



**ONGC TRIPURA POWER COMPANY LIMITED**

**TECHNICAL SPECIFICATION**

**FOR**

**SELF – PROPELLED DIESEL OPERATED ARTICULATED  
BOOM LIFT (MAN LIFTER)**

**SUPPLY & COMMISSIONING**

**SELF – PROPELLED DIESEL OPERATED ARTICULATED  
BOOM LIFT (MAN LIFTER)**

**AT**

**PALATANA POWER PLANT**

(This document is meant for the exclusive purpose of bidding against this specification and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued).

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**1.0 SCOPE:**

The scope of supply and commissioning of SELF-PROPELLED DIESEL OPERATED ARTICULATED BOOM LIFT (boom length 18 m) shall include design, manufacture, testing, supply, erection (if required) and commissioning. The intended equipment shall be suitable for use in rough terrain, graveled road and switchyard. The scope intends to cover the following:

- 1.1 Complete manufacturing including shop testing at OEM works.
- 1.2 Providing O & M manuals as per specified format etc. for owner's /purchaser's review, approval and records.
- 1.3 Packing and transportation from the manufacturer's works to the site including customs clearance/port clearance, if required.
- 1.4 Supervision of safe unloading & storage at site.
- 1.5 Fabrication, pre-assembly, if any, erection testing and putting into satisfactory operation of the equipment including successful completion of trial operation.
- 1.6 Performance and Guarantee tests after successful completion of trial operation at site.

**2.0 GENERAL REQUIREMENTS:**

The following requirements shall be met by the equipment supplied by the Vendor:

- 2.1 The equipment shall be designed and constructed for safe, proper and continuous operation under all conditions described or implied in the Specification, without undue strain, vibration, corrosion or other operating difficulties.
- 2.2 Parts shall be designed and supported to permit free expansion and contraction without causing leakage, distortion or excessive strain on the equipment.
- 2.3 Parts subject to wear, corrosion or other deterioration or requiring adjustment, inspection or repair shall be readily accessible and capable of easy removal for repair or replacement.

### 3.0 SCOPE OF SUPPLY & SERVICES

The Scope of supply includes design, engineering, manufacturing, testing, inspection, packing, forwarding, transportation, unloading & storage at site, assembly of parts at site (if required), other services required for successful commissioning, demonstration (at site) of the **SELF – PROPELLED DIESEL OPERATED ARTICULATED BOOM LIFT (MAN LIFTER)** (boom length shall be 18 meter) along with necessary accessories in full compliance to the technical specification.

All equipment provided by the manufacturer shall be new, free from defects and of same type standard and quality set forth in the specifications. The scope of equipment to be furnished and services to be provided under the contract are outlined hereinafter and the same is to be read in conjunction with the provisions contained in other clauses. The scope of work under the contract shall be deemed to include all such items, which although are not specifically mentioned in the bid documents and / or in Bidder's proposal, but are required to make the equipment / system complete for its safe, efficient, reliable and trouble free operation. NO EXTRA COST implication to OTPC shall be considered on account of supply & installation of these unaccounted items.

Miscellaneous items like hardware, fixtures etc. shall be deemed to be included under the relevant BOQ items and bidders shall consider the same while quoting for BOQ items.

#### 3.1 Maintenance Tools and Tackles

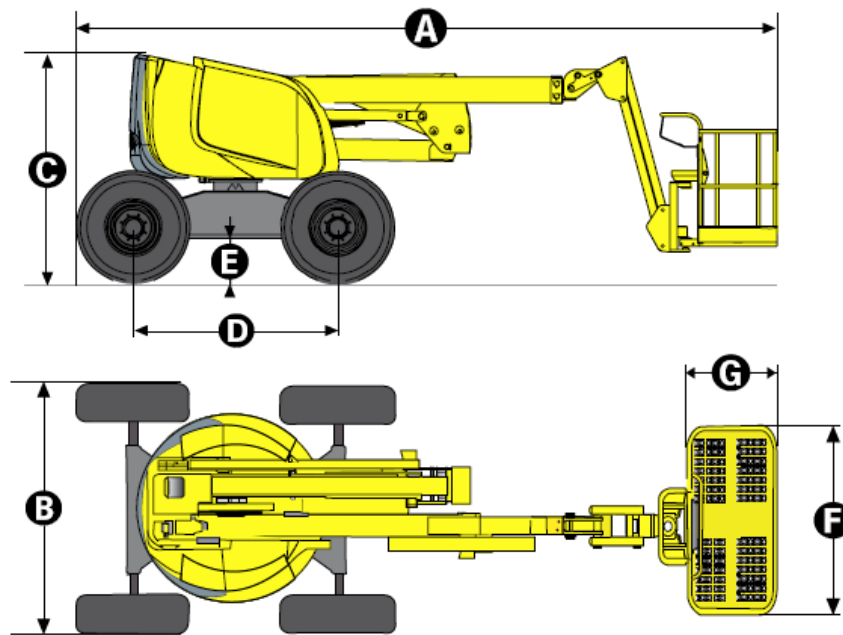
A complete unused new set of special purpose tools, tackles and accessories along with detailed instructions and maintenance manual shall be supplied. Each tool and wrench shall be stamped so as to be identified easy for its use. The tools shall be supplied in required toolbox and with a copy of instruction manual. The items supplied shall be of the best quality and specially protected against rusting.

**4.0 TECHNICAL SPECIFICATIONS:**

The Diesel Engine Powered Articulating Boom lift (18 mtr boom length) should comply the following requirement:

- i. **PURPOSE:** Man Lift (People & Material Lifting Equipment).
- ii. **TYPE:** Rough Terrain, Gravelled Switchyard.
- iii. **LIFT MECHANISM:** Articulating Boom with Platform.
- iv. **OPERATION:** Tyre Mounted, Diesel Operated Self Propelled, Platform Operation.

The Diesel Engine Powered Articulating Boom lift (18 mtr boom length) should meet the following specifications:



**4.1 Measurements:**

S. No	Description	Specification
1	Length (A)	7.5 (+/-0.5) mtr
2	Width (B)	2.5(+/- 0.25)mtr
3	Height – Stowed(C)	2.5(+/- 0.25)mtr
4	Wheelbase (D)	2.0 (+/- 0.5) mtr
5	Ground Clearance (E)	40 (+/-10%) cms
6	Platform Width (F)	2.0( +/- 10%)mtr

7	Platform Length (G)	1.0(+/-10%) mtr
8	Working Height (Max)*	18 (+/- 1) mtr
9	Platform Height (Max)	16(+/-1) mtr
10	Horizontal Reach (Max)**	11(+/-1) mtr
11	Up & Over Clearance	7 (+/-1) mtr

\* The metric equivalent of working height adds 2 mtr to platform height

\*\* The Horizontal Reach (Max) shall be available up to 9 (+/-0.5) mtr of the platform height.

#### 4.2 Productivity:

S.No.	Description	Specification
1	Lift Capacity	240(+/-10%) KG
2	Transport Length	5(+/-5%) mtr
3	Transport Height	2.5(+/-5%) mtr
4	Vertical Jib rotation (min)	130 (+65/- 65) deg
5	Platform rotation (min)	160 (+80/- 80) deg
6	Turntable rotation (min)	350 deg
7	Turntable Swing	0
8	Tilt	5 deg
9	Turning radius outside (max)	4.5 mtr
10	Drive speed	0.8- 5.0 KM/HR
11	Tyre	Foam Filled
12	Power Source	Diesel Engine
13	Drive	Four Wheel drive
14	Steering	Four Wheel steering
15	Platform	Self-levelling
16	Movement Capabilities	Plan surface, Rough Terrain, Gravelled Switchyard
17	Operation /Control	Platform mounted Console Machine
18	Max. Wind speed for stable operation	40 Km/hr
19	Articulated Boom	Double Riser (Min)

**4.3 Power:**

S. No.	Description	Specification
1	Power Source	50(+/-10%) HP
2	Auxiliary power unit/ Back up supply	100 AH BATTERY, 12 V/24V/48V DC
3	Battery Charger	10 Amp
4	Additional power to platform	240 / 415 V. 4 C x 10 sqmm Cu cable to be provided upto platform.
5	Led Focus Light to be provided to assist at night.	Power to be supplied from battery source / Diesel Engine

**4.4 Equipment Standard Compliance:**

S.No.	Specification	Requirement
1	ANSI A 92.5	Mandatory
2	CSA B354.4	Mandatory
3	CE Compliance	Mandatory
4	AS 1418.10	Mandatory

**4.5 Accessories:**

S.No.	Description	Requirement
1	Hourmeter & Horn	To be provided
2	Auxiliary power in platform to descend in emergency	To be provided
3	5 deg tilt alarm	To be provided
4	Travel Alarm and lock out mechanism/ Function cut –off	To be provided
5	Load Indicator	To be provided
6	Over load alarm and lock out mechanism/ Function cut -off	To be provided
7	Slewing Block pin	To be provided
8	Load limiter in the Platform	To be provided
9	Hydraulic system capacity	50 ltrs
10	Turntable Movement	Continuous
11	Outreach Control	Continuous
12	Platform gate	Inward self-closing swing gate
13	Ground Control Console on Turn table	To be provided
14	Status Light Panel at Platform control console	To provide indicator light for system distress and healthiness.
15	LED Focus Light	To be provided in platform
16	Head Light	To be provided in both front and rear.

**4.6 Special Condition:**

- (a) A qualified service personal/ representative will be deployed during commissioning & demonstration of start-up operation and provide technical know-how of the machine supplied.
- (b) Vendor has to provide the training to the staff of OTPC for the operation of the machine.
- (c) The machine supplied should be warranted for trouble free operation of one year from the date of commissioning at site.
- (d) The machine supplied should meet applicable OSHA Regulations in 29 CFR 1910.67, 29 CFR 1926.453, ANSI A 92.5-2006 and CSA standard B 354.4-02 as originally manufactured for intended application.
- (e) In case of the breakdown of the machine during the warranty period, party has to mobilize the man and material to attend the defect within 48 hrs.
- (f) Vendor has to provide the PBG of 10% of the PO price, which shall be released after one year upon the satisfactory performance of the machine during the warranty period.
- (g) Vendor has to provide the standard list of the spares along with rates which are to be kept for maintenance of the machine for the period of two years.
- (h) Vendor should have the facility of after sales services in India.

**5.0 BILL OF MATERIAL:**

S.No.	Item	Qty	Remarks
1.	Diesel operated Self-propelled articulated boom type man lift (boom length shall be 18 meters) along with necessary accessories as per technical specification.	01	

**Notes:**

- i) Item supplied shall be new & should not have been used earlier.
- ii) Supplier should specify the Make & Model & accessories/complete scope of supply offered along with Technical Bid.
- iii) Supplier is required to provide all the Technical details/ Catalogue/ Datasheet of the offered equipment along with technical bid.
- iv) Make/Model offered is subject to OTPC approval. OTPC approval shall be considered as final.
- v) Supplier is required to give an undertaking "to address issue of warranty /after sales services of the equipment from OEM".
- vi) Bidder shall submit the detailed list of mandatory spares recommended by OEM along with the bid for our information only.



- vii) Following points should be taken care while quoting for the above mentioned items. Prices against the below points shall deemed to be included in the main equipment.
- a) Bidder should comply all requirements given in this specification while quoting for above items.
  - b) The Vendor shall supply one complete set of tools, tackles and other minor items required for maintenance / upkeep and overhaul of the equipment.
  - c) It will be the responsibility of the Vendor to obtain statutory clearance & license for operation, if any, prior to supplies as required.
  - d) Any spares required for commissioning purpose shall be supplied by the vendor & the price of the same shall be included in the main equipment price.

#### **6.0 GENERAL TECHNICAL REQUIREMENTS:**

- i) The equipment offered shall be from standard range of manufacturer and shall be of proven durability.
- ii) All material/parts used shall be free from flaws and defects and shall confirm to the relevant Indian / international standards and good engineering practices.
- iii) The design of the equipment shall be based on the technical specifications.
- iv) The equipment shall comply with the Indian / internationally accepted standards or any other standards of the country of origin.
- v) The equipment shall meet the Indian and international safety standards as specified in technical specification.

#### **7.0 SPECIFIC TECHNICAL REQUIREMENTS:**

Diesel operated (with battery start up) Self-propelled articulated boom type man lift 18 m along with necessary accessories with following features / functions:

- i) The man lift shall be from MTANDT/JLG/GEMINI/BOYD SMITH or equivalent make, suitable to access for maintaining the highest installed equipment in Switchyard.
- ii) Boom length shall be 18 meters.
- iii) Equipment should be suitable for irregular and bumpy road/terrain.
- iv) Provision of Emergency Lowering of Platform should be available.
- v) Equipment should have sufficient Fuel tank capacity for continuous operation of around 8 hours.
- vi) Equipment shall meet the latest emission norms as per latest International/equivalent Indian standards.

Bidder need to furnish duly filled Technical particular sheet enclosed with technical specification along with technical bid.

**8.0 QUALITY & INSPECTION:**

The inspection of Lifting equipment shall be done as per technical specification/ approved technical data sheet/GA and customer approved quality plan before dispatch clearance.

Vendor shall ensure to produce all test certificates of equipment in line with technical requirement to satisfy customer.

**9.0 MAINTENANCE CRITERIA:**

The bidder shall also submit the schedule regarding the type of maintenance/ testing to be carried out periodically on the man lift to ensure their healthiness. A check list for condition monitoring of equipment shall also be furnished by the bidders.

**10.0 TECHNICAL PARAMETER SHEET:**

The bidder must fill the Technical Parameter Sheet given below for the ease of evaluation along with Bid.

**(a) Specification Sheet:**

S.No.	Description	Specification
	<b>Model Offered</b>	
1	Length (A)	
2	Width (B)	
3	Height –Stowed(C)	
4	Wheelbase ( D)	
5	Ground Clearance (E)	
6	Platform Width (F)	
7	Platform Length (G)	
8	Working Height (Max)*	
9	Platform Height (Max)	
10	Horizontal Reach (Max)**	
11	Up & Over Clearance	
12	Lift Capacity	
13	Transport Length	
14	Transport Height	
15	Vertical Jib rotation (min)	
16	Platform rotation (min)	
17	Turntable rotation (min)	

18	Turntable Swing	
19	Tilt	
20	Turning radius outside (max)	
21	Drive speed	
22	Tyre	
23	Power Source	
24	Drive	
25	Steering	
26	Platform	
27	Movement Capabilities	
28	Operation /Control	
29	Max. Wind speed for stable operation	
30	Articulated boom Double riser.	
31	Power Source	
32	Auxiliary power unit/ Back up supply	
33	Battery Charger	
34	Additional power to platform	
35	Led Focus Light to be provided to assist at night.	
36	Head Light to be provided in both front and rear.	

**(b) Equipment Standard Compliance**

S.No.	Specification	YES / NO
1	ANSI A 92.5	
2	CSA B354.4	
3	CE Compliance	
4	AS 1418.10	

**(c) Accessories:**

S.No.	Description	YES / NO
1	Hourmeter & Horn	
2	Auxiliary power in platform to descend in emergency	
3	5 deg tilt alarm	
4	Travel Alarm and lock out mechanism/ Function cut-off	
5	Load Indicator	
6	Over load alarm and lock out mechanism/ Function	

	cut-off	
7	Slewing Block pin	
8	Load limiter in the Platform	
9	Hydraulic system capacity	
10	Turntable Movement	
11	Outreach Control	
12	Platform gate	
13	Ground Control Console on Turn table	
14	Status Light Panel at Platform control console	
15	LED Focus Light	

**11.0 WARRANTY REQUIREMENT:**

Vendor shall be liable for any defects in the equipment supplied for a period of 12 months after the date of commissioning at site. Vendor must make corrective action and rectify any such defects arising during the warranty period.