

Section-II

Technical Specifications

1.Scope:

This section provides for the manufacture, testing before dispatch and supply FOR destination any where in M.P. ,of 17 T Rough Terrain hydraulic Mobiles Cranes for MPPKVCL Stores Indore. The Technical Specifications contained in this section are for the guidance of tenderer. Any deviation from purchaser's specification will be consider on their .Such relatives merits of their performance.,efficiency,durability and over all economy consequent with the purchaser's requirement here in after stipulated Such deviation shall be . clearly Entered by the tenderer in Annexure-IV attached to this tender.

2.Rough Terrain hydraulic mobile Crane

The Mobile Cranes intended for handling of the substation equipments and all related lines material in transmission stores. It will be a one man revolving cab, steel structure, sufficient size safety glass window ,adjustable driver's seat ,top glass lifting type.The crane have maximum lifting capacity not less than 18 tonnes.

The crane have chassis is a torsion resistant and rigid steel structure of side member construction and also rear emergency exit window,wipers,ventailating fan,cab light, instrument panel with RPM meter,Fuel gauge, Water temperature gauge, Hydraulic Pressure Gauge,Air Presuure Gauge, Speed selector, Crane Controls, safe Load system ,Crane leveling gauge

Technical Specification for 17 T Moveable Boom Self Propelled Rough Terrain Hydraulic Mobile Crane

Type: Self Propelled Rough Terrain Hydraulic Mobile Crane

LIFTING CAPACITIES:

- **Lifting Capacity (On outriggers):** Minimum 15 -16MT at 3m radius on outriggers fully extended.
- **Lifting Capacity (On outriggers at 1m Clear outreach)** Minimum 12 MT at with a hook height of approximately 15m
- **Lifting Capacity (Free on Wheels Mobile) :** Minimum 5MT at 5 m radius

Boom	Fully hydraulically powered telescopic boom extendable upto 15 m
Height of lift	15 m
Engine HP	Suitable water cooled diesel engine
Axles	Front wheel suspension, rear axle rigid
Service brakes	Foot operated, hydraulic assisted
Parking brakes	Hand operated, hydraulic assisted, fail safe on rear wheels
Transmission	Torque converter coupled to full power shift transmission
Slew	360 deg unlimited upto 3.0 RPM by a hydraulic motor
Chassis	All welded fabrication consisting of rectangular hollow side beams
Outriggers	4 nos. hydraulic independently operated, outrigger cylinders not to be exposed to swinging loads. Should have minimum set up area not more than 5 m to operate in narrow congested areas.
Hydraulic equipment	Main hydraulic pump for all crane operations and separate pump for steering preferable
Steering	Hydrostatic with 4 modes – front 2 wheel & rear 2 wheel, 4 wheel and crab steer
Drive	4x4 wheel drive, 4 wheel steer for minimum turning circle dia not more than 9 M
Hoisting	With hydraulic motor, hoisting speeds of 50 m/min and rope dia 16 mtrs
Speed	30 kmph
Gradeability	25% unladen minimum
Turning circle dia	4 wheel steer not more than 9.0 m
Safety devices	Hose failure protection, over hoist protection, An audible and visible warning device with indicator giving the load and the max. safe working load alongwith audible and visual warning on overload and circuit cutout. Slew locking during travel

1. Standards and tests :

The equipments offered would conform to relevant Indian Standard (Lifting capacity as per IS-4573 in Tonnes) If the supplier has already got his product tested in any Govt. Test House of Independent Agency, a copy of the test report shall be submitted otherwise it will be presumed that no such tests have been performed on the equipment offered.

2. Catalogue and Technical Literature and drawings :

Detailed catalogue, technical literature and drawing explaining all the features of the equipments shall be submitted in duplicate.

3. Minimum guarantee period :

The tendered shall indicate the minimum guarantee period for Hydraulic cranes offered by him, which shall in no case be less than 12 months.

4. Spare parts :

- a) Mandatory : List of mandatory spare parts to be supplied alongwith mobile crane is to be furnished. Cost of these spares will be deemed to have been included in the ex works price of the mobile crane.
- b) Spares for three years : The list of spares required for next three years (excluding guarantee period of one year) may please be furnished. Cost of these spares needs to be provided in Schedule II . No. varitinin

5. Training :

The adequate training to the Drivers of MPPTCL to operate Hydraulic crane to be imparted at Jabalpur. The cost of above training would be borne by the firm.

6. Annual Maintenance Contract (AMC) :

The order placing authority may opt AMC after the warrantee period is over. Therefore, the rates should quoted for AMC for next one year in schedule II.

Spares required for next year of operation (after the warranty period is over) may be indicated clearly. It may please be confirmed that the AMC would commence only after the guarantee period of one year is over.

7. Marking :

Each hydraulic crane shall have the following information engraved on a plate to be fitted at suitable place in driver's cabin (at visible place) along with essential data :

- a) Maker's name and address or trademark.
- b) Contract / specification no.
- c) Name and address of the consignee
- d) Type and capacity of crane
- e) Gross weight of the hydraulic cranc

8. Parking and forwarding :

The supplier shall be responsible for the hydraulic crane being sufficiently and properly packed at his expenses for transport by road so as to ensure then being free from loss / damage due to handling and transport to our destination.

9. Climatic conditions and altitudes :

The equipment and materials offered shall be suitable for use in tropical climate and for site locations upto in altitude of 1000m (3000 ft.) above mean sea level, maximum ambient temperature of 50⁰C (122⁰F) and humidity approaching saturation for extended periods during the monsoon months when the dry bulb temperature may be of the order of 30⁰ C to 35⁰ C (86⁰ F to 95⁰)

10. Material workmanship :

All the material used shall be of BEST class and quality most suitable for the conditions of operation under all the climatic conditions (Summer, Rainy, Winter). The workanship shall be of best grade and the entire manufacturing with most modern practices.

11. Testing

14.1.1 Test details mentioned below are to be carried out on Hydraulic Crane.

14.2.1 Acceptance Test

To be carried out of the supplier in presence of Purchasers representative. Expenditure to carry out these acceptance tests will be on suppliers account.

a) Visual examination

i) Visual and dimensional check on Hydraulic Crane

b) Measurement of dimensions of : As per IS 4573 (with latest amendment) Hydraulic Crane.

12. Test Reports

15.01 Copies of test reports for the above tests shall be furnished in at least two (2) copies for necessary approval before dispatch of material.

15.02 The reports for the acceptance tests shall clearly state the dimensional check, lifting capacity of crane, horizontal reach, Articulation. The reports shall clearly indicate the minimum values specified for each test and minimum / maximum value of tests witnessed by company's representatives to facilities checking of the test reports.

16. ELIGIBILITY CRITERIA

The bidder must fulfill the following minimum eligibility criteria:

The bidder should have experience in design & manufacture of Pick N Carry Tyre Mounted Mobile Crane with telescopic boom with desired capacity or above

not less than 7 years

The bidder shall have manufactured & supplied at least ten nos. of minimum desired capacity in last five years to a reputed electricity board/Govt. / PSU organization in the country (India) and should be in operation for a minimum period of four (4) years as on date of tender. Supply orders and commissioning reports / performance reports shall be submitted by the bidder in support of qualifying requirement, otherwise the offer shall be summarily rejected.