

**Government of India
Bhabha Atomic Research Centre
Post Irradiation Examination Division
Radiological Laboratories
Trombay, Mumbai 400 085**

Tel: 25594561

Ref: PIED/AB/2022/259

06.07.2022

Sub: Non- Comprehensive Annual Maintenance Contract of EOT cranes and material handling equipment at PIED, RLG, BARC

Dear Sir or madam,

Please send us your lowest quotation for Non- Comprehensive Annual Maintenance Contract of following EOT cranes and material handling equipment at PIED, RLG, BARC for one year. Given below the specification of crane, scope of work and other terms and conditions.

Specification of cranes :

40T EOT Crane Qty. 2Nos.

Designation	Indoor Installation
Capacity	40 T / 5 T E.O.T. CRANEANE : ONE Number
Type of Crane Girder	Double Girder Box Type.
Class of Crane	II (As per IS 807 & IS 3177)
Main Hoist Capacity	40 Tons
Aux. Hoist Capacity	5 Tons
Main Hoist Lift above floor level (H1)	11,000 mm
Aux. Hoist Lift above/below floor level	11,000 mm
Main Hoist drop below floor level (H2)	1,000 mm
Aux. Hoist drop below floor level	1,000 mm
Crane Span (S)	11,000 mm
Long Travel	42,000 mm
Cross Travel	8,100 mm
Electro Hydraulic Thrustor Brakes have been provided for all the motions. LT, CT and main/aux. hoisting are provided with micro motion.	

2T EOT Crane(Low active lab) Qty. 1No.

Designation	Indoor Installation
Capacity	2 T E.O.T. CRANEANE
Type of Crane Girder	Double Girder
Class of Crane	II (As per IS 807 & IS 3177)
Hoist Capacity	2 MT
Hoist Lift above floor level	4000 mm
Crane Span	5000 mm
Long Travel	42,000 mm
Cross Travel	4,000 mm
Electro Hydraulic Thrustor Brakes have been provided for all the motions LT, CT and hoisting motion are provided with micro motion.	

2T EOT Crane (Work shop) Qty. 1No.

Designation	Indoor Installation
Capacity	2 T E.O.T. CRANEANE
Type of Crane Girder	Double Girder
Class of Crane	II (As per IS 807 & IS 3177)
Hoist Capacity	2 MT
Hoist Lift above floor level	4000 mm
Crane Span	5000 mm
Long Travel	42,000 mm
Cross Travel	4,000 mm
Electro Hydraulic Thrustor Brakes have been provided for all the motions LT, CT and hoisting are provided with micro motion.	

2T EOT Crane (Vehicle air lock) Qty. 1No.

Designation	Indoor Installation
Capacity	2 T E.O.T. CRANE
Type of Crane Girder	Single Girder
Class of Crane	II (As per IS 807 & IS 3177)
Hoist Capacity	2 MT
Hoist Lift above floor level	4000 mm
Crane Span	Mono rail trolley
Long Travel	Fixed
Cross Travel	4,000 mm
Electro Magnetic Disc Brakes have been provided for hoisting and cross travel. LT, CT and hoisting are provided with micro motion.	

Scope of work :

Servicing for the above cranes shall be done as per following :

1. Long Travel (L T)

- 1.1 Check all the fasteners of gear box/motor etc
- 1.2 Check the oil level in the reduction gearbox & make up
- 1.3 Lubricate the wheel gear pinion
- 1.4 Lubricate the wheel bearing
- 1.5 Check the Brake liners
- 1.6 Check & adjust the setting of the brake Assembly
- 1.7 Check the coupling bolts, bushes, spiders etc
- 1.8 Lubricate the rear wheel bearing
- 1.9 Check & Lubricate the motor bearings
- 1.10 Check all the fasteners of gearbox, motor etc
- 1.11 Check & Confirm that LT Train wheels are not going skew
- 1.12 Lubricate the LT main line shaft bearing – Right
- 1.13 Lubricate the LT main line shaft bearing - Left
- 1.14 Lubricate the LT brake supporting system
- 1.15 Check the brake liners
- 1.16 Check & adjust the setting of the brake assembly
- 1.17 Lubricate the LT line shaft pinion
- 1.18 Lubricate the LT line shaft gear ring
- 1.19 Check/Replace the LT shaft flexible coupling pins, Rubber bushes, spiders etc.
- 1.20 Check/ Tighten L T shaft bearing housing fasteners
- 1.21 Check/Lubricate motor bearings
- 1.22 Check the buffers at either ends of LT are working properly

2. Cross Level (C T)

- 2.1 Check all the fasteners of gearbox, Motor etc
- 2.2 Check. /Replace the oil of reduction gearbox
- 2.3 Lubricate the crane wheel bearing front - right
- 2.4 Lubricate the crane wheel-bearing front - Left
- 2.5 Lubricate the crane wheel bearing rear - right
- 2.6 Lubricate the crane wheel bearing rear - left
- 2.7 Check/replace the coupling, rubber bushes etc
- 2.8 Check / adjust the setting of the brake assembly
- 2.9 Check the brake liners/clean/replace
- 2.10 Check/ Adjust the clearance between wheel and rail
- 2.11 Check the pendant movement rollers
- 2.12 Cleaning of roller track
- 2.13 Greasing of rollers

3. Main and Aux. Hoist Drums

- 3.1 Check/Replace the oil of the hoist gearbox
- 3.2 Lubricate the Hoist drum shaft (DE) bearing
- 3.3 Lubricate the hoist drum shaft (NDE) bearing
- 3.4 Lubricate the bottom sheave bearing - Right
- 3.5 Lubricate the bottom sheave bearing - Left
- 3.6 Check/Lubricate the side wheel bearing
- 3.7 Lubricate the wire rope
- 3.8 Check the settings and adjust the thruster brakes
- 3.9 Check the hoist rope for broken strands
- 3.10 Check the tightness of rope clamp bolts
- 3.11 Check/Tighten all fasteners of hoisting system
- 3.12 Check/ replace the coupling bolts and bushes
- 3.13 Check/Lubricate hook thrust bearing
- 3.14 Check the brake liners
- 3.15 Check/ adjust the settlings of the brake
- 3.16 Check/ makeup the thruster oil level

4. Electrical

- 4.1 Check all the power control cables are in good condition
- 4.2 Check/Tighten all terminals of power & control wire in control panel, resistance box etc.
- 4.3 Check/Tighten all terminals of LT main motor
- 4.4 Check/Tighten all terminals of LT micro motor
- 4.5 Check/Tighten all terminals of CT main motor
- 4.6 Check /Tighten all terminals of CT micro motor
- 4.7 Check/Tighten all terminals of main Hoist main motor
- 4.8 Check/Tighten all terminals of main Hoist micro motor
- 4.9 Check/Tighten all terminals of Aux. Hoist main motor
- 4.10 Check/Tighten all terminals of Aux. Hoist main motor
- 4.11 Check/Tighten all terminals of LT brake system, CT brake system and Hoist brake system
- 4.12 Check/Tighten terminals of LT and CT limit switches
- 4.13 Check/Tighten terminals of hoists limit switches
- 4.14 Check/Tighten the earthen fasteners - 1st earthen
- 4.15 Check /Tighten the earthen fasteners – 2nd earthen
- 4.16 Check the hoist main/ micro motors healthiness, meggering of motor insulation
- 4.17 Check / adjust all the overload range as per motor
- 4.18 Check / replace all the indication lamps
- 4.19 Check the power on indication lamps are functioning properly
- 4.20 Check the interlock between hoist main and micro motor
- 4.21 Check the inter lock between forward & reverse motion of LT
- 4.22 Check the interlock between forward & reverse motion of CT .
- 4.23 Check the interlock between forward & reverse motion between hoist up & down
- 4.24 Check the emergency off switches are working properly
- 4.25 Check the crane control from the pendant
- 4.26 Check / replace the pendant push buttons

Servicing of LT rail and shrouded DSL system of following cranes :

40T/5T EOT Crane – 2Nos.

2T EOT Crane – 3Nos.

1. LT rails of both sides of crane shall be inspected annually
2. All the rail clamps shall be tightened.
3. Checking the LT girder and tightening the girder bolts.
4. Checking and cleaning of DSL system
5. Checking the DSL contacts.
6. Replacement of worn – out contacts
7. Tightening the hanger bolts of brackets of DSL system.

Servicing of chain pulley blocks : Qty. 6Nos.

1. Cleaning of the chains.
2. Greasing the load chain.
3. Opening the cover and checking the wear of load wheel and planetary gears & pinion.
4. Greasing the load wheel, gears and pinion.
5. Checking the disc brake liner.
6. Adjusting the spring compression.
7. Re-assembly of pulley block and testing the smooth operation of pulley blocks.

Periodicity of maintenance:

Periodicity of servicing / maintenance shall be as per following :

1. 40T/5T EOT Crane – 4 service in a year and any number of breakdown calls.
2. 2T EOT Crane – 4 service in a year and any number of breakdown calls
3. Chain pulley blocks of 0.5MT to 3MT – Once in a year and any number of breakdown calls
4. Servicing of LT rail and shrouded DSL system - 4 service in a year and any number of breakdown calls.

Annual Inspection and load test

Annual inspection and load test of following shall be carried out once in a year as per attached Annexure- I.

1. 40T/5T EOT Crane – 2Nos.
2. 2T EOT Crane – 3Nos.
3. Chain pulley blocks of 0.5MT to 3MT – 6Nos.

We will arrange the load for testing the crane. All other arrangements for annual inspection, load test and for preventive maintenance is in the scope of work.

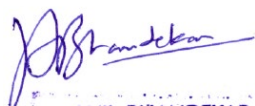
Important Note:

1. All your electrical appliances shall have a performance certificate without which they cannot be connected to the electrical supply points provided by the department. Hence, you are requested to obtain the certificate for the appliances before bringing them into BARC.
2. Since the scope of work involves site work, you shall obtain clearance from police and CID for all staff who may be deputed for site work at PIED, RLG, BARC. This is mandatory and the responsibility of obtaining such a clearance is within your scope of work.

Terms and Conditions :

1. The service contract shall remain in force for a period of one year from receiving the firm order from us.
2. Service charges shall be firm during the currency of the contract.
3. Emergency/Breakdown call from the user Department should be attended immediately but not later than 24 hours at no extra cost.
4. The cost of spare parts replaced during the currency of the contract will be paid extra at actual, however the parts may be replaced with approval of user, Department regarding the reasonableness of cost and necessity of replacement, request a list of common spares needed for proper working may please be intimated to user Department to enable him to stock the same, if possible.
5. The sealed quotations shall reach the office of the **Head, PIED, NHF, RLG, Mumbai – 85 on or before 21.07.2022 by Speed Post of Indian postal services.**
6. Please address your offer to: **Shri Anil Bhandekar, SO/G, Post Irradiation Examination Division, RLG, BARC, Trombay, Mumbai-400 085.**
7. The quotations are to be sent in a sealed envelope with the following information marked on top of the envelope: “Annual Maintenance Contract of 40/5 MT EOT crane”
8. Offers sent by telegram, telex, fax or e-mail will not be considered.
9. Quotation should be in the printed letter head /quotation format which should consist of Sales Tax Registration Number, PAN Number of the firm, Service Registration Number, etc.
10. Computer generated quotation form will not be accepted.
11. All taxes should be mentioned clearly.
12. Income tax @ 2% of the value of the work order, surcharge and education cess as applicable will be deducted at source before making the payment.

Yours sincerely,



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