State of Illinois

Department of Transportation

Bureau of Business Services

**Specifications and Questionnaire for Self-Propelled, Telescopic Boom Lift on Tracks**

January 2020

This specification and questionnaire covers a self-propelled, diesel powered, telescopic aerial device to be used by the Department of Transportation Division of Highways Bridge Maintenance and Repair personnel aerial inspections, maintenance and repairs. In an effort to improve parts and service availability and increase tool life, the Department of Transportation is specifying units and accessories as outlined below.

Each bidder shall submit with their bid **two sets** of descriptive literature and specifications describing **all** the **equipment** and **options** proposed. This information shall be clearly marked to indicate the make, model, and accessories proposed to be furnished. If this information is not furnished, the bid may not be considered.

Bidders quoting on specified equipment must submit with their bid written proof of the following:

* The manufacturer of the equipment proposed has been actively involved in the manufacture of the equipment called for in the **bid** for a period of not less than 5 years.
* Parts and service for the equipment proposed are readily available within the State of Illinois.

It is the responsibility of each bidder to complete and return this questionnaire with the bid.

**Bidders are advised to carefully read these specifications as changes have been made since the last solicitation issue.**

**Unless otherwise specified, the proposed equipment shall be complete in all parts and ready for immediate use upon delivery.**

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| **Proposed with this Bid:** | | | | | | | | |
| Make: | |  | | | | | |
| Model: | |  | | | | | |
| Manufactured By: | | | | | |  | | |
| Bidder: | | | |  | | | | |
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| Telephone: | | |  | | | |
| Contact Name: | | | | |  | | |
| Email: |  | | | | | | | |

The Illinois Department of Transportation reserves the right to waive minor informalities, deficiencies or technical variances which by their nature are restrictive to a given manufacturer, if in its’ judgement, it would be in the best interest of the State to do so and it would not prejudice the rights of other bidders.

Serviceability will be a factor in award. Successful bidder shall either be able to provide service after purchase or shall indicate other qualified service facilities able to service equipment, within a reasonable period of time at agency locations. Bidder shall provide documentation and enumerating service locations. A Review of the bidder's ability to provide prompt parts and service to the State of Illinois and in particular to the delivery location, will be considered in determining award.

Bids will only be accepted from established manufacturers or their authorized dealers. Any dealer submitting a bid hereby guarantees that it is an authorized dealer of the manufacturer and that the manufacturer has agreed to supply the dealer with all quantities of products required by the dealer in fulfillment of its obligations under any resultant contract with the State. Bidder must submit authorized dealer letter upon request.

**Warranty:**

Unless otherwise specified, Manufacturers’ standard warranty shall be provided. **Bidder shall attach copies of warranty with their bid****. Warranty shall commence at the Illinois Department of Transportation in-service date.** If any equipment fails to conform to the warranties during the applicable warranty period, the Vendor or Manufacturer will adjust, repair or replace the equipment at no charge to the Department as soon as possible upon notice from the Department. Equipment shall be repaired on-site and will be performed at no additional cost to the Department.

The Vendor may provide or perform warranty service at a dealer location within the Districts geographic region if on-site repair is not possible. Vendor shall facilitate pickup and delivery of equipment at Vendor's cost if warranty repair(s) are made off-site during the warranty period. The contract Vendor is responsible for any failure of their allied or sub-contractors’ fulfillment of said warranties. Failure to provide this service shall result in a “Complaint to Vendor” that could affect future bid awards.

**Delivery:**

It will be the responsibility of the successful vendor to guarantee delivery within the quoted time and to require allied manufacturers or suppliers to complete the installation of auxiliary equipment in accordance with the quoted delivery time.

Failure to comply with the quoted delivery time because of delays resulting from the inability of suppliers of allied equipment such as bodies, snowplows, spreaders, etc., may be reason to refuse to consider similar items from those suppliers on future bids.

All equipment provided by the Vendor and the sub-contractor(s) shall be fully operational when delivery is made. Any noted defects at the time of delivery shall be addressed by Vendor in the first 30 days of in-service.

Bidder/Vendor acknowledges the requirements above. Yes  No

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| Bidder/Vendor Initials: |  | Date: |  |

**Note: If the equipment proposed exceeds the minimums called for in the specification please do not mark NO. Mark YES and explain with a short comment on how it exceeds**

**All aerial devices shall include the following standard or optional accessories and equipment:**

**Aerial Lift:**

This unit shall be constructed for the primary purpose of providing personnel both an aerial lift platform and a working platform.

Complies: Yes  No

All components and controls for the complete operation of this device shall be contained at the basket at the end of the boom.

Complies: Yes  No

The aerial device shall provide a height of approximately 45 feet to the bottom of the platform with a working height of approximately 50 feet.

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| Height to bottom: |  | Feet |
| Rated working height: |  | Feet |

The boom shall consist of hydraulically extendable/retractable sections and one (1) articulating boom (jib) section at the platform.

Complies: Yes  No

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| Describe: |  |

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The boom shall have a minimum travel arc of 132 degrees including above and below horizontal.

Complies: Yes  No

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| Vertical angle: |  | | degrees |
| Below horizontal: | |  | degrees |

The stowed or transport height of the aerial device shall be no more than 8’-6” high.

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| Transport height: |  | Ft/Ins. |

The aerial device shall be capable of 360 degrees continuous rotation.

Complies: Yes  No

There shall be an LED flashing amber light mounted in a visible location on the body of the aerial.

Complies: Yes  No

**Personnel Platform**

The platform shall be approximately 96” long and a minimum 36” wide and be self-leveling.

Complies: Yes  No

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| Describe platform and size: |  | |
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The platform leveling system shall be a closed system, maintaining the platform in level position relative to the frame of the chassis throughout boom movement.

Complies: Yes  No

A manual leveling valve shall be provided with the lower manual control bank. The lower platform controls shall include an electronic switch to relevel the platform.

Complies: Yes  No

The platform shall be capable of 180-degree minimum hydraulic rotation.

Complies: Yes  No

The platform shall include safety rails and an inward swing or slide style closing gate.

Complies: Yes  No

The platform shall have a minimum 600-pound rated capacity in any boom position. The platform shall include a minimum of two (2) safety lanyard attachment points.

Complies: Yes  No

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| --- | --- | --- | --- |
| Platform size: |  | | Ft/Ins. |
| Platform rating: | |  | Lbs. |

Boom and rotational controls shall be easily accessed by the operator.

Complies: Yes  No

The platform shall be equipped with four (4) adjustable LED work lights.

Complies: Yes  No

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| Describe: |  |

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**Personal Fall Protection:**

The following shall be furnished and shipped separately:

Miller Harness P950QC-77/UGN L/XL or equivalent Two (2) each

Miller Manyard II Stretch/Shock Absorbing Lanyard 216M-Z7/6FGN or equivalent One (1) each

Miller Retractable Web Lanyard AD6902-Z78FTTYL or equivalent One (1) each

Items shall be shipped to: Illinois Department of Transportation

2300 S. Dirksen Pkwy. Room 301

Fleet Administration Unit

Springfield, IL 62764

Complies:  Yes  No

Note: Alternative Personal Fall Protection must meet IDOT standards.

**Boom(s)**

The booms shall be tubular, rectangular steel sections including heavy duty cylinder fittings, pivot pins, and replaceable, ultra-high molecular weight polyethylene wear plates.

Complies: Yes  No

Lift shall be accomplished using double acting hydraulic cylinders with holding devices.

Complies: Yes  No

The boom(s) shall provide a horizontal reach over the side of approximately 39’.

Complies: Yes  No

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| Reach over side: |  | Ft/In. |

The boom or jib section shall be an approximately 6’-0” articulating jib.

Complies: Yes  No

**Operator’s Controls:**

Operator’s controls shall be proportional electronic joystick(s) with a console mounted on the operator’s platform.

Complies: Yes  No

The aerial device controls at the platform shall include all boom and platform functions. Boom master switch, engine start/stop, boom control hi/low switch, engine speed and emergency pump switch shall be included.

Complies: Yes  No

The functions of all controls shall be permanently marked and weather proof.

Complies: Yes  No

A set of controls mounted in a secure location on the chassis shall be provided. These controls shall be capable of over-riding the platform controls.

Complies: Yes  No

**Engine:**

The engine shall be a current production, fuel injected, liquid cooled diesel and meet the following:

The engine shall have a minimum SAE net horsepower rating of 40 H.P. at governed RPM and equipped with a cold weather starting aid.

Complies: Yes  No

Component provided:

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Make: |  | | | | | | | | |
| Model: |  | | | | | | | | |
| Number of cylinders: | | |  | | |
| Horsepower @ governed RPM: | | | |  | | | H.P. | |
| Rated H.P. (Net) | |  | | | H.P. | | |

The engine shall be compliant with all current Tier 4 emission standards.

Complies: Yes  No

**Fuel system:**

The fuel system shall be diesel and clearly labeled as such.

Complies: Yes  No

The fuel tank shall be sized properly to manufacturer’s specifications for engine supplied with unit.

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| Tank capacity: |  |

**Cooling System:**

Manufacturer’s standard cooling system with extended life antifreeze rated to -30°F.

Complies: Yes  No

**Transmission, Axles, & Drive train:**

The aerial device shall be mounted on tracks with a track width of approximately 16”.

Complies: Yes  No

The aerial device shall include a 5º tilt alarm and indicator light to alert the operator of uneven terrain.

Complies: Yes  No

**Chassis:**

The aerial device proposed must include the following approximate dimensions and capacities

Weight – 18,000 pounds

Width – 7’-4”

Ground clearance – 1’-4”

Proposed aerial device:

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| --- | --- | --- | --- |
| Weight: | |  | Lbs. |
| Width: |  | | Inches |
| Clearance: |  | | Inches |

**Tracks:**

Non-marking Rubber Excavator or Quad Track style. The tracks shall be cleated for use off-road rough terrain use.

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| Track dimensions: |  | |
| Length of track on ground: | |  | | Feet/Inches |

Complies: Yes  No

**Auxiliary Power**

The aerial device shall be equipped with 12-volt DC auxiliary power to operate the boom functions in the event of loss of engine power.

Complies: Yes  No

**Hydraulic System:**

The power for the mast shall be provided by an open centered hydraulic system as designed by the manufacturer.

Complies: Yes  No

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| Pump type: |  |
| Flow rating |  |

All hydraulic cylinders shall include holding valves to prevent cylinder collapse in event of hydraulic hose failure.

Complies: Yes  No

The hydraulic oil reservoir shall be as required by the manufacturer and be approximately 35 gallons.

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| Reservoir capacity: |  | gallons |

The hydraulic system shall include filtration to remove debris and water. The reservoir shall be mounted to provide easy access to add oil, or, change filters and screens.

Complies: Yes  No

**Miscellaneous Accessories:**

The following miscellaneous items shall be furnished and functional:

* Horn
* Hour meter
* Tilt alarm/ Object detection warning system
* Tool tray (at platform)
* Lifting/tie down lugs
* 7,500-Watt generator system (capable of powering lights and tools and a welder)
* 1 each 110V-AC receptacle in the platform
* Motion alarm
* Four (4) LED work lights, Whelen Pioneer Micro #MPPBS or equal. Corner mounted
* Anchor points for PPE
* 1/2” air line from ground to the platform thru booms with auto-reel
* Cold weather kit with engine block heater

Complies: Yes  No

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| If no, describe: |  |

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**Paint/Finish:**

All exterior surfaces normally painted shall be cleaned, prepped, painted or powder coated manufacturer’s standard color.

Complies: Yes  No

**Manuals:**

Three (3) copies of all operators’ manuals, parts lists, and warranty information shall be provided at time of delivery to each district receiving one or more units.

Complies: Yes  No

One (1) set of “Service or Shop” Manuals shall be provided to each delivery location.

Complies: Yes  No

***Note:*** The manuals, parts lists, and service or shop manuals listed above may be furnished on CD/DVD or flash drive in lieu of paper.

**Training:**

The successful bidder shall supply training of Department of Transportation personnel. Training shall cover routine service, and minor repair. A second phase shall include the training of selected individuals as operators. The length of the operator’s training shall be a minimum of two (2) working days but may be extended by the receiver if deemed necessary.

Complies: Yes  No

A training video (if available) covering the operation of this equipment shall be provided with the training.

Complies: Yes  No   Not available

**Requirements Covering Items Detailed Above:**

All equipment cataloged as standard shall be furnished and in place and shall be included in the purchase price of the unit. Any parts, tools, and/or accessories not specifically called for but required for proper operation shall be provided.

Complies: Yes  No

The component parts of the unit shall be of proper size and design to safely withstand maximum stresses imposed by a capacity load, and the manufacturer's rated loads for all component parts shall **not** be exceeded when the unit is so loaded.

Complies: Yes  No

Full coverage warranty for a minimum 12 months shall be provided for all components and their installation. The bidder shall attach a copy of warranty with the bid.

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| Describe warranty: |  |
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**Delivery:**

This machine is to be delivered in first-class operating condition with acceptance subject to Department of Transportation approval.

Complies: Yes  No

**Bid Package:**

If not quoting in BidBuy, bidders will need to send two copies of each of the following with their bid response.

a) Specification Questionnaire

b) Descriptive Literature

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| If NO to any portion, explain: |  |
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**Pictures are for visual reference only. Do not scale from pictures.**

