- Spreaders
- Motors, generator and diesel engine
- Welding tests
- Gear boxes
- Inspection for all crane parts and function test before shipment.
- Full accommodation and internal transportation, air tickets will be on behalf of The contractor

5-1-2 ACCEPTANCE TESTS AT PORTS OF ALEXANDRIA and DEKHIELA

- All equipment, personnel required for proper and complete execution of provisional acceptance tests of the cranes and their equipment's should be supplied by the contractor without additional costs.
- Acceptance test at Alexandria and Dekhiela port will be performed by the contractor, ACCHCO engineers and the international society.

- These tests should be performed under the responsibility of the main contractor. The charge of international society in Egypt will be paid by ACCHCO.
- Acceptance test in Alexandria and Dekhiela port will be performed as follows:
- Before acceptance, each RTG crane should be subjected to tests so as to check the stability, speeds and performances of the crane, the accuracy of operations, and generally speaking, all the conditions prescribed under the present document.
- The tests should be carried out under control and responsibility of contractor and at his expense. They should be developed according to a schedule stated by the contractor.
- The electricians, mechanics, drivers and the engineers required for the tests should be assigned by the contractor without additional costs.
- Any load required to carry out these tests should be supplied by the contractor.
- Acceptance tests report (4 copies) should be supplied one month before the tests.

5-1-2-1 CHECKING

The following checks should be carried at site: -

- Assembled parts (sleeves, welding, etc.).
- Machining tolerances and quality.
- Protections from corrosion and bad weather effects (wind, rain, etc.) For all mechanical and electro-mechanical parts.
- Easy maintenance, lubrication and visibility of oil levels, easy supervision of fragile elements, etc.- -
- Standardization of elements and devices, application of standards and regulations insulation of circuits and machines.
- Accordance of the equipment, structural members, etc. --- with the drawings and diagrams and requirements of this document.
- Marking of conductors, cables, units, devices, etc. --- and respect of the operation and safety instructions.
- Operation of the various safety systems.
- Operation of the various monitoring systems.
- Operation of the heating, air conditioning and ventilation plants.
- Lighting fixtures.
- Intercom and radio equipment.
- Lift operation.
- Protection tests of diesel engine and generators

5-1-2-2 NO-LOAD TESTS

It will be carried out with no load but with the lifting beam and telescopic spreader, moving the spreader and the crane (translation) in various positions for at least one hour.

During the speed tests and when they have been completed, the following should be checked:

No-load in the various motions.

Operation of the various mechanical and electrical safety devices (travel limit switches, emergency stops, etc. ---)

Balancing of the rotating parts (drums and particular motor rotors,) and the proper winding of cables onto the drum and winches.

Operation of controls, indicators, and of the various alarms and monitoring devices.

The mechanical behavior of components: no vibration or oscillation moderate noise, etc.--- (measuring these figures).

Temperatures of bearing and of the various moving components.

Motors (heating, starting current, current after starting, starting time, speed, insulation, power factor, etc.) According to the regulations in force (in particular to FEM or (JIS) or equivalent).

Rating and operation of the protection relays and fuses in terms of the equipment protected and of the homo polar protections.

Regulation, reaction time, absence of pumping or changes in regulation.

5-1-2-3 SPEED TEST

Six measurements should take with loads of 22.5 tones, 30 tones, and 40 tones to measure the speed of the various motions.

The measurement should be taken from 0 point including starting and stopping.

5-1-2-4 DYNAMIC TESTS

Loads for dynamic tests should be according to F.E.M standard

The crane operation and the performances of the gears and devices, namely the brakes and travel limit switches, must prove complete satisfaction.

The measurements should be taken from 0 point, including starting and stopping.

5-1-2-5 RESISTANCE TESTS

The cycle as per standard cycle tests should be carried out without stop for 4 hours with a load of 40 tones, all movements being controlled simultaneously +translation.

At the end of the test:

The temperatures of the different parts of motors, coils of brakes and relays, contactors, resistors and in general, of all the switch gear should be less than the maximum temperatures prescribed for each unit by (FEM or (JIS) or equivalent) standards and should not represent a heating in relation to the ambient temperature that exceeds the temperature prescribed under same regulations

The temperature of bearing should not exceed by more than 20 c the ambient temperature

No abnormal heating should be detected on brakes. Same for reducers.

Power demand should be checked.

The behavior of the various mechanical parts should be checked.

The temperature in control cabins and in the diesel rooms should be checked

The various safety systems should be checked besides main tripping tests should be carried out.

5-1-2-6 TESTING THE SPREADER

Dynamic tests (according to F.E.M) of the rated load should be performed for one hour on each spreader.

Operating tests should also be carried out for four hours' period then the following should be checked:

- The operation
- No swinging
- The operation of the various safety and monitoring devices and interlocking.
- Rapid and easy operation.
- Remote controls and signals.
- Behavior of the rope drum.
- Operation of the hydraulic power system and of the associated circuits.

All prescribed tests and supervisions should also be carried out in the works for the tests that cannot be carried out on site.

5-1-2-7 LOAD CELL TEST

The following should be checked:

- Check the weight reading accuracy.
- Check over load alarm.
- Check overload cutoff.

5-1-2-8 OPERATION TESTS

- The test should consist of loading / unloading containers during one complete shift of 8 hours after the above tests have been carried out.
- During and after the test that should be performed for not more than 16 hours, each of the measures and supervisions listed under no load tests and resistance tests can be made again partly or as whole with full load
- During the last hour of one of the tests, a performance test should be carried out. It should consist in a series of loading or unloading in whole or loading or unloading on the ground under optimum operating conditions to check the performances guaranteed by the contractor and the active and reactive power consumption of cranes.
- All the equipment the test containers, all overloads and the personnel required for proper and complete execution of the provisional acceptance tests of the cranes and their equipment should be supplied by the contractor without additional costs.

5-1-3 SERVICE CRANE TESTS

The following tests should be performed on the service crane:

- Check test.
- No load test.
- Dynamic test with full load for two hours.

5-1-4 EMERGENCY BRAKE TEST

The emergency brake effective should be checked during free fall and hoisting / lowering over speed under full load. all the equipment the test loads with flat needed and the personnel required for proper and complete execution of the provisional acceptance tests of the cranes and their equipment should be supplied by the contractor without additional cost.

STANDARDS, RULES AND CODES

ITEM	*STANDARDS AND CODES*
STEEL QUALITY	
WELDING	
BOLT	
BRAKES	
MOTORS	
GENERATOR	
CABLES	
SWITCHGEARS	

CHAPTER VI

TABLE OF PARTICULARS

Part – I : Structural and mechanical equipment .

Part – II : Electrical equipment .

Part – III : spare parts list

It is obligatory for the tenders to fill the following tables

These data are essential for tender evaluation.

PART - I

STRUCTURAL AND MECHANICAL EQUIPMENT.

1-GENERAL:

Validity	
Delivery period	
Terms of payment	
Guarantee (THE WHOLE CRANE – PLC AND DRIVES……etc)	
Method of delivery	
Inspection in factory	
training in factory	
training on site	
Design calculation	
Country of manufacture	
Country of assembly	
No of operating cycles according to FEM (Crane life time cycle)	

1-1 MAIN WEIGHT

WEIGHTS		22.5 m span 18.3 m Height	22.5 m span 21.3 m height	26.5 m span 21.3 m height
Estimated maximum weight of transtainer and spreader	Ton			
Weight of transtainer steel frame without any fittings	Ton			
Weight of mechanical fittings and equipment	Ton			
Weight of electrical fittings and equipment	Ton			
Weight of other miscellaneous	Ton			
Weight of the spreader	Ton			

1-2 MAIN DIMENSIONS

ITEM NAME		22.5 m span 18.3 m Height	22.5 m span 21.3 m height	26.5 m span 21.3 m height
Lifting height under spreader	(m)			
Total trolley travel	(m)			
Span	(m)			
Wheel base bogie span	(m)			
Overall length over bogie guards	(m)			
total overall width	(m)			

2 – LOADING CONDITIONS

2 –1 CAPACITIES AND HANDLING FEATURES

ITEM NAME		22.5 m span 18.3 m Height	22.5 m span 21.3 m height	26.5 m span 21.3 m height
20 ISO container handling	yes /no			
40 ISO container handling	yes / no			
6 ISO containers side plus 1 road	yes / no			
7 ISO containers side plus 1 road	yes / no			
Containers stacked 5+1 (9 ' 6" containers)	yes / no			
Containers stacked 6+1 (9 ' 6" containers)	yes / no			

2-2 CONCENTRIC LOADING

Safe working load under spreader	(ton)	

2-3 MAXIMUM ECCENTRIC LOAD

Container (ISO)		Eccentricity (m)	Max. load (ton)
- I A (20)	Lateral		
	Longitudinal		
- I A (40)	Lateral		
	Longitudinal		

2-4 MAXIMUM WHEEL LOAD (PRESENT CALCULATIONS)

ITEM NAME		22.5 m span 18.3 m Height	22.5 m span 21.3 m height	26.5 m span 21.3 m height
Max. wheel load	(ton)			
Span of wheel	(m)			
Max. horizontal linear load along track	(ton/m)			
Max. horizontal linear load normal to track	(ton/m)			
Max. linear load, crane in service	(ton/m)			
Max. linear load, crane out of service	(ton/m)			
Min. wheel load (stability)	ton			
Min. stability factor, crane in service				
Min. stability factor, crane out in service				

3 SPEEDS

3-1 MAIN HOIST

Max. speed with full load	m/min	
Acceleration time with full load	(s)	
deceleration time with full load	(s)	
Max. speed without load	m/min	

3-2 TROLLEY TRAVEL

Max. speed with full load	m/min	
Acceleration time with full load	(s)	
deceleration time with full load	(s)	
Max. speed without load	m/min	

3-3 LONG TRAVEL

Max. speed without load	m/min	
Max speed with full load	m/min	
Acceleration time with full load	(s)	
deceleration time with full load	(s)	

3-4 OPERATING CYCLES

No. of operating cycles per hour according to F. E. M.	

4 CLASSIFICATIONS ACCORDING TO F.E.M./1.001-1987.10-01

	Hoist Drive	Trolley drive	Gantry travel drive	Structure	Spreader
Class of operation					
State of loading					
Group					

5 GENERAL SPECIFICATIONSS

Propelling of trolley	
Fixation of trolley rail with beam	
Cross – section of structure members	
Ratio of diameter of hoisting drum and sheaves to rope diameter	
Box girders with access means	

6 STRUCTURE

6-1 EQUALIZER BEAMS, BOGIES AND WHEELS

* Present an assembly drawing for one corner.
* Present detailed drawings for the sections of each equalizer beam showing dimensions of the cross-sections, thickness of plates and diameter of pins

Item name		22.5 m span 18.3 m Height	22.5 m span 21.3 m height	26.5 m span 21.3 m height
Weight per corner without drives	(Ton)			
Weight per corner with drives	(Ton)			
Anti-collision with containers at the yard	yes/no			

6-1-1 PLATES

Material according to DIN		
Yield stress	(N/mm^2)	
Design stress	(N/mm^2)	
Design factor		

6-1-2 PINS

Load capacity		
Material according to DIN		
Yield stress	(N/mm^2)	
Design stress	(N/mm^2)	
Design factor		

6-1-3 TIRES

Material according to DIN		
No. of wheels per corner		
No. of driven wheels per corner		
Tire diameter	(mm)	
Tire size		
No of ply		
Bias or radial		
Industrial tires	Yes / no	
Load capacity for the tire at speed 10 Km/h	(ton)	
Manufacture / Country of origin Tire pressure monitoring system type in the operator cabin	Yes / no	

6-1-4 WHEEL AXLE

Material according to DIN		
Country of origin/ manufacture		
Yield stress	(N/mm^2)	
Design stress	(N/mm^2)	
Design factor		
Diameter of axle	(mm)	
Type of bearing		
Life time of bearing	(hour)	

6-2 GANTRY

6-2-1 GENERAL

Time to rotate wheels 90	(sec)	
Safety for pivoting and locking	Yes / no	
Method of gantry locking		
wheel guards	Yes / no	
Gantry locking devices	Yes / no	
Hydraulic jack	Yes / no	
Jacking point	Yes / no	
Automatic central lubrication system for both Sides of the crane	Yes / no	

6-3 PORTAL STRUCTURE

* Present a drawing for the portal structure.
* Present detailed drawing for the cross-sections at different parts showing dimensions of the cross-sections, thickness and stiffeners

6-3-2 PORTAL BEAMS

6-3-2-1 GENERAL

		22.5 m span 18.3 m Height	22.5 m span 21.3 m height	26.5 m span 21.3 m height
Country of origin/ manufacture				
Country of assembly				
Shape of cross-sections of portal beams				
Weight of the steel skeleton	(ton)			
Material according to DIN				
Yield stress	(N/mm^2)			
Design stress	(N/mm^2)			
Design factor				
Welding quality				
Bolts made of stainless steel	Yes / no			

6-3-2-2 BOLTED CONNECTIONS

- Present a drawing showing the location of the joints.
- Present a drawing showing the cross-section of the joints.

6-3-3 TROLLEY

Material according to DIN		
Type of wheel (double flanged)	Yes / no	
Yield stress	(N/mm^2)	
Design stress	(N/mm^2)	
Width	(mm)	
Length	(mm)	
Weight without drives	(ton)	
Weight with drives	(ton)	
Method of horizontal guiding		
Anti-derailment device	yes/no	
Wheel failure support	yes/no	

Wheel material according to DIN		
Wheel diameter	(mm)	
Wheel hardness	(BHN)	
Type of Buffers and end stops		
Automatic central lubrication system	Yes / no	

6-3-4 STAIRS AND PLATFORMS

Material according to DIN		
Corrosion protection		
Material of bolts according to DIN		
Corrosion protection of bolts		
Height of the top hand rail	(mm)	
Height of the top guard	(mm)	
Width of platforms	(mm)	
Height of overhead clearance		
Safety hoops for ladders	yes/no	
Max. height of stair flight	(m)	
Total weight	(ton)	

7 POWER HOUSES

7-1 DIESEL ROOM

PRESENT A DRAWING FOR THE ARRANGEMENT OF THE EQUIPMENT IN THE DIESEL.

Country of origin/manufacture		
Dimensions (length x width x height)	(mm)	
Weight without equipment	(ton)	
Total weight with equipment (ton)		
Fixation with structure		
State of loading		
Insulation (thermal/noise)	Yes/no	
Suitable lighting	Yes/no	

7-2 ELECTRICAL ROOM

Country of origin/manufacture		
Dimensions (length x width x height)	(mm)	
Insulation (thermal/noise)	yes/no	
No. of Air conditioning, type, and the capacity		
Ventilation	yes/no	
Automatic Fire surge system	yes/no	
Work bench	yes/no	
Dimension of bench	(mm)	

8 MECHANICAL DRIVES

- Present drawings for each drive (Hoist, Trolley and Long Travel).
- Present calculations for the power required for each drive.

8-1 MOTORS

Drive		Hoist	Trolley	gantry
No. of motors				
Normal operating speed	RPM			
Rated power	kW			
Rated torque	Nm			
Supplier				
Country of origin/manufacture				
Duty type and factor				

8-2 COUPLINGS

Type				
Max. transmitted torque	Nm			
Rated torque	Nm			
Method of alignment				
Supplier				
Country of origin/ manufacture				

8-3 BRAKES

Type				
Safe proof	yes/no			
Type of release mechanism				
Braking torque	Nm			
Wear compensation				
Protection guard	yes/no			
No of brakes				
Supplier				
Country of origin/ manufacture				

8-4 GEAR REDUCERS

		hoist	trolley	Travel
Type of reducer				
Number of reducers				
Gear ratio				
No. of trains				
Normal input speed	RPM			
Normal output speed	RPM			
Type of gears (helical, spur, ..)				
Material of pinions				
Material of gears				
Gear construction (welded,…)				
Treatment of teeth				
Max. output torque	Nm			
Nominal output torque	Nm			
Rated power	kW			
Weight	Kg			
Vibration sensor	yes/no			
Inspection hole	yes/no			
Drip pan	yes/no			
Oil level indicator	yes/no			
Hoisting eye	yes/no			
Oil capacity (Liter)				
Type of bearings				

Life time of bearings	hour			
Supplier				
Country of origin/ manufacture				

8-5 EMERGENCY BRAKES

Type				
Braking torque	(Nm)			
No. of brakes				
Fail safe	Yes/no			
Supplier				
Country of origin/ manufacture				

8-6 ROPE DRUMS

Material according to DIN				
No. of drums				
Diameter of drum	(mm)			
Ratio of drum to rope diameters				
Groove diameter	(mm)			
No. of dead turns				
No. of working turns				
Thickness of drum shell				
Over speed switch	Yes\No			
Pitch	(mm)			
Length of drum	(mm)			
Flange thickness	(mm)			
Type of bearing				
Life time of bearings	(hour)			
Supplier				
Country of origin/ manufacture				

8-7 ROPE SHEAVES

No. of sheaves				
Material according to DIN				
Diameter	(mm)			
Ratio to rope diameter				

Groove diameter	(mm)			
Type of bearing				
Life time of bearings	(hour)			
Supplier				
Country of origin/ manufacture				

8-8 ROPES

No. of ropes				
Material according to DIN				
Tensile strength	(N/mm^2)			
Breaking strength	(N/mm^2)			
Theoretical diameter	(mm)			
Practical diameter	(mm)			
Number of strands				
Compacted outer strands	Yes / no			
galvanized	Yes / no			
Type of composition of rope				
Type of core				
Theoretical factor of safety				
Practical factor of safety				
Length of each rope	(m)			
Reeving winch	yes/no			
Tension adjusting device	yes/no			
Supplier				
Country of origin/ manufacture				

8-9 BEARINGS

Identification	type	Country of origin/ manufacture	model
Hoist Sheaves			
Gantry Wheel			
Wire Rope Drum			
Trolley Wheel			
Gantry wheel turning			

9 LIFTING ATTACHMENT

9-1 HEAD BLOCK

Weight of headblock	Ton	
Pulleys	Yes / no	
Material according to DIN		
No. of pin connections with spreader		
Diameter of pin	mm	
Weight of pin		
Material of pin (DIN)		
Cable basket	Yes / no	
Handrail on the two sides of the head block	Yes / no	
Country of origin/ manufacture		
Supplier		
Construction		
Floating twist locks	yes/no	
Weight	(ton)	
Means of locking twist locks		
No. of hydraulic power packs		
High pressure filter	yes/no	
Max. pressure	(bar)	
Low fluid alarm and cutoff	yes/no	
Drainage solenoid valve	yes/no	
Pressure test points	yes/no	
Local control panel	yes/no	
Country of origin/ manufacture		

10 PAINTING

1-Type of surface preparation		
Exterior surface		
Coat	Type of coat	Layer thickness µm
First		
Second		
Third		

Interior surface of structural members		
Coat	Type of coat	Layer thickness µm
First		
Second		
Third		

11-CONTROL CABINS

11-1 DRIVER'S CABIN

Country of origin/manufacture		
Distance between cabin and center of head block	(mm)	
Visibility angle at lowest position of container	degree	
Vibration and noise isolation	yes/no	
Dimensions (length x width x height)	(mm)	
Type of corrosion protection		
Insulation	yes/no	
Type of insulation		
Thickness of insulation	(mm)	
Type of glass		
Thickness of glass	(mm)	
Thickness of glass in floor	(mm)	
Access for cleaning windows from outside	yes/no	
Window wipers	yes/no	
Adjustable seat	yes/no	
Air-conditioning unit	yes/no	
Capacity of air-conditioning unit	(kW)	
Emergency escape system	yes/no	
Container weight display	yes/no	
Wind display and alarm	yes / no	
Cabin diagnostic system	yes / no	

12- HYDRAULIC PLANT

Location of plant		
No. of units		
Type of pumps		
Supplier of pumps		
Capacity of pumps		
Supplier of elements		
Max. pressure	(bar)	
Type of fluid		
Sizes of tanks		
Corrosion protection		
Filter size		
Drain opening with magnetized plug	yes/no	
Light level indicator	yes/no	
Safety for minimum oil level	yes/no	
Type of distribution pipe		
Type of connections of pipes with equipment		
Safety precautions	yes/no	
Anti humidity heaters	yes/no	
Material of cylinders		
Material of rods		
Closed panel with doors	Yes / no	
Country of origin/ manufacture		

13- DIESEL ENGINE

Maker		
Country of origin/ manufacture		
Type (model)		
No. of cylinders		
Bore	(mm)	
Stroke	(m)	
Displacement	(liter)	
Compression ratio		
Weight		
Max. Continuos power ……..kW at …….. RPM		
Max. Intermittent power …….. kW at …….. RPM		
Specific fuel consumption at operating speed	(gr. / kW hr)	
Max. combustion pressure		
Fuel consumption	(liter/hr)	
Smoke limiter	Yes/no	
Starter heating	Yes/no	
Fuel tank capacity (main / auxiliary)	(liter)	
Silencer	Yes/no	
Drain line to ground level	Yes/no	
Material of exhaust pipe		
Heaters in auxiliary fuel tank	Yes/no	
special tools for each type of maintenance according to its Documents (one set for Alexandria terminal and one set for Dekheila terminal)	Yes/no	

PART – II
ELECTRECAL EQUIPMENT

It should be noted that the make trade mark and country of origin should be clearly stated for every equipment used in the offer, also separate sheet may be added if necessary.

1. GENERAL

1.1. GENERAL TECHNICAL DATA

AC motor voltage system	V Hz	
Low voltage system	V Hz	
voltage for lighting system	V Hz	
Control voltage	V Hz	
Control voltage for PLC system	V Hz	
Auxiliary relay control voltage		
Control voltage (hydraulic valves)		
Control voltage (communication system)		
Permissible voltage tolerance		

1.2. AMBIENT CONDITIONS

Temperature	°C to °C
Relative humidity	max %
Air pollution	
Electric room temp	°C to °C

2. POWER SUPPLY

2.1. ALTERNATOR

Maker		
Type / model		
Country of origin/ manufacture		
Rated power		
Rated voltage		
Max. current		
Regulation (voltage)		
Insulation class		
Degree of protection (IP ..)		
Ventilation type		
Anti-condensation heater		

Full load efficiency		
Percentage deviation in frequency from no load to full load		
Protection		
Over current	Yes / no	
Over voltage	Yes / no	
Under voltage	Yes / no	
Thermal protection	Yes / no	
Size		
Weight		

2.2. LOW VOLTAGE SWITCH GEAR

Maker	
Model	
Type	
Country of origin/manufacture	
Rated voltage / current	
Rupture capacity (kA)	
State all protections included	
State all meterings included	

2.2. CAMERA AND MONITRING SYSTEM

NO OF CAMERAS	
POSITIONS	
MODEL	
MAKER	
Country of origin/manufacture	
NO. OF MONITOR IN OPERATOR CABIN AND ELECTRIC ROMM	
HDD CAPACITY	
RECORDED TIME (DAYS)	

2.3. VHF SYSTEM

NO OF FIXED	
TYPE /MAKER	
Frequency range	FROM .....TO.....
Country of origin/manufacture	

3. LIGHTING SYSTEM

3.1. LED FLOOD LIGHTING UNITS

Maker		
Country of origin/manufacture		
No. of flood light units		
Location for each		
Rating of each flood light	watt	
Intensity of illumination in working area	lux	
IP		

3.2. GENERAL LIGHTING

Maker		
Country of origin/manufacture		
Type of fixture		
Rating	watt	lux
Intensity in each room , stairs …etc		lux

3.3. EMERGENCY LIGHT

Maker		
Country of origin/manufacture		
Type of fixture		
Rating	Watt	lux
Intensity in each room , stairs …etc		lux

4. SOCKET OUTLETS

4.1. WELDING SOCKETS 380 3 phase + E 50Hz 63A

Maker	
Country of origin/manufacture	
Rating	
No. of sockets in the following sites:-	
- Diesel room	
- Trolley platform	
- Ground level both sides	

4.2. POWER SOCKETS 16A 220 V AC single phase

Maker	
Country of origin/manufacture	
Rating	
No. of sockets in the following sites:-	
- Diesel room	
- Trolley	
- Electrical room	
- Driver cabin	
- Ground level both sides	

4.3. HAND LAMP SOCKETS 24 V DC / 20 A

Maker	
Country of origin/manufacture	
Rating	
No. of sockets in the following sites:-	
- Diesel room	
- Electrical room	
- Driver cabin	
- Ground level both sides	
- Trolley	

5- LIMIT SWITCHES

Maker	
Type	
Country of origin/manufacture	
Protection duty (against dust and watertight)	
*Limit switch distribution and function of each (Separate sheer can be added)	

6. POWER DEMAND

Total connected load	
RMS. power demand during Continuous full capacity	
Minimum power requirement for emergency operation	
Maximum power drawn during :-	
Max. peak service for 40 ton load	
Normal service	

7. MAIN DRIVE AC MOTORS

7.1. MOTORS

Identification	Hoist	Trolley	Gantry
Maker			
Type			
Country of origin/manufacture			
Quantity			
Rated power (KW)			
Rated voltage (V)			
Rated Speed (r.p.m)			
Rated torque			
Max. torque			
Enclosure			
Duty type (S1,S2,….etc)			
Duty factor (…%)			
Starting class			
Insulation class			
Degree of protection (IP..)			
Ventilation type			
Type of tacho generator (if any) / encoder			
Type of control (vector, v/f…. Etc)			
Range of speed control			
Anti condensation heaters			
Thermistor for warning tripping			
Full load efficiency			
Over load ratio			

8.2. MOTOR PROTECTION

Identification	Hoist	Trolley	Gantry
Number of thermistors & type			
Over current protection			
Under voltage protection			
Over voltage protection			
Phase loss protection			
Phase sequence protection			
Tacho / encoder loss protection			
Over speed protection			

Please give brief description for the basis upon which the above selection were made, use separate sheet if necessary indicating safety features and advantages of control strategy.

9. AC MAIN DRIVES (INVERTER)

Identification	Hoist	Trolley	Gantry
Maker			
Type			
Quantity			
Country of origin/manufacture			
Main voltage			
Main frequency			
O/P freq. Range			
Rated Power (kw)			
Ambient temp.			
Enclosure: degree of protection (IP..)			
Protections provided			
Over load capacity			
Transient over voltage			
Safety functions:-			
- Mechanical brake control			
- Torque proving			
- Fast stop			
- Torque monitor			
- Fault handling			
Ratio drive (kw)/ motor (kw) %			

Control panel information and function:-			
- Status information (run-ready-fault Messages).			
- Display of reference values and actual values.			
- Uploading , down loading, changing, displaying and saving the application ***Controller and drive controller parameters***			

10. MAIN CONTROL SYSTEM

Type of PLC:-

Maker	
Model	
Country of origin/manufacture	
Processor type and speed (freq.)	
No. of I/P (digital – analog…..occupied / spare) ports	
No. of O/P (digital – analog …occupied / spare) ports	
Capacity of memory	
Scan time	
Programming language	
Type of Program Software	
Method of data transfer	
Protection	

Give brief description of the control concept adapted and the bases upon which the above choices were made. Use separate sheet if necessary.

Illustrative Catalogs for the above modules must be presented.

11. LOW VOLTAGE CABLES

Maker	
Country of origin/manufacture	
Conductor material	
Min cross section	
Current density for cross section area	
Extra 25% of conductors in all control cables	
Insulation type	

12. SPREADER POWER AND CONTROL CABLE

Maker	
Type	
Country of origin/manufacture	
Length of cable	
Power cable current density	
Total number of control conductors	
Number of spare control conductors	
Cross-section area of control conductors	

13. FESTOON CABLE OR ENERGY CHAIN

Maker	
Type	
Country of origin/manufacture	
Size and rating	
Total length of festoon cable or e-chain	
Number of festoon carriage	
Existence of cable festoon wire	yes - no
Festoon cable motorize	yes - no
Self greasing wheels	yes - no

14- CRANE MANAGEMENT AND MONITORING SYSTEM (CMMS)

No of diagnostic levels	
Location of terminals (e-room , driver cabin)	
SYSTEM Hardware specifications (pc , monitor and wireless laser printer)	
Functions achieved	
Type of display panel in operator cabin	

15. SPREADER

Maker	
Country of origin/manufacture	
Model	
Lifting capacity	
Size of container handed	
Weight of spreader	
Rectangular cross section for mechanical security	Yes – no
Times of	
- Twist lock open or closed	Sec
- Telescopic movement	Sec
Motor power	
Motor type and manufacturer	
Telescopic motion accuracy	Mm
Type of telescopic motion accuracy sensor	
Chain telescopic motion mechanisms	Yes – no
D.C control voltage	Yes – no
Relays control / plc controller	
Emergency hand operation for twistlock	Yes - no
Testing local panel installed on spreader	Yes - no
Height indicator	Yes - no
Electrically movable corner flipper arms	Yes - no

16- PANELS & THICKNESS

Thickness	
Type of material Stainless steel	yes - no

17- emergency external power supply outlet :-

emergency external power supply outlet (yes/no)	

18- rain shelter

Dimensions (length & width and Hight) (mm)	
Thickness wall sheet (mm)	

19 - Hoist reeving system

Hoist Reeving system (yes/no)	

20- Skew, trim, and side shift

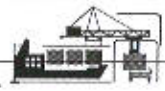
Maker	
Country of origin/manufacture	
Skew angle degree	
Trim angle degree	
Side shift distance mm	

21- Safety devices

Maker	
Country of origin/manufacture	
radar ranger dual zone (slow down / stop) for the crane to crane (yes/no)	
Containers and trailers (ultra sonic devices on inner side of the sill beam in each corner) (yes/no)	
Trailers (ultra-sonic devices for the outside anti-collision in each corner) (yes/no)	
Trailers and humans on the long travel gantry (radar – based dual zone adjustable (slow down / stop) (yes/no)	
3D Lazer crane anti -collision system (yes/no)	
Stack profiling system (SPS) (yes/no)	

PART III SPARE PARTS LIST

DESCRIPTION / ITEMS		PART NO	UNIT PRICE
1-DIESEL ENGINE			
STARTER MOTOR			
ALTERNATOR			
ENGINE EMS CARD			
ENGINE CONTROLLER STARTER(like deep sea controller)			
WATER PUMP COMPLETE AND REPAIR KIT			
SET OF INJECTORS			
TURBOCHARGER AND REPAIR KIT			
ALL FILTERS NEEDED FOR 5000 HRS PER CRANE - OIL FILTER EVERY 250 HRS - FUEL FILTER EVERY 500 HRS - AIR FILTER EVERY 1000 HRS - WATER FILTER EVERY 500 HRS			
COMPLETE REPAIR SET OF CONTROL AND PROTECTION SYSTEM ELEMENTS FOR DIESEL INCLUDING, (SENSORS, ALL GAUGES, INDICATORS, TIMERS , RELAYS .... ETC.)			
COMPLETE Overhaul SET OF SPARE PARTS (PISTON, INJECTORS, CYLINDERS , CONNECTING RODS , BEARING , CRANK SHAFTS , VALVES , PUSH ARMS ... .ACT			
2- TELESCOPIC SPREADER & HEADBLOCK			
COMPLETE TWIST LOCK MECHANISM			
COMPLETE TWIST LOCK SET (SET 4 TWIST LOCK)			
COMPLETE -C ENERGY CHAIN			
COMPLETE SET OF FLIPPERS			
COMPLETE SET OF LIMIT SWITCHES			
COMPLETE SET OF ELECTRIC MOTORS USED WITH GEARBOXES FOR TWIST LOCK , TELESCOPIC MOTION AND FLIPPERS			
COMPLETE SET OF ELECTRIC COMPONENT FOR THE WHOLE SPRAEDER INCLUDING CABLES , SPLITTER NODE BOXES ,CONTACTORS , PLC CONTROLLER (IF USED) ....ETC			



COMPLETE SET OF ELECTRIC COMPONENT ON HEADBLOCK (SENSORS , PLC CONTROLLER (IF USED))			
COMPLETE SET OF BUFFERS			
3- WHEEL TURNING SYSTEM			
COMPLETE SET OF REPAIR KIT for cylinders(TO BE IDENTIFIED IN THE OFFER)			
ELECTRIC MOTOR AND HYDRAULIC PUMP COMPLETE			
COMPLETE SET OF LIMIT SWITCHES			
HYDRAULIC CYLINDER -D			
IC VALVES , COILSHYDRAUL -E			
SET OF FILTERS FOR HYDRAULIC CIRCUIT NEEDED THE FIRST 1000 OPERATION HRS			
4- LIMIT SWITCHES AND SENSORS			
COMPELET SET FOR HOIST BRAKES			
COMPELET SET FOR GANTRY BRAKES			
COMPELET SET FOR TROLLEY BRAKES			
COMPELET SET FOR HOIST EMERGENCY BRKES			
COMPELET SET FOR ANTI-COLLISION RADAR FOR LONG TRAVEL GANTRY			
COMPELET SET FOR INNER AND OUTER ANTI-COLLISION ULTRA SONIC or laser sensor FOR CONTAINERS			
COMPLETE SET FOR SAFETY DEVICES OF HOIST AND TROLEY (LIMIT SWITCHES , CAM L.S ....ETC)			
5- BRAKES			
COMPLETE Unit HOIST BRAKE			
COMPLETE UNIT TROLLEY BRAKE			
COMPLETE UNIT GANTRY BRAKE			
COMPLETE HYDRAULIC POWER UNIT FOR HOIST EMERGENCY BRAKE			
COMPLETE SET OF BRAKE PADS FOR MAIN HOIST BRAKE			
COMPLETE SET OF BRAKE PADS FOR MAIN TROLLEY BRAKE			
COMPLETE SET OF BRAKE PADS FOR MAIN GANTRY BRAKE			

COMPLETE SET OF EMERGENCY BRAKE CALIPER			
COMPLETE REPAIR SET FOR EMERGENCY BRAKE HYDRAULIC UNIT INCLUDING (VALVES , PUMP , ELECTROMAGNET VALVES ,seal kit, ... TO BE (.ETC IDENTIFIED IN THE OFFER			
6- GEAR BOXES , TYRES AND WHEELS :			
GEAR BOX (HOIST , TROLLEY , GANTRY)			
COMPLETE COUPLING FOR EACH MOTION			
TROLLEY DRIVEN WHEEL (WITH AXES AND BEARING) COMPLETE			
TROLLEY IDLE WHEEL (WITH AXES AND BEARING) COMPLETE			
RIM FOR GANTRY TYRE COMPLETE			
GANTRY TYRE			
GANTRY TRANSMISSION UNIT COMPLETE WITHOUT MOTOR			
7 – ELECTRICAL COMPONENETS			
COMPLETE PC for CMS INCLUDING (PROCESSOR , MOTHERBOARD , RAM, HARD DISK , DVD CDROM ,.....ETC			
COMPLETE SET OF COMMUNICATION CABLES LIKE (SX BUS CABLE OR PROFINET CABLE (IF USED)			
MONITOR & LASER WIRELESS PRINTER			
COMPLETE PLC CPU WITH EPROM MODULE (IF USED)			
DIGITAL INPUT MODULE -E			
DIGITAL OUTPUT MODULE -F			
ANALOG INPUT MODULE			
ANALOG OUTPUT MODULE			
POWER SUPPLY MODULE			
BASE BOARD			
INTERFACE MODULE & COMMUNICATION MODULE (SERIAL , ETHERNET , PROFIBUS , FIBER OPTICS ....ETC)			

8- INVERTER DRIVE FOR EACH MOVEMENT			
COMPLETE AC INVERTER DRIVE FOR HOIST MOTOR			
COMPLETE AC INVERTER DRIVE FOR TROLLEY MOTOR			
COMPLETE AC INVERTER DRIVE FOR GANTRY MOTOR			
SET OF INVERTER COMPONENTS PER EACH MOVEMENT			
9- LOAD CELL (SENSOR) WITH ITS AMPLIFIER			
10A- ONE COMPLETE IDENTICAL AC MAIN GENERATOR WITH COUPLING AND AVR CONTROL CARD			
10B – SET OF ROTATING DIODES AND SURGE SUPRESSOR FOR AC GENERATOR			
11- SPREADER ELECTRIC FLEXIBLE CABLE WITH SOCKET AND PLUG			
12 – COMPLETE SET OF CONTACTORS , OVERLOADS , CIRCUIT BREAKERS AND ANY OTHER SAFETY DEVICES IN ELECTRICAL ROOM			
13- JOYSTICK COMPLETE FOR EACH TYPE OF MOTION INCLUDING (HOIST , TROLLEY, GANTRY , STEERING, SKEW , TRIM AND SIDESHIFT)			
14- COMPLETE SET OF HOIST WIRE ROPES WITH ALL ENDS PER CRANE			
15- ENCODER FOR EACH MOTION PER CRANE			
16- SKEW & TRIM CYLINDER (IF USED)			
17-SIDE SHIFT CYLINDER (IF USED)			
18- Complete set of repair kit for Skew, trim and side shift cylinder (if used)			
19- COMPLETE TROLLEY ENERGY CHAIN WITH CABLES			
20 – COMPELET SET OF CCTV SYSTEM WIHOUT DISPLAY			
21 –COMPLETE SET OF INTERCOM SYSTEM			
22 - HOISTING MOTOR WITH COUPLING			
23 - TROLLEY MOTOR WITH COUPLING			
24 - GANTRY TRAVELING MOTOR WITH COUPLING			

CHAPTER VII
Prequalification
(To be completed by the Tenderer)

7.1 Name of Supplier :

7.2 Date of Foundation :

7.3 Capital and reserves :

7.4 Shareholders :

7.5 Capacity :

7.6 Facilities :

7.7 Delivery time :

7.8

7.9 Yard Cranes Built by the Tenderer :

Yard Crane	No. Built	Main Characteristics			Delivery Cate	Custom
		Pay Load	Span	Lifting Height		

7-9 Any other relevant information :

7-10 RECOMMENDED SUB SUPPLIERS

ITEM	DESCRIPTION	SUBSUPPLIER
1	WIRE ROPES	DIEPA , CASAR
2	GEAR REDUCERS	FLENDER SIEMENS , BREVINI
3	BEARINGS	SKF, FAG
4	BRAKES	BUBENZER , SIBRE
5	SPREADER	BROMMA, ZPMC
6	CABLES	GE, IGUS
7	AC DRIVING MOTORS	FUJI , SIEMENS
8	AC SPEED DRIVE	FUJI , SIEMENS
9	P.L.C AND FAULT DIAGNOSTIC	FUJI , SIEMENS
10	DIESEL ENGINE AND SCR SYSTEM	VOLVO , CUMMINS
11	GENERATOR	STAMFORD , MARELLI
12	TUBELESS TIRES	BRIDGESTONE , GOODYEAR , YOKOHAMA
13	HYDRAULIC COMPONENTS (PUMPS, VALVES, ETC)	VICKERS , REXROTH , PARKER.

ITEM	DESCRIPTION	SUBSUPPLIER
14	LIMIT SWITCHES	OMRON, IFM,TURCK
15	CONTACTORS AND RELAYS	SIEMENS, FUJI, ABB
16	CIRCUIT BREAKERS	SIEMENS, FUJI , ABB
17	COUPLING	BUBENZER , SIBRE
18	AIR CONDITION	CARRIER, SHARP (EGYPTIAN MADE)
19	CCTV SYSTEM	EU , JAPAN , USA
20	VHF SYSTEM	EU , , JAPAN , USA
21	FIRE SYSTEM	EU , , JAPAN , USA
22	SPREADER CABLE	PRYSMAIN , IGUS
23	LOW VOLTAGE SWITCH GEAR	SIEMENS/ABB/TELEMECHANIQUE
24	INTERCOM SYSTEM	EU , JAPAN , USA
25	LOAD CELL	HIRSCHMANN , BROSA
26	TOOLS IN ITEM NO 1.9	EU , JAPAN , USA
27	LED LIGHTING	EU / JAPANESE / USA
28	3D laser system	Cathay nebula, ABB, SIEMENS
29	Ultrasonic and radar sensors	IFM,Turck, banner

- *The above recommended sub suppliers list is the preferable and any other sub suppliers will be considered in the final evaluation.*
- *The country of origin/manufacture will be considered in the final evaluation*

CHAPTER (VIII)

GENERAL CONDITIONS

IMPORTANT NOTES

1. The technical offer should be including the design calculations for the crane.
2. It is obligatory for the tender to fill the table of particulars; this data is essential for tender evaluation.
3. An items or parts written in the technical specifications and did not comment by the offer, the tender will be obligated to execute it.
4. All documents must be stamped (technical offer, Financial offer, power of attorney....etc)
5. A soft copy for technical offer and Financial offer should be submitted inside each envelope

ملاحظات هامة:

يلتزم مقدم العطاء بالاتي:-

1- ان يشمل العرض علي الحسابات التصميمية للونش

2- ملىء الجداول الخاصة بالمكونات الفنية والواردة (CHAPTER VI TABLE OF PARTICULARS)

3- اي بند أو جزء من البند مدرج بالمواصفات الفنية بكراسة الشروط ولم يرد الاشارة اليه بالعرض المقدم يلتزم مقدم العطاء بتنفيذه.

4- دمغ جميع الأوراق التي تقدم في المناقصة (العرض الفني – العرض المالى – التفويض..... الخ)

5- يجب الالتزام بتقديم نسخة (SOFT COPY) للعرض الفني و العرض المالى داخل كل مظروف

GENERAL CONDITIONS

FOR GENERAL TENDER TO SUPPLY, DELIVERY

AND COMMISSIONING SEVEN (7) RUBBER TYRED YARD

GANTRY CRANES (RTGS) 40 TON

Tenderers are invited by foreign purchasing committee of Alexandria container & cargo handling company (ACCHCO.)for delivery and commissioning Senen (7) rubber tyred yard gantry cranes (RTGS) 40 tones as follows: three (3) three RTGS for Alexandria container terminal (private free zone) and four (4) RTGS for Dekheila container terminal (private free zone) as mentioned in technical specifications.

- Before submitting offers the tenders should carefully revise these instructions and technical specifications.
- Tenderers have the right to ask any questions that can clarify any misunderstanding before submitting their own proposal up to 21 days before opening envelope (A).
- Tenderers must present their tender complying with technical specifications in case tenders not complying with the technical specifications the company has the right to reject these tenders.
- Tenderers should consider all the tender items and stick to the specified technical specifications if any tenderer desires to offer special conditions or introduce technical changes or altation he may send these modifications by separate letter provided that it reaches the purchasing committee before the fixed date and time for submitting the envelope (A).
- Tenderers should comply with all the tender's book attached specimens especially the contract terms & conditions, and the company couldn't accept any amendments upon it.
- the company couldn't accept any questions concerning the design, reviewing the drawing or amendments after the fixed date and time for unsealing envelope (A)
- No attention will be paid to tenders not including the financial C.V required in envelope (A) as it is considered an obligation.
- In case of inserting any financial / commercial conditions in the technical offer, no attention will be paid to this condition.
- In case of contracting with the local tenderer he should submit adoption of the financial disclosure when signing the contract and after completion of the contract.
- Tenderer is obliged to sign an acceptance undertaken as per attached form.
- All questions & answerbacks will be submitted to all tenderers.

ART. 1- SUBMISSION OF TENDERS:

The tenders must be delivered in three copies (one original + 2 photo copies) and placed in 2 separate envelopes (A, B) sealed with sealing wax and a soft copy of the tender In case of any discrepancy, the original should be considered.
The tender documents to be presented as follows:

ENVELOPE (A). Includes the following:

1. Technical offer and technical specifications.
2. Past experience (reference list) authorized by the chamber of commerce.
3. The provisional deposit.
4. Form 14C copy of taxes card & commercial registry for local agent or local tenderer .in case being available,
5. Financial C.V for the supplier confirmed by first class bank.
6. The commitment attached with technical specifications signed by authorized person.
7. Power of attorney from supplier to authorized person responsible to sign the contract.
8. The design calculations for the crane.

ENVELOPE (B): Includes the following:

Itemized financial offer and conditions and any elements affects the financial offer.

- Both envelopes (A) & (B) should be put together inside another envelope to be submitted on date of opening envelope (A) & to be addressed as follows:
- President of foreign purchasing committee of branch of Alexandria Container & cargo handling co. private free zone. quay 23 port of Alexandria, fax: 03-4862124

E-MAIL: ALEXCONT@ALEXCONT.COM

TITLE: general tender to supply delivery and commissioning four (7) rubber tyred yard gantry cranes (RTGS) 40 ton.

- Tender documents should be either dispatched by registered mail free of all charges or delivered to company office, against receipt.
- Tender documents should be signed by authorized persons.
- The date and time of envelopes delivery to the foreign purchasing committee should be before 12.00 o'clock at noon.
- Opening of the technical envelope (A) at 12.00 o'clock on / / 2026 - Opening of the financial envelope (B) at 12.00 o'clock on / / 2026 for successful and accepted technical offers.
- Tenderers or their authorized representatives should attend both unsealing envelopes (A), (B) against a stamped authorization form issued by contractor to attend.
- No attention will be paid to any financial modification received after opening of the envelope (A).

ART. 2- PRICE LIST:

Tenderers should observe the following procedures in the price lists or their substitutes.

a) Price must be given on DDP basis on site, branch of Alexandria container & cargo handling company- private free zone, quay 23 port of Alexandria - Alexandria Egypt. And the same to Dekheila port private free zone, quay 96- Alexandria Egypt

b) Total price should be written in figures and in words. the unit price for each item should be specified in the price list.

c) No erasures or crossing should be made in the price lists.

In case of any difference between the unit price and the total price, the unit price will be considered correct.

ART. 3- ORIGIN OF ARTICLES:

Clear mention should be made in the tender for the origin of each item and must not be under license. False information given will entail refusal of the article. The tenderer should submit certificate of origin legalized by A.R.E representation.

ART. 4-CUSTOM DUTIES AND TAXES:

Prices quoted by tenderers should comprise: all right charges, stamp duties and all other taxes according to the tenderers country law and fees to be paid abroad according to their laws and regulations.
All stamp duties, duties and taxes to be paid in accordance with laws of the Arab republic of Egypt (A.R.E.) should be borne by the branch of (ACCHCO.) - private free zone.
Custom clearing will be carried out by the supplier and on his account including (unloading, local transportation, storage charges and dockage and wharfage charges) and all charges to ACCHCO Warehouses.

ART. 5-VALIDITY OF TENDERS:

Tenders must be valid for 90 days from the designated date of opening envelope (A).

at the expire date of tender validity, the tenderer may withdraw his provisional deposit, and in this case the tender becomes null and ineffective.
If the tenderer withdraws his tender before the due date of unsealing tenders, the provisional deposit will be forfeited to the company without need for any notice or recourse to courts.
If he does not withdraw his deposit, he will be deemed to remain bound by his tender until company receives notice from him for withdrawal of his deposit and cancellation of his tender.

ART. 6- RESIDENCE OF TENDERER:

The tenderer must give the name and address of his agent or representative residing in Egypt.

Tenders submitted by agents representing contractors must be accompanied by a power of attorney duly authenticated by the competent authorities.

ART. 7- PAYMENT TERMS:

The contract price preferable to pay by an irrevocable and divisible letter of credit as follows:

- 20% of the value of the contract as advance payment against an irrevocable bank letter of guarantee of the same value and currency and without any conditions or reservations to be submitted by the contractor & accepted by the company valid for a period not less than two months after the date of acceptance of works (as per attached form).

The said value should be transferred against a simple notification from the company to the bank.

- 70% of the value of each crane after receiving & commissioning and accepting the works by the company (on the company site) . The said value should be transferred against a simple notification from the company to the bank.
- 10 % of the value of the contract against a certificate issued by the company confirming the termination of the training on site. The training should be terminated in maximum period of (two) weeks from the date of the acceptance test of the cranes.

If supplier needs to confirm the L/C, the confirmation fees will be borne by himself.

Payment terms are obligatory & objective as mentioned in tender book.

ART. 8 THE PROVISIONAL DEPOSIT:

Tenders must be accompanied by a provisional deposit in USD 210000 or equivalent according to tenders' currency

ART. 9 - PAYMENT OF PROVISIONAL DEPOSIT:

The provisional deposit may be paid by either one of the following:

A) Deposit in cash may be paid by bank transfer with no interest calculated on deposit, a copy of the bank receipt to be attached with the tender.

B) Letter of guarantee issued by one of the authorized local banks class A without any conditions or reservations, the bank must give declaration to pay it in full immediately to the company on first demand without any opposition of the contractor (as per attached form), the letter of guarantee must be valid up to 90 days after the end of validity date of the tender.

- In case of presenting conditional L/G, the tender will be cancelled.

ART.10. REIMBURSEMENT OF THE PROVISIONAL DEPOSIT:

The provisional deposit is to be reimbursed to non-successful tender without application after expiration of the due date of tender validity (or even before) if the final deposit of successful tender has been received whichever comes first.
Such reimbursement is to be made against withdrawal of receipt given for cash payments. If the guarantee is a letter from a bank, the letter of guarantee will be returned to the bank itself.

ART 11 - THE FINAL DEPOSIT:

The tenderer who's offer has been accepted must submit 10% of the total value of his tender as a final deposit in same currency with maximum 20 days calculated from the day of tender acceptance notifications (supply order) and not allowed to extend this period.
i.e. in case of delay in submitting the final deposit within the said period the company has the right to cancel the contract, and project to be performed on his account by the following tenderer. Such deposit will be a security for the fulfillment of the conditions of the contract, and final acceptance.
the final deposit will be a letter of guarantee issued by one of the authorized local banks without any conditions

or reservations, the bank must give declaration to pay it in full immediately to the company on first demand without any opposition of the contractor (as per attached form), the letter of guarantee must be valid 30 days after the guarantee period.
All letters of guarantee must be issued and confirmed by first class bank in Egypt

ART. 12 - NOT LODGING THE FINAL DEPOSIT:

If the tenderer does not lodge the final deposit within the pre-described period fixed for lodging that deposit, by notification without need for other measures, or having recourse to courts.
the company may:

A) Cancel the supply order and forfeit the provisional deposit.

B) Fulfill the whole or part of the contract at the charge of the tenderer or by one of the tenderers whose offers come next to his own one, or by private treaty, or by a limited or general adjudication.

In such event, the company will have the right to deduct the value of any damage or loss arised from that event from any sums which are or may become due to him related to any transaction with the company or by any other governmental department and without prejudice to its right to bring a lawsuit for such losses or damage if it failed to recover.

ART. 13- ACCEPTANCE OF TENDER:

The tender will be held on the lowest considered price relative to its technical evaluation. Tender will be evaluated technically (by point system) the winner will be the lowest considered price according to the following equation:
The evaluation considered price =

$$\text{TOTAL PRICE OF THE TENDER} \times \frac{\text{HIGHEST TECHNICAL TENDER DEGREE}}{\text{TECHNICAL TENDER DEGREE}}$$

The contracted price will be the tender price after financial evaluation price of the lowest tender considered price at may place the contract for the supply of the required items as a whale or cancel the entire tender entirely without giving any reason and the supplier should have no right to claim for damage or anything else

ART. 14 – CORRESPONDENCE:

Suppliers abroad are to be notified by e-mail or fax or confirmed registered mail.

ART. 15 - THE CONTRACT:

The contract to be signed by the suppliers or his commercial agent against power of attorney {presented with envelope (A) within 20 days from the date of supply order.
In case of delay in signing the contract within the said period this is considered waiving from his part to perform the project; the company has the right to perform the project by the following tenderer and the price difference to be borne by the waiving party.
if the supplier makes any change in the technical specification submitted in his technical offer for any reason after signing the contract, this is considered a fault & failure from his side to meet the tender book requirements, and in such case the company has the right to cancel the contract, and project to be performed on his account by the following tenderer.

ART. 16 - CESSION OF CONTRACT:

Under no circumstance should the tenderer or contractor assign the contract or amounts due to him partially or totally to a third party, however he may assign such amount to one of the banks and in such a case the accord on the bank to such step should be adequate and the contractor or the tenderer should remain responsible for the contract execution, provided that acceptance of this assignments of any amount due to him should not relieve him from his liability to any rights to the administration body that may be due by him .

ART. 17 - CANCELLATION OF CONTRACT:

The contract may be canceled and the deposit forfeited to the right of the company (without prejudice) to any damages resulting from such procedure in the following cases:

a) If the contractor resorts to fraud or to deceit in his dealing, in such case his name will be deleted from the list of contractors and he will not be permitted to participate in any adjudication or bargain in addition to take legal action if necessary.

b) If it is proved that the contractor has attempted personally or by means of another person, directly or indirectly, to offer bribery to any employer, or has committed any harm to the company, his name will be deleted from the list of contractors, and company will take legal action against him.

c) If he becomes bankrupt or has financial difficulty.

ART. 18 - DECEASE OF THE CONTRACTOR:

If the supplier is deceased, the company (through a notice) without need for a judicial proceeding or resorting to the courts may either:

A) Cancel the contract and refund the deposit, if no claims are existed against him.

B) Allow his heirs on his demand to continue the execution of the contract, provided that they appoint someone to represent them legally with official power of attorney and provided that such representative is accepted by the company. If the contract includes several contractors, and one of them is deceased, the company may cancel the contract and refund the deposit or may allow his associates to continue the contract.

ART. 19- DAMAGE IN TRANSPORT AND INSURANCE:

The supplier should be fully responsible for all cranes and attachments till acceptance on site (option DDP only).

ART. 20 - DELIVERY OF THE ITEMS:

The cranes should be delivered according to the following and as mentioned in technical specifications.

Seven (7) RUBBER TYRED YARD GANTRY CRANES (RTGS) 40 TON as Follows:

Three Rubber tyred yard gantry cranes to the branch of (ACCHCO.) - Private free zone premises, quay 23 port of Alexandria, Alexandria, Egypt.
in a fully assembled condition leaving only minor work as usual / normal practice of cranes start – up. the supplier is responsible for unloading the cranes & its attachments from the ship to the branch of (ACCHCO.) - private free zone premises, quay 23 port of Alexandria - Alexandria Egypt. DDP

Four rubber tyred yard gantry cranes to branch of ACCHCO- Private free zone premises, quay 96 port of Dekheila, Alexandria, Egypt in a fully assembled condition leaving only minor work as usual / normal practice of cranes start – up. the supplier is responsible for unloading the cranes & its attachments from the ship to the branch of (ACCHCO.) - private free zone premises, quay 96 port of Dekheila - Alexandria Egypt. DDP

the tenderer must state in his tender the total period necessary to supply the submit the schedule of supply (within one month after contract coming in force).

On the arrival of the contracted items to site a committee appointed by the company will be on site to carry out the tests.

The committee is entitled to examine each item and all its parts to check that all are send and in good condition. all tests and certificates should be on the supplier responsibility and on his expense. The supplier must deliver the items contracted within the periods and places specified in the contract according to the order of supply. Period of delivery will be conceder in evaluation

ART. 21 - REJECTION OF ARTICLES AND WORKS:

In case of one or more articles found missing, damaged, deteriorated or have any deficiency or defect or not in conformity with the approved sample or with the specifications will be rejected by the committee with a notice in writing to the contractor, or his agent explaining the reason of rejection, and requiring him to withdraw the rejected articles and supply replacement within a reasonable period accepted by the company otherwise the delivery delay conditions will be applied and in this case the company should has the right to carry on such necessary or replacement on the contractor's account . The contractor should have no right to discuss the manner adopted by the company in carrying out the expenses incurred.

The rejected materials should remain at the contractor's risk until the date of their removal.

In all cases the rejected articles must be withdrawn within (15) fifteen days from the day next to the date of the notification. Else a storage fee equal (2) percent of the value of the goods per week, or any fraction of week up to four weeks will be charged. After this period the company will has the right to sell these goods and deduct from the sale price any amount which may be due to it, the company is not responsible for any damage which may occur to the rejected articles through fire or other cause pending their withdrawal by the contractor or disposal thereof by the company.

ART. 22- DELAY IN DELIVERY:

In case of delay, on the supplier part. in the supply of the whole or part of contractor after the date fixed in the contract. the company may grant to the supplier an extension period for the supply subject to fine in respect of the delay as (1%) for every week or part, in any case the total amount of this fine should not exceed (3 %) of the value of the undelivered items.

In case of the supply would fail to fulfill any of the contract conditions or in case he would drop or miss to perform any of his contractual obligations, he has to properly start cure such a discrepancy within fifteen days since receipt of the company written notification or his agent through a register certified letter by mail, telex or fax, otherwise the company has the right to adopt either of the two following alternatives, without need of having recourse to the courts:

A) Procure elsewhere either by private treaty, or by limited or public adjudication or bargain for the obligations which the supplier failed to supply any excess in price due to such procurement plus any other charges over and above the amount of fine inflicted on account of defaults offered in supply are to be deducted from the deposit offered in security on the contract or from any sums that may be due to the contractor by the company or by any other governmental department.

should however the procurement price of any articles be less than that of this contract, he will not be entitled to the difference as well as will not be exempted from the fine relating to the delay in supply or the other charges.

B) Cancel the contract connection with these obligations and forfeit the final deposit at (10%) of its value as well as all fines due to the company after serving a notice to the contractor and without need of having recourse to the courts and without prejudice to its right to compensation.

ART. 23 - PROVISIONAL ACCEPTANCE:

In the date when the cranes have been tested under the supervision of the international society, and training has been completed, a provisional acceptance certificate will be issued.

ART. 24 – GUARANTEE:

The tenderer will guarantee the cranes for a period of twenty-four (24) months following provisional acceptance of the cranes by the company and Four (48) months for the following items from provisional acceptance:

a) gear boxes and gantry transmission system

b) steel structure

c) trolley wheel

d) PLC & INVERTERS

e) The whole spreader including (PLC (if used))

f) CCTV system

g) IPC (industrial personal computer) for CMS monitoring including monitor, UPS..etc

The supplier guarantees that the cranes will work efficiently to perform all required targets during the guarantee period and as follows:

1- The supplier is committed as soon as notifying him or his commercial agent by a fax or e-mail, to repair, or replace on his account, any defected equipment or parts of it within ten working days max. Counted from the next day of notifying him by fax or e-mail during the guarantee period.

In case of delay in the repairing works more than the max. due date (ten working days), the company has the right for compensation of (500 USD) for each crane, against technical defect, manufacturing defects or defects due to fabricating materials for every day to compensate the loss occurred to the company as a result of stopping work, and if the supplier fails to achieve said repair, The company will have the right to execute the required works on the account and responsibility of the supplier.

The compensation will be counted from the next day following the above mentioned due date, and each case of delay will be considered separately with maximum amount not exceed 10% (ten percent) of the value of each crane.

2- In all cases, on replacing any part of the crane parts during the guarantee period, as a result of any defects, a new guarantee period of twenty-four (24) months for this part of the crane will be considered and started from date of being efficiently operated after replacement.

3- All periods of stopping the cranes resulting from malfunction due to defects during the guarantee period will be added to the original guarantee period of the cranes.

ART 25 - FINAL ACCEPTANCE:

Upon conclusion of guarantee period if cranes have been proved satisfactory, final acceptance will be given and supplier's letter of guarantee will be released.

ART. 26 - LEGAL DISPUTES:

Legal disputes and actions arising out the contract should be dealt according to the Egyptian law with the Egyptian courts in Alexandria stipulations of the regulation of the regulation relating to adjudication are to be considered complementary to the conditions of contract where no stipulations have been made in it.

ART. 27 – FORCE MAJEURE :

Force majeure is applied when events outside the control of the supplier occur such as riots or civil commotion, war or civil war, flood, earth quake, landslide or similar natural disasters, the supplier must declare and prove these events at once and satisfaction of the company that these events were reasonably outside his control.

ART 28 SECRTNESS OF DOCUMENTS

All documents concerning this contract are considered top confidential

ART. 29- LAWS AND REGULATIONS:

The supplier undertakes to obey all governmental and local laws and regulations concerning execution of this contract and should be responsible for the discipline in the site. The supplier has to obey the order of the company. to dismiss any employee who neglect in his work or does not obey the rules or regulations of the company or tries to cheat the supplier undertakes all the safety measures (O.H.S.A.S) to avoid all injuries or death of the workers or any third party in the site or damage to any person or material or physical damage to property whatsoever.
The responsibilities in such case are direct without the intervention of the company. if the supplier fails to fulfill these measures the company should undertakes to fulfill all the safety measures on his account, the supplier should insure all his workers against accidents and civil injuries and will be solely responsible for them for indemnity

ART . 30 – FINANCIAL EVALUATION :

The following (7) items will be considered in the final evaluation.

NO	ITEM	COST
1	VALUE OF EQUIPMENT (DDP)	
2	**Tools item (1-9) in technical specifications**	
3	TEST AND START UP ON SITE.	
4	PERSONAL TRAINING IN FACTORY	
5	PERSONAL TRAINING ON SITE	
6	CHARGES FOR INTERNATIONAL SOCIETY REPRESENTATIVE FOR INSPECTION.	
7	COST FOR COMPANY ENGINEERS INSPECTION	
TOTAL VALUE DDP ON SITE		

This form should be priced & dispatched within envelope B "financial offer"

ART . 31 OTHER CONTRACT RULES :

The rules of contract, purchasing and stores regulations of ACCHCO. are applicable on this contract and its executive status is considered an integral part in case of any stipulation not included

ART.32 COMMISSIONING

The First Party is obliged to pay the percentage of commission, as agreed upon between the Second Party ( ) and his Commercial Agent ( ) amounting to ( ) from the contract value or its equivalent in EGP, the commission shall be deducted from the total value of the proforma invoice.

The Second Party agree to deduct such amount and transfer to the account of the Commercial Agent in one of the banks of Arab Republic of Egypt, which is under the supervision of the Central Bank of Egypt with the actual exchange rate valid when transferring the amounts due.

Taking into consider the following items :

- ministers' board decision No. 1602 of 2021 prohibiting contracting with any suppliers , funders or service providers of any kind unless the contractor (companies registered in the center of major funders - companies registered in the Center of Medium funders) is registered in the electronic billing system.
- The decision of the head of the tax authority No. 85 for the year 2021 to commit all companies to register in the electronic tax billing system.
- Customs law No. 207 of 2020 on the pre-registration of all shipments received by the company ACI

يرعى الاتى :-

- قرار مجلس الوزراء رقم 1602 لسنة 2021 الذى يحظر فيه التعاقد مع اى من الموردين أو الممولين أو مقدمى الخدمات أى كان نوعها الا اذا كان المتعاقد (الشركات المسجلة بمركز كبار الممولين - الشركات المسجلة بمركز متوسطى الممولين) مسجلة فى منظومة الفاتورة الالكترونية .
- قرار رئيس مصلحه الضرائب رقم 85 لسنة 2021 بالتزام كافة الشركات بالتسجيل بمنظومة الفواتير الضريبة الالكترونية .
- قانون الجمارك رقم 207 لسنة 2020 بشأن التسجيل المسبق لجميع الشحنات الوارده للشركة ACI
- و يراعى الاتى :-

1. التسجيل على منصة كارجو إكس .

1 – Register on the cargoX platform for the external supplier at the following sites

https://help.cargox.digital/en/user-manual/registration/new-company-registration/https://help.cargox.digital/en/user-manual/registration/activate-new-account/https://help.cargox.digital/en/user-manual/managing-company-details/your-blockchain-key/https://help.cargox.digital/en/user-manual/managing-company-details/company-profile/https://help.cargox.digital/en/user-manual/managing-company-details/

2. تسجيل الدخول .

2- Sign in

https://help.cargox.digital/en/user-manual/logging-in/login/

3. تحميل البيانات و المستندات .

3- Upload data and documents

https://help.cargox.digital/en/user-manual/using-the-platform/https://help.cargox.digital/en/user-manual/using-the-platform/compose-envelope/https://help.cargox.digital/en/user-manual/using-the-platform/transfer-envelope/https://help.cargox.digital/en/user-manual/using-the-platform/forward-received-documents

- موافاتنا بالرقم الضريبى للمورد بعد التسجيل على المنصه و اسم الشخص المسؤل و رقم تليفونة و البريد الالكترونى الخاص به
- موافاتنا بصورة من الفاتورة التجارية للاصناف الموردة نوضح بها hs code للاصناف قبل الشحن
- فيما يخص شحن الحاويات يراعى ان تكون فترة السماح عشرة أيام على الأقل
- بالنسبة للحاويات (ان وجدت) يراعى ان تكون بوليصة الشحن من التوكيل الملاحى مباشرة دون التعاقد مع FORWARDER

- Provide us with the tax number of the supplier after registering on the platform and the name of the person in charge and his phone number and email
- Provide us with a copy form of the commercial invoice for the items supplied showing hs code for items before shipping
- With regard to container shipping , the grace period should be at least ten days
- For containers (if any) ,the bill of lading must be directly from the shipping agency without contracting the forwarder

DATE : / /

التاريخ : / /

BID BOND GUARANTEE NO.

خطاب الضمان الابتدائي رقم

MESSRS OF ALEXANDRIA CONTAINER & CARGO HANDLING CO. QUAY 23 CONTAINERS TERMINAL - PORT OF ALEXANDRIA

السادة / شركة الإسكندرية لتداول الحاويات والبضائع رصيف 23 محطة الحاويات - ميناء الإسكندرية

WITH REFERENCE TO THE TENDER OF

بالإشارة إلى العطاء المقدم لكم من

IN CONNECTION WITH THE ADJUDICATION NO

بخصوص المناقصة رقم

DATE

بتاريخ

FOR THE SUPPLY OF

لتوريد

WE HEREBY UNDERTAKE TO HOLD AT YOUR DISPOSAL AS PROVISIONAL DEPOSIT , FREE OF RETURN AND PAYABLE IN CASH ON YOUR FIRST DEMAND AND NOTWITHSTANDING ANY CONTESTATION BY THE TENDERS THE SUM OF :

نتعهد بمقتضى هذا بأن نضع تحت تصرفكم كتأمين ابتدائي ، بدون عائد ، وقابلاً للدفع نقداً عند أول طلب منكم بغض النظر عن أى اعتراض من مقدمي العطاء مبلغ :

THIS UNDERTAKING REMAINS IN FORCE UNTIL A DECISION IS TAKEN ON THE OFFER AND (IN THE EVENT OF THE WHOLE OR PART OF THE OFFER BEING ACCEPTED) UNTIL THE TENDERS HAS PROVIDED SUCH FINAL GUARANTEE DEPOSIT AS MAY BE REQUIRED BUT IT WILL IN ANY CASE AUTOMATICALLY EXPIRE ON THE / /

ويسرى مفعول هذا التعهد إلى أن يتخذ قرار بشأن العطاء (وفى حالة قبول العطاء كله أو جزء منه) الى أن يقوم مقدم العطاء بإيداع الضمان النهائي الذي قد تطلبوه ولكنه سينتهي على أى حال تلقائياً فى / /

CONSEQUENTLY ANY CLAIM FOR PAYMENT IN RESPECT THEREOF SHOULD BE MADE TO US BY THE

وعليه فان أى مطالبة بالقيمة فى هذا الشأن يجب أن تقدم إلينا فى ميعاد غايته

ACCOMPANIED BY : لا شـــــئ

مصحوبة بالآتي :

AT THE LATEST SHOULD WE RECEIVE NO CLAIM FOR PAYMENT FROM YOU BY THAT DATE, OUR LIABILITY WILL CEASE "IPSO FACTO "AND THE PRESENT LETTER OF GUARANTEE WILL DEFINITELY BECOME NULL AND VOID.

فإذا لم تصلنا منكم أية مطالبة بالقيمة في هذا الشأن حتى ذلك التاريخ ، ينقضي التزامنا من تلقاء نفسه وتصبح هذه الضمانة نهائياً منتهية .

THIS GUARANTEE IS NOT TO BE USED AS FINAL GUARANTEE. PLEASE BE INFORMED THAT THE PHOTOCOPIES AND COPIES OF THIS LETTER ARE CONSIDERED NONNEGOTIABLE COPIES .

كما وأنه لا يجوز استخدامه كضمان نهائي . ونود الإحاطة أن الصور الفوتوغرافية والكربونية لهذا الخطاب لا يعتد بها .

PLEASE RETURN TO US THIS LETTER OF GUARANTEE ON EXPIRY DATE FOR CANCELLATION .

والرجاء أن تعيدوا إلينا خطاب الضمان هذا عند انتهاء المدة للإلغاء .

WE CERTIFY THAT WE HAVE NOT EXCEEDED THE LIMIT PERMITTED TO US FOR ISSUING LETTERS OF GUARANTEE .

ونقر بأننا لم نتعد الحد المصرح لنا به لإصدار خطابات الضمان .

YOURS FAITHFULLY ,

وتفضلوا بقبول فائق الاحترام ،

يعتبر خطاب الضمان لاغياً ولايعتد به فى حالة وجود أى تعديل أو كشط أو إضافة الى البيانات الواردة به حتى إن كانت معتمدة

التوقيع المعتمد

AUTHORIZED SIGNATURE

Date : / /

التاريخ : / /

PERFORMANCE BOND NO.

خطاب الضمان نهائي رقم

Messrs Alexandria Container & Cargo Handling Co. Quay 23
Containers Terminal - Port of Alexandria

السادة / شركة الإسكندرية لتداول الحاويات والبضائع
رصيف 23 محطة الحاويات - ميناء الإسكندرية

We hereby guarantee

نضمن بمقتضى هذا

To the extent of
(Say

في حدود مبلغ
(فقط

In respect of

بخصوص

And we undertake to pay this sum on your first demand , notwithstanding any contestation . This Letter of guarantee holds good until the / /

ونتعهد بدفع هذا المبلغ لدى أول طلب منكم وبدون النظر الى أية معارضة . ويسرى مفعول خطاب الضمان هذا
حتى / /

Consequently , any claims for payment in respect thereof should be made to us by that date accompanied by :

وعلى ذلك فان أية مطالبة بالقيمة فى هذا الشأن يجب أن تقدم لنا حتى هذا التاريخ مصحوبة بالآتي :

لا شـــــئ

should we receive no claim for payment from you by that date , our liability will cease " ipso facto " and the present Letter of guarantee will definitely become null and cancelled and our guarantee expired .

فاذا لم تصلنا منكم أية مطالبة بالقيمة حتى ذلك التاريخ ينقضى التزامنا من تلقاء نفسه ويصبح هذا الضمان لاغياً وضماننتا منتهية .

Please return to us this Letter of guarantee on expiry date for cancellation .

الرجاء إعادة خطاب الضمان هذا إلينا عند انتهاء المدة للإلغاء

please be informed that the photocopies and copies of this letter are considered non negotiable copies .

ونود الإفادة أن الصور الفوتوغرافية والكربونية لهذا الخطاب لا يعتد بها

We certify that we have not exceeded the limit permitted to us for issuing letters of guarantee .

ونقر بأننا لم نتعد الحد المصرح لنا به لإصدار خطابات الضمان .

Yours faithfully ,

وتفضلوا بقبول فائق الاحترام ،

يعتبر خطاب الضمان لاغياً ولايعتد به فى حالة وجود أى تعديل أو كشط أو إضافة الى البيانات الواردة به حتى إن كانت معتمدة

التوقيع المعتمد
Authorized signature

ملحوظة : يراعى أن يصدر خطاب الضمان من بنك محلى درجة أولى معتمد من البنك المركزي .

Date : / /
ADVANCE PAYMENT L/G NO.

التاريخ : / /
خطاب ضمان الدفعة المقدمة رقم

Messrs, Alexandria Container & Cargo Handling Co.
Quay 23 Containers Terminal - Port of Alexandria

السادة / شركة الإسكندرية لتداول الحاويات والبضائع
رصيف 23 محطة الحاويات - ميناء الإسكندرية

We hereby guarantee

نضمن بمقتضى هذا

To the extent of
(Say

في حدود مبلغ
(فقط

In respect of

بخصوص

And we undertake to pay this sum on your first demand , notwithstanding any contestation . This Letter of guarantee holds good until the / /

وتتعهد بدفع هذا المبلغ لدى أول طلب منكم وبدون النظر الى اية معارضة . ويسرى مفعول خطاب الضمان هذا حتى / /

Consequently , any claims for payment in respect thereof should be made to us by that date accompanied by :

وعلى ذلك فان اية مطالبة بالقيمة فى هذا الشان يجب أن تقدم لنا حتى هذا التاريخ مصحوبة بالآتى :

لا شـــــئ

should we receive no claim for payment from you by that date , our liability will cease " ipso facto " and the present Letter of guarantee will definitely become null and cancelled and our guarantee expired .

فاذا لم تصلنا منكم أية مطالبة بالقيمة حتى ذلك التاريخ ينقضى التزامنا من تلقاء نفسه ويصبح هذا الضمان لاغياً وضماننتا منتهية .

Please return to us this Letter of guarantee on expiry date for cancellation .

الرجا إعادة خطاب الضمان هذا الينا عند إنتهاء المدة للالغاء

please be informed that the photocopies and copies of this letter are considered non negotiable copies .

ونود الأفادة أن الصور الفوتوغرافية والكربونية لهذا الخطاب لايعتد بها .

We certify that we have not exceeded the limit permitted to us for issuing letters of guarantee .

ونقر بأننا لم نتعد الحد المصرح لنا به لإصدار خطابات الضمان .

Yours faithfully ,

وتفضلوا بقبول فائق الاحترام ،

يعتبر خطاب الضمان لاغياً ولايعتد به فى حالة وجود أى تعديل أو كشط أو إضافة الى البيانات الواردة به حتى إن كانت معتمدة

التوقيع المعتمد
Authorized signature

ملحوظة : يراعى أن يصدر خطاب الضمان من بنك محلى درجة أولى معتمد من البنك المركزي .

إقـرار

أقر فى حالة ترسية العطاء على شركتنا أن تلتزم بالاتى :

1. نتعهد بأن نقدم كافة البيانات اللازمة لشراء قطع الغيار من منتجها الاصلى الى الطرف الاول وذلك على النحو التالى :

أ. أن تكون جميع المكونات الرئيسية التى تم تركيبها بالاوناش مثبت عليها لوحة البيانات الخاصة بها (باللغة الانجليزية) من المنتج الاصلى .

ب. توريد العدد المطلوب من مراجع وكتالوجات قطع الغيار (باللغة الانجليزية) للمكونات الرئيسية التي تم تركيبها بالأوناش من منتجها الأصلي موضحا بها أسلوب طلب قطع الغيار وارقامها وكمياتها بكل معدة مركبة بالونش وكذا توريد فلاشة للحاسب الالى موضحا بها كافة البيانات المطلوبة لقطع الغيار .

ج. تقديم جميع بيانات الاجزاء النمطية التي تم تركيبها بالأوناش (الفلاتر – الاويل سيلات – السيور – الخراطيم – الوايرات – الرولمانات بلى – الكابلات – الفيوزات ..... الخ) التى تمكن شركة الاسكندرية لتداول الحاويات والبضائع من شرائها من اى مصدر محلى او اجنبى دون الرجوع لنا .

2. نتعهد بأن لانفرض أي قيود أو نعقد أي اتفاقات جانبية مع موردى الباطن (المنتجين الأصليين للأجزاء المركبة بالأوناش) يترتب عليها رفض موردى الباطن مطالب الشركة من قطع الغيار او المغالاة فى اسعارها السائدة فى السوق

3. نتعهد بتوفير قطع الغيار اللازمة والضرورية وخاصة الاساسى منها لتغطية تشغيل الاوناش لمدة لا تقل عن 5 سنوات من تاريخ الاستلام النهائى .

المقر بما فية :

أسم الشركة :

أسم ممثل الشركة فى العقد :

التوقيع :

التاريخ :

TO WHOM IT MAY CONCERN

HEREBY I ……... BOARD DIRECTOR OF …… AND DULY AUTHORIZED TO ENGAGE THE COMPANY, GIVE POWER OF ATTORNEY TO MESSRS. …….. OUR COMMERCIAL AGENT IN A.R.E TO SIGN THE CONTRACT FOR THE SUPPLY OF …… ACCORDING TO OUR OFFER NO. ……. FOR BRANCH OF ALEXANDRIA CONTAINER AND CARGO HANDLING CO, PRIVATE FREE ZONE, ON BEHALF OF OUR COMPANY.

NAME **:**

SIGNATURE **:**

DATE **:**

PROFORMA INVOICE NO. DATE / /

MESSRS:
BRANCH OF ALEXANDRIA CONTAINER AND CARGO HANDLING CO,
PRIVATE FREE ZONE
QUAY 23 PORT OF ALEXANDRIA
ALEXANDRIA, EGYPT

ITEM	DESCRIPTION		QTY	UNIT PRICE	TOTAL PRICE
1	VALUE OF EQUIPMENT (DDP) including TEST, INSTALLATION, INSURANCE AND START UP ON SITE				
2	PERSONNEL TRAINING	IN FACTORY			
		ON SITE			
3	COST FOR COMPANY ENGINEERS INSPECTION				
4	CHARGES FOR INTERNATIONAL SOCIETY				
	TOTAL VALUE DDP ON SITE				

COUNTRY OF ORIGIN :
PORT OF SHIPMENT :
DELVERY PERIOD CIF ON SITE :
PAYMENT TERMS :
VALIDITY :

WE CONFIRM THAT THIS PROFORMA INVOICE IS TRUE AND CORRECT.

عطـاء (يرفق بالمظروف المالى)

نتشرف نحن شركة ..... .

وعنوانهـــا ....

تليفـــون ..... : فاكـس..... .....

ويمثلها السـيد ....

بصفتـــه ....

بالتقدم لسيادتكم بعطائها عن العملية: المناقصة العامة **لتوريد عدد (7) وناش ساحة** لفرعي الشركة بمحطة حاويات الإسكندرية والدخيله "منطقة حرة خاصة"

وذلك بقيمة إجمالية وقدرها: ..... فقط .....لاغير

ونتعهد بالتعاقد طبقا للنصوص الواردة بكراسة الشروط والمواصفات و العقد المرفق بها مع عدم التحفظ أو تعديل أي بند من بنوده.

في حالة مصاحبة العطاء لأية تعديلات أو تحفظات يكون لشركة الإسكندرية لتداول الحاويات و البضائع الحق في استبعاد العطاء دون إبداء الأسباب .

و قد تم تقديم هذا العطاء بعد تبيننا التام لظروف تنفيذ العملية و شروط التوريد DDP بمينائي الاسكندرية والدخيلة والعطاء ساريا لمدة تسعين يوما من تاريخ فض المظاريف الفنية على أن تكون الأسعار غير شاملة ضريبة المبيعات و الرسوم الجمركية .

و نقبل أن يكون لشركة الإسكندرية للتداول الحاويات و البضائع - فرع منطقة حرة خاصة - الحق في قبول أو استبعاد العطاء طبقا لما تراه دون أي التزامات من ناحيتها .

و مرفق بالعطاء المستندات الأتية :

1- مبلغ وقدره 210000 دولار او ما يعادله بالعملة قيمة التأمين المؤقت يسدد بإحدي طرق الدفع الإلكتروني (فيزا كارد او تحويل بنكي علي احد حسابات الشركة البنكية) او بخطاب ضمان بنكي غير مشروط او بشيك مقبول الدفع.

2- صورة البطاقة الضريبية.

3- صورة السجل التجاري موضح به نشاط الشركة في نفس مجال المناقصة.

4- استمارة 14 س الوكلاء التجاريون

5- سابقة أعمال مدعمة بالمستندات اللازمة .

6- إيصال شراء كراسة الشروط و المواصفات .

على أن يتم وضع التأمين المؤقت مبلغ وقدر 210000 دولار أو ما يعادله بالعملة داخل المظروف الفني إذا كان خطاب ضمان أو شيك مقبول الدفع أو إيصال السداد إذا كان نقدا بعد سداده مباشرة إلى خزينة الشركة.

و تفضـلوا سيادتكم بقبـول فائق التحيـة و الاحتـرام ،،،

التوقيع .....

المورد .....

CHAPTER IX THE CONTRACT

Contract for the Supply and commission of (7) RTG's / 40 Tons

FOR branch of ALEXANDRIA CONTAINER & cargo handling company For Alexandria and DEKHEILA container terminals – Private free zone,

عقد توريد و تسليم
عدد (7) ونش ساحة عملاق

حمولة 40 طن لفرع شركة الاسكندرية لتداول الحاويات والبضائع - لمحطتي حاويات الاسكندرية و الدخيلة – منطقة حرة خاصة

Between

بين

Alexandria Container & Cargo Handling Co.
(Branch of private free zone)

شركة الاسكندرية لتداول الحاويات و البضائع
(فرع المنطقة الحرة الخاصة)

And

و

Second party

الطرف الثانى

....

On day dated / / 202 this contract has been drawn by and between:-

1- **Alexandria Container & Cargo Handling Company "Private Free Zone"** a company of the Holding Maritime Transport Company and represented legally by general / Alaa mohamed ibrahium ahmed chief executive officer (CEO) - address Berth No. 23 Alexandria Port – Alexandria FaxNo. 03/4862124
e-mail alexcont@alexcont.com

(First Party)

PREAMBLE

WHEREAS, Alexandria Container & Cargo Handling Company S.A.E. (The First Party) published the General Tender for year for the supply and delivery of Seven (7) Rubber Tired Gantry Cranes (RTG) Capacity 40Ton / Fully Erected DDP in the (First Party) Company site in Alexandria and Dekheila Container Terminals according to the Technic-al specifications and conditions in the published tender documents and what was concluded by the Technical & Financial evaluation committees in the tender and the documents presented by them which were concluded by the acceptance of the offer no - submitted by with total value.--.

(7) Rubber Tired Gantry Cranes (RTG) **FOR PRIVATE FREE ZONE BRANCH IN Alexandria and Dekheila CONTAINER TERMINAL**

- Value of the cranes (DDP) company sites at Alexandria and DEKHEILA container terminal
  - 3 RTGs for ACHC Alexandria terminal
  - 4 RTGs for ACHC DEKHEILA terminal
- Tests and operation in the Factory and on site.
- Charges for International Inspection Society in the factory.
- Cost of the Inspections of (9) engineers for the first party without the days of travel and return at the factory Two weeks
- Cost of the training of (12) trainees for Two weeks in the factory.
- Cost of training on site.
- As per Art (4) of tender documents, custom clearance will be carried out by the supplier and on his account (including

انه في يوم ..... الموافق .. / .. / 202
تحرر هذا العقد بين كل من :-

1- شركة الإسكندرية لتداول الحاويات والبضائع فرع المنطقة الحرة الخاصة " شركة مساهمة مصرية إحدى الشركات التابعة للشركة القابضة للنقل البحري ويمثلها قانونا السيد اللواء / علاء محمد إبراهيم احمد العضو المنتدب التنفيذي ومقرها رصيف 23 ميناء الإسكندرية البحري ويشار إليها هنا فيما يلي **بالطرف الأول**.
فاكس رقم 4862124 /03)
البريد الالكتروني : alexcont@alexcont.com

(طرف أول)

تمهيد

- *طرحت شركة الإسكندرية لتداول الحاويات والبضائع (الطرف الاول) المناقصة العامة رقم ( ) لتوريد و تسليم عدد 7 (سبعة) ونش ساحة عملاق حمولة 40 طن Fully-Erected DDP موقع فرع الشركة - الطرف الأول" بمحطتي حاويات الاسكندرية و الدخيلة و ذلك طبقا للمواصفات الفنية و الاشتراطات الواردة بكراسة الشروط و المواصفات الخاصة بالطرح و ما انتهت اليه لجنتى التقييم الفنى و المالى فى المناقصة و المستندات و الاقرارات المقدمة بهم. وذلك على النحو التالى :*
- *عدد (7) ونش ساحة لفرع المنطقة الحرة الخاصة لمحطتي حاويات الاسكندرية والدخيلة*

- *والاسعار تشمل الآتى:-*
- *قيمة الاوناش DDP موقع الشركة الطرف الاول بمحطتي حاويات الاسكندرية والدخيلة*
  - *عدد 3 ونش ساحة لفرع الشركة بمحطة حاويات الاسكندرية*
  - *عدد 4 ونش ساحة لفرع الشركة بمحطة حاويات الدخيلة*
- *الاختبارات و التشغيل بالمصنع و الموقع.*
- *مصاريف هيئة التفتيش الدولية بالمصنع.*
- *مصاريف تفتيش عدد 9 من مهندسى الشركة لمدة اسبوعين بالمصنع بخلاف ايام السفر والعودة.*
- *قيمة التدريب بالمصنع لعدد (12) مهندس و فنى لمدة (اسبوعين)*
- *قيمة التدريب بالموقع.*
- *رسوم التراكى و رسم تجهيز و استخدام الرصيف و مصاريف التفريغ و مصاريف التخليص الجمركى و التخزين بجمهورية مصر العربية و النقل حتى موقع فرع الشركة طبقا لنص المادة رقم (4)*

من كراسة الشروط و المواصفات الخاصة بالمناقصة بعاليه.(في حالة البيع DDP)

dockage, wharfage, unloading & discharging charges and local transportation till site storage if any in Egypt.(IN CASE OF DDP)

- ON / /202 THE SECOND PARTY SUBMITTED a proforma invoice no. dated / /202 . In case of DDP on / /2021 the second party submitted the final letter of guarantee no. dated / /202 with a total value of (only) representing 10% of the total contract value as a **performance guarantee , issued by bank without any conditions or reservations payable at the first party's immediate demand.**
- **on / /2021 the second party submitted the letter of guarantee no. dated / /2021 with total value (only) representing 20% of the total contract value , issued by bank without any conditions or reservations payable at the first party's immediate demand .**

• بتاريخ / / 202 قدمت الشركة (الطرف الثانى) فاتورة مبدئية تحت رقم ( ) مؤرخة / / 202 في حالة البيع DDP

• بتاريخ / / 202 قدمت الشركة (الطرف الثانى) خطاب ضمان بنكى نهائى رقم صادر بتاريخ / / 202 بمبلغ اجمالى (فقط وقدره

لاغير) بواقع 10% من قيمة العقد كتامين نهائى لكفالة تنفيذه صادر من بنك خال من أيه شروط او تحفظات و مقبولا للدفع لصالح الطرف الاول عند اول طلب .

• بتاريخ / / 202 قدمت الشركة (الطرف الثانى) خطاب ضمان بنكى خاص بالدفعه المقدمة رقم صادر بتاريخ / / 202 بمبلغ اجمالى (فقط

لاغير) بواقع 20% من قيمة العقد صادر من بنك خال من أيه شروط او تحفظات و مقبولا للدفع لصالح الطرف الاول عند أول طلب .

وقد أتفق الطرفان على ما يلى :-

ART.1

The above preamble, all papers and documents related to tender no……. of the , the agreed documents, Second party offer & exchange letters and ACHCCO tender book, the accepted mutual correspondences by first party, the proforma invoice are all considered an integral part hereof.

البند الاول

يعتبر التمهيد سالف الذكر و كافه الاوراق و المستندات المتعلقه بالمناقصه العامه رقم ( ) لسنه ( ) وعرض الطرف الثانى و خطاب الاسناد رقم ( ) و التعهدات و الاقرارات و الايضاحات و ما جاء بالمراسلات المتبادله بين الطرفين محل قبول الشركة الطرف الأول و الفاتورة المبدئية المقدمه من الطرف الثانى جزء لا يتجزأ من هذا العقد ومكمله لاحكامه

ART.2

The 2nd Party is committed to supply (7) Rubber Tired Gantry Cranes (RTG) 40 Tonnes FULLY - ERECTED DDP on site of the branch of the company in Alexandria and dekheila Container Terminal ccording to Tender documents and technical specifications , Fully Erected and its supplement in compliance with the Performa Invoice no dated …/…./……

البند الثاني

يلتزم الطرف الثانى بتوريد عدد (7) ونش ساحة عملاق حمولة 40 طن DDP FULLY-ERECTED موقع الشركة فرع المنطقة الحرة الخاصة بمحطتي حاويات الاسكندرية والدخيلة – طبقا لما جاء بكراسة الشروط و المواصفات الفنية كاملة التركيب والتجميع و مستلزماتها الواردة تفصيلا بالفاتورة المبدئية Proforma Invoice رقم والمؤرخة بتاريخ ...../...../.....

ART. 3

البند الثالث

The final total value of this contract is ( ) DDP on site of the branch of the company (First Party) in the Alexandria and El- Dekheila Container Terminal " Private Free Zone" Alexandria Port and prices include:-

تحددت قيمة هذا العقد بصفة إجمالية ونهائية بمبلغ وقدره ( ) DDP موقع فرع الشركة (الطرف الاول) بمحطتي حاويات الاسكندرية والدخيلة - منطقة حرة خاصة - ميناء الاسكندرية والاسعار تشمل:-

- ***Charges of the international inspection society in the factory.***
- الاختبارات و التشغيل بالمصنع و الموقع.
- ***Cost of inspections (9) company Engineers (2 weeks) in the factory.***
- مصاريف هيئة التفتيش الدولية بالمصنع.
- ***Cost of the training of (12) trainees for (2 weeks) in the factory.***
- مصاريف تفتيش لعدد (9) مهندس الشركة بالمصنع.
- ***Cost of training at site.***
- قيمة التدريب بالمصنع لعدد (12) مهندس، فني لمدة (اسبوعين).
- ***As per (Art 4) of the tender documents, custom clearance will be carried out by the supplier and on his account (including dockage, wharfage, unloading & discharging charges and local transportation until the company site*** **PRIVATE FREE ZONE BRANCH IN Alexandria and DEKheila CONTAINER TERMINAL** ***Egypt.***
- قيمة التدريب بالموقع.
- رسوم التراكى و رسم تجهيز و استخدام الرصيف و مصاريف التفريغ و مصاريف التخليص الجمركى و التخزين بجمهورية مصر العربية و النقل حتى موقع الشركة فرع المنطقة الحرة الخاصة لمحطتي الاسكندرية والدخيلة طبقا لنص المادة رقم (4) من كراسة الشروط و المواصفات الخاصة بالمناقصة بعاليه.

It is not allowed to the second party under any condition to ask for any increase in prices for what so ever reason. The 2nd party bears the confirmation fees if requested and the value is payable according to the following payment terms

و لا يجوز للطرف الثانى طلب زيادة الاسعار لاى سبب من الاسباب و يلتزم الطرف الأول بالوفاء بتلك القيمة عن طريق فتح اعتماد مستندى غير قابل للالغاء و قابل للتجزئة و يتحمل الطرف الثانى مصاريف تعزيزه فى حالة طلبه ذلك على ان يكون الوفاء بهذه القيمة على دفعات على النحو التالى:-

- ***20 % of the contract value against irrevocable and unconditional letter of guarantee issued by a local Egyptian bank with the same value and currency valid for a period of*** *2 months* ***from the date of arrival of the contracted items at the 1st Party site at Alexandria EL-DEKHEILA Container Terminals – "Private Free Zone" - , and according to the attached form as shown in the tender documents.***

- ***20% (عشرون فى المائة) من قيمة العقد دفعة مقدمة مقابل خطاب ضمان بنكى صادر من أحد البنوك داخل جمهورية مصر العربية بنفس القيمة و ذات العملة غير قابل للالغاء و غير مقترن باى شروط أو تحفظات وسارى المفعول لمدة شهرين من تاريخ وصول الاصناف المتعاقد عليها الى موقع فرع الشركة (الطرف الاول) بمحطتي الحاويات بميناء الاسكندرية و الدخيلة- منطقة حرة خاصة - وطبقا لنموذج خطاب ضمان الدفعة المقدمة المرفق بكراسة الشروط والمواصفات.***

- ***70 % from the value of each crane after acceptance and preliminary receipt on site (first party)***

- ***70% (سبعون فى المائة) من قيمة كل ونش يتم قبوله واستلامه استلاما ابتدائيا بموقع الشركة (الطرف الأول).***

- *10 % remaining from the value of the contract against a certificate issued and signed by both parties confirming that the training on the supplied operating cranes is completed, the training should be terminated within 2 weeks from the date of acceptance and preliminary hand over after completion of testing at site.*
- *Each payment will be paid by letter from First Party to the Bank.*

- *10% (عشرة فى المائة) الباقية من قيمة التعاقد تدفع مقابل شهادة موقعة من الطرفين تفيد اتمام تدريب الافراد التابعين للطرف الاول بالموقع على المعدات بعد تشغيلها. على ان يتم انجاز هذا التدريب فى مدة اسبوعين من تاريخ قبول الاوناش واستلامها استلاما ابتدائيا بعد انتهاء الاختبارات عليها بالموقع .*

- *على ان يتم سداد الدفعات الواردة بهذا البند بموجب خطاب توجهه الشركة (الطرف الاول) الى البنك مصدر الاعتماد.*

ART. 4

البند الرابع

The 2nd Party is committed to bear all taxes and fees that are imposed outside the First Party territory and to finalize the custom clearance procedures on the contracted items on his expense and under his responsibility including all port fees such as and not limited to berthing, dockage, wharfage, piloting and any other fees till entering 1st Party receipt sites at Alexandria and dekheila Terminals "Private Free Zone"
Also, undertake to pay any banking charges due to the delay in the delivery stated in the contract.

يلتزم (الطرف الثانى) بكافة الضرائب والرسوم وغيرها من الرسوم التى تفرض خارج موطن الطرف الأول كما يلتزم بانهاء اجراءات التخليص الجمركى على الاصناف موضوع هذا العقد على نفقته وتحت مسئوليته بدءا من تراكى السفينة وتفريغ الاوناش وحتى دخولها موقع فرع الشركة بمحطتي الاسكندرية والدخيلة (منطقة حرة خاصة) كما يلتزم بسداد أى مصروفات بنكية تترتب عن التأخير فى التوريد عن الموعد المحدد بالعقد.

ART. 5

البند الخامس

The Second Party is committed to supply and deliver (7) RTG's 40Tons FULLY - ERECTED at the company site (First Party) DDP in Alexandria and the DEKHEILA Container Terminals within max period of months from the date of contract signing and opening of an operable L/C DDP – the site of the company in Alexandria and DEKHEILA Terminals – "Private Free Zone" - and the time taken on the custom clearance of the shipments is not included in the delivery period.

يلتزم (الطرف الثانى) بتوريد عدد (7) ونش ساحة عملاق حمولة 40 طن كاملة التركيب و التجميع FULLY-ERECTED بفرع الشركة DDP (الطرف الاول بمحطتي حاويات الاسكندرية والدخيلة فى موعد أقصاه من تاريخ توقيع العقد و فتح اعتماد مستندى عامل DDPموقع الشركة بمحطتي الاسكندرية والدخيلة منطقة حرة خاصة ولايدخل فى حساب هذا الميعاد مدة التخليص على مشمول الرسالة بالجمارك و

- *In case of delay of the 2nd Party in the supply of the whole contracted items or part of it, as well as the rejected items, after the date fixed in the contract, the 1st Party may grant to the 2nd Party an extension period for the supply and the 1st Party has the right to apply in respect of the delay as (1%) for every week or part of week from the value of undelivered or delayed items with maximum (3%) from this value. The delay penalty applies by just happening without need to notice or taking any legal procedures. In case the delayed items would hinder the cranes use with full satisfaction within the delivery period, the delay penalty will be calculated for the full value of the crane.and also in case of crane against operation stop during the Warranty period*

- *فاذا تأخر الطرف الثانى فى توريد الاصناف المتعاقد عليها أو اى جزء منها فى الميعاد المحدد بالعقد .. ويدخل فى ذلك الاصناف المرفوضة فيجوز للطرف الاول اعطاؤه مهلة اضافية للتوريد على ان يوقع عليه غرامة تأخير عن مدد التأخير أو عن هذه المهلة مقدارها 1% عن كل اسبوع تأخير أو جزء من الاسبوع من قيمة الكمية أو الاصناف التى يتأخر الطرف الثانى فى توريدها بحد أقصى 3% من هذه القيمة و تستحق الغرامة بمجرد حصول التأخير دون حاجة الى تنبيه أو انذار أو اتخاذ اية اجراءات قضائية.*
و اذا كانت الاصناف المتأخرة تحول دون الانتفاع بالونش أو استغلاله على الوجه الأكمل فى الميعاد المذكور فتحسب الغرامة على القيمة الاجمالية للونش .كما تحسب الغرامة كذلك في حالة تعطل الونش خلال فترة الضمان

ART.6

The 1st Party has the right to increase the quantity of contracted items with four extra crane and not exceeding 50% from the contracted items and with the same conditions and specifications till the preliminary receipt of the contracted items.

البند السادس

يحق للطرف الاول طلب توريد عدد اربعة ونش اضافى من الاوناش وذلك بما لايجاوز 50% من العدد المتعاقد عليه بنفس الشروط والمواصفات والاسعار المتعاقد عليها خلال مدة التوريد حتى تاريخ الاستلام الابتدائى للاصناف المتعاقد عليها.

ART. 7

The Second Party will bear any expenses or custom fees for the items missing or supplied after the supply of cranes – unless it should be delivered after arrival of the cranes

البند السابع

يتحمل المورد (الطرف الثانى) اية رسوم أو مصروفات تنشا عن الاصناف العجز أو الاصناف التى تورد بعد توريد الاوناش موضوع التعاقد الا فيما يجب ان يسلم بعد وصول الاوناش

ART. 8

In case the 1st Party finds that the delivered items or part of it are not complying to the tender documents and specifications or are not complete, the 1st Party will inform the 2nd Party and their local agent through a notified fax and registered mail letter explaining the reason of

البند الثامن

اذا تبين للطرف الاول وجود اية مخالفة للشروط والمواصفات فى الأصناف المتعاقد عليها أو وجد بها نقص فعليه أن يخطر الطرف الثانى بذلك على عنوانه بالخارج بموجب فاكس تؤيد بكتاب لاحق .. ويعتد بتاريخ الفاكس كما يخطر فى مصر على محله المختار بموطن وكيله التجارى بموجب فاكس فى ذات التاريخ يؤيد بخطاب مسجل مصحوب بعلم الوصول لاحق بأسباب رفض الاصناف المخالفة

وبوجوب سحبها وتوريد بدلا منها مطابقة للمواصفات خلال 15 يوم (خمسة عشر يوما) على الاكثر من اليوم التالى لاخطاره بذلك أو وكيله التجارى .

rejecting the items not complying and the request of withdrawing and delivery it within 15 days from the next day of receiving that fax and registered mail letter to the supplier or his agent.

فاذا تأخر الطرف الثانى فى سحبها فيكون للطرف الاول الحق فى تحصيل مصروفات تخزين بواقع 2% (اثنان فى المائة) من قيمتها عن كل اسبوع تأخير أو جزء منه لمدة اقصاها اربعة اسابيع وبعد انتهاء هذه المدة تتخذ اجراءات بيعها لحساب الطرف الثانى وتخصم تلك المصروفات من ثمن البيع و دون الاخلال بما جاء بالبند السادس من هذا العقد .

In case the 2nd Party did not withdraw the rejected item(s) within the allowed period, a 2% storage fees of the value of this item will be imposed on each week or part of week for a maximum period of 4 weeks and after this period the 1st Party will take the required procedures to sell this item on behalf of the 2nd Party and deduct the above mentioned fees from the selling price, such that it does not contradict what is mentioned in item No.6 of this contract.

البند التاسع

ART. 9

- يلتزم الطرف الثانى بأن يتم توريد المكونات الميكانيكية و الكهربائية والالكترونية للاوناش (7) ونش موضوع التعاقد من الصانع الاصلى وليس بترخيص و ذلك طبقا لقائمة موردى الباطن المقدمة بالعرض و المرفقة بالعقد.

- The 2nd Party is committed to supply the mechanical, electric and electronic components for the cranes (7) RTG from the original manufacturers and not through a licensed one..

- كما يلتزم بتقديم شهادة منشأ من الصانع الاصلى لجميع المكونات الموردة و أن تكون جميع المكونات الرئيسية بالونشين مثبت عليها لوحة بيانات خاصة بها (باللغة الانجليزية)

- And to submit a certificate of origin from the original manufacturer covering all supplied items and all main items of the crane should have a plate with main characteristiques (in English Language)

- كما يلتزم بتوفير قطع الغيار اللازمة و الضرورية و خاصة الاساسى منها و ذلك عند طلبها لتغطية تشغيل الاوناش لمدة لا تقل عن (5) سنوات تالية لسنة الاستلام النهائى .

- The 2nd Party is committed to provide the necessary spare parts especially the major ones upon request to cover the operation of the cranes for a period not less than 5 years,

- يحق للطرف الاول شراء قطع الغيار من موردى الباطن مباشرة وطبقا للارقام الكودية لقطع الغيار لكل ونش والواردة بكشوف قطع غيار الصناع الاصليين فى حالة عدم توريدها من قبل الطرف الثانى وعلي ان يتحمل الفروق المالية الناجمة عن ذلك.

- The 2nd Party allows the 1st Party to purchase spare parts directly from the sub-suppliers, if the 2nd Party did not supply it, according to the code no. of the spare parts for each machine stated in the original manufacturers' spare parts list and not delivered by the second party,

-

ART.10

The 2nd Party is allowed to request a modification in the time schedule if necessary for them. In this case the 1st Party may accept subject that the modifications do not influence the total delivery period and without contradiction to items 6 and 18 of this contract.

البند العاشر

يجوز للطرف الثانى طلب اجراء بعض التعديلات فى البرنامج الزمنى المتفق عليه للتوريد اذا اقتضى الامر ذلك وفى هذه الحالة يجوز للطرف الاول الموافقة على هذه التعديلات بدون التأثير على الفترة الكلية للتوريد ودون الاخلال باحكام البندين السادس والثامن عشر من بنود هذا العقد .

ART. 11

The two parties agreed that the International inspection society (LR, GL, ...), will be the authorized party to revise the design drawings to revise the design drawings, decide to what extent it is complying to the tender documents and technical specifications, supervise the processes of design, fabrication, erection, perform tests according to the time schedule for the supply, and issue an original certificate without any comment after finishing the following stages:

1. ***Fabrication***
2. ***Assembly & Erection***
3. ***Testing & Commissioning***

The 2nd Party bears the International Society fees at the factory. The First Party bear the international society fees on site

First party has the right to send (3) inspection groups, the first group consists of (2) engineers, the second group consists of (3) engineers and the third group consists of (4) engineers, for 2 weeks for each group to inspect the process of fabrication at factory, all crane parts, and functions provided that every inspection group of engineers to write a report with their remarks and the second party has to close these remarks before the shipping and that in case of DDP according to the item No.1-14 of the technical specifications. The 2nd Party will bear all accommodation, internal transportation, air tickets expenses (economic class) The 2nd Party is

البند الحادي عشر

اتفق الطرفان على ان تكون هيئة التفتيش الدولية (LR, GL, ...) و هى الجهة المعتمدة لمراجعة الرسومات التصميمية وبيان مدى مطابقتها لكراسة الشروط والمواصفات الفنية موضوع التعاقد والاشراف على عملية التصميم والتصنيع والتركيب واجراء الاختبارات طبقا للبرنامج الزمنى للتوريد واصدار شهادة اصلية معتمدة منها تفيد بتمام جميع المراحل الاتية دون ملاحظات

1- التصنيع
2- التجميع والتركيب
3- الاختبار و التشغيل

.على ان تكون جميع اتعاب هيئة التفتيش فى المصنع على نفقة الطرف الثانى. و على ان تكون جميع اتعاب هيئة التفتيش فى الموقع على نفقة الطرف الاول. كما يحق للطرف الاول ايفاد عدد (3) مجموعة تفتيش المجموعة الاولى عدد (2) مهندس المجموعة الثانية عدد (3) مهندس والمجموعة الثالثة عدد (4) مهندس و لمدة أسبوعين لكل مجموعة وذلك للقيام بالتفتيش على عمليات التصنيع بالمصنع وكل اجزاء الاوناش واختبار الوظائف على أن تقوم كل مجموعة من المهندسين بكتابة تقرير لكل الملاحظات التى تظهر عند التفتيش على أن يقوم الطرف الثانى بتلافى تلك الملاحظات قبل الشحن في حالة البيع DDP طبقا لما هم موضح بالبند 1-14 من المواصفات الفنية على ان تكون جميع تكاليف الاقامة والتنقلات الداخلية و تذاكر السفر بالطائرة (درجة اقتصادية) على نفقة الطرف الثانى كما يلتزم الطرف الثانى بتسليم الشهادات الصادرة من هيئة التفتيش الدولية عقب كل مرحلة بما لا يجاوز خمسة عشر يوم بعد كل مرحلة.

. على ان يبدء التدريب بالمصنع قبل بدء الاختبارات للاوناش بشهر

committed to submit certificates issued by third party after each stage in a maximum period of 15 days after each stage.
And this training in the factor should begin before the start of cranes commissioning for one month.

ART.12

The second party is committed to inform the first party due two months prior to shipping the RTGs by the arrival date of vessel carrying the RTGs to the first party sites in Alexandria and EL -DEKHEILA terminals – private free zone to prepare the sites to receive the RTGs. the first party is obliged to reply in maximum period of seven work days by getting the site prepared to receive the RTGs , in case the site is not ready to receive the RTGs , the second party will be informed second party will have the right to delay the delivery period till the first party gets the site ready the time extension is equal to the delay in delivery of the RTGs due to non- availability of the first party site , in case any additional costs generated by the delay , the second party is entitled for the compensation .

البند الثاني عشر

تلتزم الشركة الطرف الثانى (المورد) بابلاغ الشركة الطرف الأول قبل شحن كل الاوناش بشهرين بالميعاد المتوقع لوصول السفينة الحاملة للاونش موقع الشركة بمحطتي الاسكندرية و الدخيلة و يلتزم الطرف الاول بالرد عليه بابلاغه فى موعد اقصاه اسبوع من تمام تجهيز الموقع لاستقبال الاوناش

- و فى حالة كون الموقع غير جاهز لاستقبال الاوناش يتم الاخطار بذلك و يحق للمورد تأخير الشحن المترتب على ذلك لحين قيام الشركة الطرف الاول باخطار المورد بان الموقع جاهز لاستقبال الاوناش دون تحميله بأى غرامة عن فترة تأخير الشحن بما لا يخل بمدة التوريد الاصلية المتفق عليها فى هذا العقد و فى حال الاخلال بذلك يحق للطرف المتضرر الرجوع بالتعويض الجابر لضرره.

ART. 13

1- Training at Factory:

The 2nd Party undertake to submit a training plan for the training of a group of (12) engineers & technicians for the period of 2 weeks at the factory premises in accordance to item 1-13-1 of the technical specifications – and to bear all the costs of the training, accommodation local transportation and tickets (economic class)

2- Training on site:

The 2nd Party undertake to submit a training plan for 2 weeks for the training of (5) Engineers, (8) crane operators, (5) Mechanics, (5) Electrician to the 1st Party from the date of preliminary receipt at site in accordance with Art 1-13-2 of the technical specifications.

البند الثالث عشر

1- التدريب بالمصنع : -

يلتزم الطرف الثاني بتقديم برنامج بتدريب مجموعة تتضمن عدد (12) مهندس، فني لمدة اسبوعين علي مجموعتين بمقر المصنع طبقا لما هو موضح بالبند 1-13-1 من المواصفات الفنية، وتكون جميع تكاليف التدريب والاقامة و التنقلات الداخلية وتذاكر السفر بالطائرة (درجة اقتصادية) على نفقة الطرف الثانى.

2- التدريب بالموقع :

يلتزم الطرف الثانى بتقديم خطة تدريب لمدة اسبوعين لتدريب عدد (5) مهندس و عدد (8) مشغل أوناش و عدد (5) ميكانيكى و عدد (5) كهربائى للطرف الاول من تاريخ الاستلام الابتدائى بالموقع طبقا لما هو موضح بالبند 1-13-2من المواصفات الفنية.

ART. 14

The 2nd Party guarantees to supply original newly manufactured cranes and components up to the newest design and with original components complying with the technical specifications, and free of manufacturing, materials, design defects and to work efficiently during the warranty period of 24 months starting from the date of acceptance and preliminary receipt and (48) months for PLC & DRIVES& gear boxes& trolley wheels& steel structure& spreader& cctv system , IPC for CMS , gantry transmission system without tyre starting from the date of acceptance and preliminary acceptance

البند الرابع عشر

يضمن الطرف الثانى ان يكون كل ونش و مستلزماته جديدة ومطابقة لأحدث تصميم وان تكون اصلية وان تكون جميع المعدات منتج اصلى وليست منتجة بترخيص و تتفق مع المستوى والمواصفات الفنية المتعاقد عليها طبقا لأحدث النظم التكنولوجية والعالمية وانه لن يظهر بها اى عيب يرجع الى خطأ فى التصميم او المواد او الصناعة وان تعمل بكفاءة وذلك خلال مدة الضمان ومقدارها اربعة وعشرون شهراللاوناش و كافة اجزائهم تبدأ من تاريخ قبولها و استلامها ابتدائيا و دون الاخلال بأحكام القانون المدنى المتعلقة بضمان العيوب الخفية و 48 شهرا للدرايف & plc & الجيربوكسات & عجل الترولى& والهيكل المعدني & والاسبريدر & منظومة الكاميرات و جهاز كمبيوتر منظومة الأعطال & منظومة نقل الحركة للجانترى كاملة من تاريخ قبول الاستلام الابتدائى

ART.15

The 2nd Party is committed to submit an offer for technical support of "software of PLC and speed drives" for a period of 3 years following the years guarantee of the Software in accordance to the Technical specifications.

البند الخامس عشر

يلتزم الطرف الثاني بتقديم عرض مساعدة فنية لجميع SOFTWARE OF PLC AND SPEED DRIVES لمدة ثلاث سنوات تالية لسنوات الضمان للـ SOFTWARE طبقاً لما هو وارد بالمواصفات الفنية.

ART. 16

The 2nd Party guarantees that the supplied (7) RTG cranes will work efficiently to fulfil the required tasks during the warranty period according to the following:

1. ***The 2nd Party is committed to repair or replace machines or parts of it on his expense which reveal to be defected due to manufacturing, during the warranty period in maximum (10) working days from notifying the 2nd Party or his commercial agent with fax.***
   In case the 2nd Party did not fulfil the required tasks in the allowed period, the 1st Party has the right to execute the required tasks on the expense and responsibility of the 2nd Party and the 1st Party deserves a compensation of USD 500 daily on each crane against operation stop. The compensation is calculated starting the day after the end of the

البند السادس عشر

يضمن الطرف الثانى ان الاوناش السبعة الموردة سوف تعمل بصورة فعالة ومناسبة لتحقيق الاهداف المحددة لها طوال فترة الضمان وعلى النحو التالى:-

1. *يلتزم الطرف الثانى بمجرد اخطاره أو اخطار وكيله كتابة بفاكس بان يقوم على نفقته و خلال عشرة ايام (عمل) بحد اقصى من اليوم التالى لاخطاره او وكيله التجارى بالفاكس باصلاح او استبدال المعدات او اى اجزاء منها قد يظهر بها خلل أو عيوب خلال فترة الضمان وفى حالة عدم قيام الطرف الثانى بذلك يكون للطرف الاول الحق فى تنفيذ الاعمال المطلوبة على نفقة ومسئولية الطرف الثانى ويستحق للطرف الاول فى حالة تأخر الاصلاح عن المدة المحددة (وقدرها عشرة يوما عمل) تعويض بواقع 500 دولار امريكى لا غير (خمسمائة دولار أمريكى لا غير) عن كل ونش يوميا عن الضرر الناتج عن التوقف عن العمل ويحتسب التعويض اعتبارا من اليوم التالى للمدة المحددة عالية وكل حالة على حدة وبحد اقصى عشرة فى المائة (10%) من قيمة كل ونش*

allowed period; each case is evaluated separately, with a maximum of 10 % from the value of the each crane

2. In case of replacement of any part of the crane during the warranty period due to manufacturing defect according to item 15 of this contract, a new warranty period of 24 months for the replaced part will be calculated from starting operation after replacement.

2. فى جميع الاحوال فى حالة استبدال اى جزء من اجزاء الونش اثناء فترة الضمان نتيجة عيب فى الصناعة طبقا للبند (الخامس عشر) من هذا العقد تحتسب فترة ضمان جديدة لهذا الجزء تبدأ من تاريخ التشغيل السليم بعد الاستبدال بواقع (24) شهرا .

3. The periods in which the cranes is out of operation due to manufacturing defects during the warranty period according to item 15 of this contract will be added to the basic warranty period.

3. تضاف فترات توقف الاوناش خلال فترة الضمان نتيجة الاعطال الناتجة عن عيوب فى الصناعة طبقا للبند الخامس عشر من هذا العقد الى فترة الضمان الاساسية .

ART. 17

البند السابع عشر

In case the Second Party does not fulfil its contractual obligations to supply and handover the contracted 2 cranes all or part of it during the period stated in this contract or during the additional allowed period, the First Party has the right without warning or any legal procedures to take one of the following actions after notifying the Second Party or his Agent by fax on the address mentioned in this contract:

اذا اخل الطرف الثانى بالتزامه بتوريد وتسليم الاوناش المتعاقد عليها كلها او بعضها فى الميعاد المحدد بالعقد او خلال المهلة الاضافية يجوز للطرف الاول دون تنبيه او إنذار او اتخاذ اية اجراءات قضائية ان يتخذ احد الاجرائين التاليين وذلك بعد اخطار الطرف الثانى بالخارج او على محله المختار بمصر بموطن وكيله التجارى بفاكس على عنوانه المبين فى العقد :

1. Buying the items which were not supplied by the Second Party on the 2nd Party account from other source, in a way granting the fast timing to reach the First Party, through a general tender or limited tender or public or limited bargaining or direct agreement for the same technical specification and conditions declared and contracted. The value of the price difference shall be deducted from the value of the guarantee or any due amounts at the First party side or any governmental authorities, in addition to any administration expenses that the 1st Party paid to take this action, beside what is due to the First Party from delay penalty or compensation. The Second

1. الشراء على حسابه سواء بطريق المناقصة العامة او المحدودة او الممارسة او بالاتفاق المباشر بذات الشروط والمواصفات الفنية المعلن عنها والمتعاقد عليها ويخصم من قيمة التامين المودع او اية مستحقات له لدى الطرف الاول او اية جهة حكومية اخرى قيمة الفروق الناتجة عن الزيادة فى الثمن مضافا اليها المصروفات التى يكون الطرف الاول قد تكبدها فى التنفيذ على حساب الطرف الثانى وما يستحق للطرف الاول من غرامات تأخير و تعويض. ولايحق للطرف الثانى المطالبة بفروق الاسعار اذا كان سعر الشراء على حسابه اقل من الثمن المتفق عليه فى هذا العقد

Party has no right to ask for a price difference in case 1st Party purchases on his account with a less price than what agreed upon in this contract.

2. Terminate contract and confiscate the performance guarantee equivalent to (10 %) Ten percent of the contract value without affecting what is due to the First Party from penalties of delay and compensation, all this without affecting the right of the 1st Party to take legal actions for rights which the 1st Party failed to recover.

2. اعتبار العقد مفسوخا من تلقاء نفسه و بقوة القانون و يصبح التأمين النهائى من حق الشركة (الطرف الأول) بما يوازى 10% (عشرة فى المائة) من قيمة العقد ودون الاخلال بما يستحقه الطرف الاول من غرامات تأخير وتعويض. وذلك كله ما عدم الاخلال بحق الطرف الاول فى الرجوع على الطرف الثانى قضاءا بما لم يتمكن من استيفائه من حقوق.

ART. 18

The 1st Party assures to provide the required mandates to finish the custom clearance procedures and facilitate the entrance of 2nd Party experts and engineers to the customs zone to execute this contract.

البند الثامن عشر

تتعهد الشركة الطرف الاول بتقديم التفويضات اللازمة للطرف الثانى لانهاء اجراءات التخليص الجمركي وكذا القيام بكافة التسهيلات اللازمة لدخول خبراء ومندوبى الشركة الطرف الثانى الدائرة الجمركية لتنفيذ مراحل هذا العقد .

ART. 19

The Second Party will submit a letter of guarantee issued by a first class Egyptian bank amounting 10 % of the contract value without any restrictions or conditions, to ensure fulfilling of the 2nd Party contractual obligations payable to 1st Party at first request, without any objection from the 2nd Party. The letter of guarantee has to be valid 30 days after the end of warranty period and final receipt of the contracted items

البند التاسع عشر

يتعهد الطرف الثانى بتقديم خطاب ضمان بنكى نهائي رقم صادر من بنك مصرى درجة اولى بقيمة 10% من قيمة العقد كتأمين نهائى لضمان تنفيذه لالتزاماته التعاقدية لهذا العقد خال من اية شروط او تحفظات ومقبولا للدفع لصالح الطرف الاول عند اول طلب سارى المفعول لمدة ثلاثين يوما بعد تاريخ انتهاء فترة الضمان واستلام الطرف الاول النهائى للبنود موضوع العقد

ART. 20

The 2nd party is committed to provide the technical assistance for after sale services – and to provide any improvement or amendment that the original manufacturer introduced to be able to use it when needed and to advise about any new technology to be introduced by the manufacture company.

البند العشرون

تلتزم الشركة الطرف الثانى بتقديم المعاونة الفنية المطلوبة لخدمة ما بعد البيع AFTER SALE SERVICES كما تلتزم بتقديم اى تحسينات اوتعديلات يقوم بها المصنع الاصلى فى حينه للاستفادة بها حين الحاجة و كذا موافاة الشركة بأى تكنولوجيا جديدة تقوم باضافتها الشركة المصنعة.

The Second Party is committed to send an expert to the company site of the first party to attend for three months after the date of approval and preliminary hand over of the cranes.

كما يلتزم الطرف الثانى بايفاد خبير الى موقع الشركة الطرف الاول يتواجد لمدة ثلاثة شهور من تاريخ القبول و الاستلام الابتدائى للاوناش.

ART. 21

البند الحادي والعشرون

The company (second party) after signing the agreement with the international inspection society to advise the company (first party) with all information of the responsible manager of the society and all technical responsibility endorsed to the international inspection society.

تلتزم الشركة (الطرف الثانى) بعد قيامها بابرام العقد مع هيئة التفتيش الدولية بموافاة الشركة الطرف الاول بالبيانات اللازمة بالمدير المسئول بهيئة التفتيش و كافة الالتزامات الفنية التى تم اسنادها لهيئة التفتيش.

ART. 22

البند الثاني والعشرون

The First Party is obliged to pay the percentage of commission, as agreed upon between the Second Party ( ) and his Commercial Agent ( ) amounting to ( ) from the contract value or its equivalent in EGP, the commission shall be deducted from the total value of the proforma invoice.

يلتزم الطرف الاول بالقيـــام بالوفاء بنسبة العمولة المتفق عليها بين الطرف الثانى ووكيلة التجارى .....بواقع ..... %
من قيمة التعاقد بما يوازيها بالعملة المصرية على ان تخصم هذه العمولة من القيمة الاجمالية للفاتورة.

The Second Party agree to deduct such amount and transfer to the account of the Commercial Agent in one of the banks of Arab Republic of Egypt, which is under the supervision of the Central Bank of Egypt with the actual exchange rate valid when transferring the amounts due.

كما يوافق الطرف الثانى على خصم هذه القيمة و ايداعها لحساب اصحابها فى احد البنوك العاملة فى جمهورية مصر العربية الخاضعة لاشراف البنك المصرى و بالعملة المتفق عليها.

The 1st Party is obliged to notify the 2nd Party by any payments to any person in relation to this contract according to item 14 and 15 of law no. 120 for the year 1982 and according to the Egyptian laws regulating the work of commercial agents in Egypt & items from 148-165 regarding commercial agents issued in commerce law no.17 for the year 1999.

كما يتعهد الطرف الاول باخطار الطرف الثانى عن اية مبالغ يدفعها لاى شخص بمناسبة هذا العقد بالتطبيق لاحكام المادتين (14) , (15) من القانون رقم (120) لسنة 1982 الصادر بتنظيم اعمال الوكالة التجارية وبعض اعمال الوساطة التجارية و احكام المواد من 148-165 فى شأن الوكالة التجارية الواردة بقانون التجارة الصادر بالقانون رقم 17 لسنة 1999.

ART. 23

البند الثالث والعشرون

The force majeure shall be applied in case of events occurred out of the desire and control of the Second Party, and cannot be predicated when writing this

يتم تطبيق شروط القوة القاهرة عند حدوث احداث خارجة عن ارادة الطرف الثانى و لا يمكن التنبؤ بها عند تحرير العقد و التى تعنى اعمال الشغب و الاضرابات المدنية و الحرب و الفياضانات و الزلازل و انهيار التربة او الكوارث

contract which means disturbance actions, civil strikes, wars, flood, earth quake, land fall, or similar natural catastrophes or the cases that oblige the second Party to breach the contract for reasons beyond his control. In all cases the Second Party is responsible to inform the 1st Party at the occurrence of the force majeure and prove it.

الطبيعية المشابهة على ان يقوم الطرف الثانى بالابلاغ عن وقوع القوة القاهرة فور حدوثها و فى كل الاحوال يكون الطرف الثانى مسئولا عن اثبات القوة القاهرة.

ART. 24

البند الرابع والعشرون

It is not allowed that the Second Party gives up this contract for a Third Party partially or completely or gives up accrued liabilities due to the 2nd Party partially or completely. The 2nd Party has the right to give up amounts due to the 2nd Party to a bank, in which the approval of the bank will be required, without affecting the contractual obligations of the 2nd Party to execute this contract or the rights of the 1st Party.

لا يجوز للطرف الثانى التنازل عن هذا العقد للغير جزئيا أو كليا أو عن المبالغ المستحقة له كلها أو بعضها و مع ذلك يجوز أن يتنازل عن تلك المبالغ لاحد البنوك و يكتفى فى هذه الحالة بتصديق البنك دون الاخلال بمسئولية الطرف الثانى عن تنفيذ العقد كما لا يخل قبول نزوله عن المبلغ المستحق له بما يكون للطرف الاول قبله من حقوق.

ART. 25

البند الخامس والعشرون

The 1st Party has the right to deduct from the amounts due to the 2nd Party against preliminary receipt remarks or warranty period or penalties from the value of the performance guarantee without any need to previous notice or legal procedures if the said remarks are not fixed in the allowed period stated in the contract.

تستادى الشركة (الطرف الاول) المقابل المستحق نظير وجود ملاحظات فى الاستلام الابتدائى أو فترة الضمان أو الغرامات التى قد توقع عن طريق خصمها من مستحقات الطرف الثانى أو من قيمة خطاب الضمان النهائى بدون الحاجة الى تنبيه أو انذار فى حالة عدم تلافى الملاحظات خلال المدة المنصوص عليها فى العقد.

ART. 26

البند السادس والعشرون

Courts of Alexandria are the only courts in the Arab Republic of Egypt that are concerned in case of any dispute that may arise due to this contract. The Egyptian law shall be the law implemented.

تختص محكمة الاسكندرية الاقتصادية بجمهورية مصر العربية دون غيرها بالفصل فى اى نزاع ينشأ بخصوص هذا العقد العقد و يكون القانون المصرى هو القانون الواجب التطبيق.

ART. 27

البند السابع و العشرون

The rules and regulations of the Executive Regulations and the rules of contract, purchasing stores regulation of the First Party are applicable and also Civil Law and Maritime and Commerce Law No. 17 for year 1990 and law No. 72 for year 2017 for Investment Incentives & Guarantees and its were this contract not stipulating.

تسرى احكام لائحة العقود و المشتريات و المخازن للشركة (الطرف الأول) وكذا احكام القانون المدنى واحكام قانون التجارة الصادر بالقانون رقم 17 لسنة 1990 واحكام قانون الاستثمار الصادر بالقانون رقم 72 لسنة 2017 و لائحته التنفيذية فيما لم يرد بشانه نص خاص في هذا العقد

ART. 28

The second party agreed that the address of the second party in Egypt is the mentioned address of his commercial agent in this contract and accordingly all correspondence by fax are considered legally delivered and to be followed by a register mail in accordance with Art. 164 of the Commerce Law No. 17 for year 1999 and results in its legal effect and consequences.

البند الثامن و العشرون

يقر الطرفا الثانى بان المحل المختار للطرف الثانى فى مصر هو موطن وكيله التجارى الثابت بصدر هذا العقد و التى تصح عليه قانونا جميع المراسلات بالفاكس و يعتد بتارخها و تعزز بواسطة خطابات موصى عليها بعلم الوصول لاحقة اعمالا للمادة 164 من قانون التجارة رقم 17 لسنة 1999 و تعتبر منتجه لاثارها القانونية.

ART. 29

This contract shall be made from 4 copies in Arabic language / English language; One copy in the hand of every party, and the fourth shall be used for administrative procedures.In case of any discrepancies between the languages, the Arabic version will be the prevailing.

البند التاسع و العشرون

تحرر هذا العقد من اربع نسخ باللغة العربية و اللغة الانجليزية و تسلم كل طرف نسخة و يحتفظ الطرف الاول بالنسخة الباقية للاجراءات الادارية و فى حالة الاختلاف فى التفسير يعتد بالنسخة العربية.

The First Part
Alexandria Container & Cargo Handling Co.

الطرف الاول
شركة الاسكندرية لتداول الحاويات و البضائع

General / Alaa Mohamed ibrahium ahmed
CEO

السيد / اللواء علاء محمد إبراهيم احمد
العضو المنتدب التنفيذي

The Second Part

الطرف الثانى

Mr.

السيد/

As per Power of Attorney No.

بموجب التفويض رقم

Dated

بتاريخ/

Misr Petroleum Company
General Administration for Technical Affairs
Quality Control Department

Egyptian standard specification for
Diesel engine fuel – gas oil

TEST	Specification	TESE METHOD
Relative Density @60/60°f	Report	ASTM 1298
Colour (ASTM)	4 Max	ASTM 1500
Flash Point (P.M.C.)	55 Min	ASTM 93
Kinematic Viscosity @ 40 °C (Cst)	1.6 - 7	ASTM 445
Viscosity R. d @ 40 °C (SEC.)	30 - 43	IP 70
Pour Point (°C)	(A) 3 Max (B) 9 Max (C) 15 Max	ASTM 97
Water & Sediment (% vol.)	0.1 Max	ASTM 2709
Ash Content (% wt)	0.01 Max	ASTM 482
• Conradson Carbon (% wt)	0.1 Max	ASTM 189
Total Sulphur (% wt)	1 Max	ASTM 2622
Inorganic Acids	Nil Max	IP 177
Cetane Index	46 Min	ASTM 4737
Gross calorific Value (MJ/kg)	44.3 Min	ASTM 4868
Distilled @ 350 °C (%vol.)	85 Min	ASTM 86
Copper St. corrosion (3 hr @100 °C)	(Div) 1 Max	ASTM 130

(A) Dec./Jan./Feb./Mars.
(B) April/May/Oct./Nov
(C) Jun/July/Aug/Sept.

• For 10% Residue after distillation