State of Illinois

Department of Transportation

Bureau of Business Services

**Specifications and Questionnaire for a 12” Capacity, Diesel-Powered Brush and Tree Chipping Machine**

November 2019

This specification and questionnaire covers a portable, diesel-powered, chipping machine trailer mounted on pneumatic tires for use by the Department of Transportation for disposing of brush and small trees cut along the highway right-of-way. In an effort to improve parts and service availability and increase tool life, the Department of Transportation is specifying acceptable units by required equipment and accessories as outlined below.

Each bidder shall submit with their bid **two sets** of descriptive literature and specifications describing **all**the equipment proposed. This information shall be clearly marked to indicate the make, model, and accessories proposed to be furnished. Bidders quoting on this 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 and has produced and sold such equipment to the satisfaction of previous buyers.
* 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.

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

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| **Bidders are advised to carefully read these specifications as changes have been made since the last solicitation issue.**  **Proposed with this Bid:** | | | | | | | | |
| Make: | |  | | | | | | |
| Model: | | |  | | | | | |
| Manufactured By: | | | | | | |  | |
| Bidder: | | | |  | | | | |
|  | | | |  | | | | |
|  | | | |  | | | | |
| 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**

**Diesel-Powered Brush Chippers**

The machine shall include the following standard or optional accessories and equipment:

**Chipping Unit:**

The chipping unit shall be rear feed.

Complies: Yes  No

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| If no, describe: |  |
|  | |

The feed roller intake speed may be adjusted by the operator to control forward, stop, or reverse directions. The speed may also be set to match the engine RPM and feed roller hydraulic pressure. This feature shall automatically slow, stop, or reverse as it “senses” the operation of the chipper.

Complies: Yes  No

The chipper shall be drum cutter design with an in-feed capable of opening and chipping 12" diameter material, minimum.

Complies: Yes  No

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| --- | --- |
| Describe type: |  |
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| --- | --- | --- |
| Chipping size capacity: |  | Inches |

The chipping drum shall be minimum 20" diameter with a minimum wall thickness of 1/4".

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| --- | --- | --- |
| Drum diameter /In.: |  | Inches |
| Drum thickness /In.: |  | Inches |

The drum shall contain a minimum of two – 5/8” dual edge cutter knives.

Dual Edged: Yes  No

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| --- | --- |
| Number of knives: |  |
| Knife thickness /In.: |  | Inches |

Cutter knives shall be designed for quick changing.

Complies: Yes  No

An extra, complete set of knives shall be provided with each machine.

Complies: Yes  No

A complete set of all tools necessary to remove the cutter head knives and cutter bar shall be provided.

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| Describe type: |  |
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The housing for the cutting drum and all other enclosures shall be constructed of steel heavy enough to withstand maximum loaded conditions.

Complies: Yes  No

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| Describe steel enclosure and material used: |  |
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**Diesel Engine:**

The chipper shall be powered by a current production, liquid cooled, diesel engine with a gross horsepower minimum of 74hp and compliant with the present emission laws and regulations.

Component provided:

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Make: |  | | | | | | | | | | | | | | | | | | |
| Model: | |  | | | | | | | | | | | | | | | | | |
| Net H.P.: | | |  | | | | | @ | | |  | | | | | | | RPM | | |
| Torque rating | | | |  | | | | | | @ | | |  | | | | | | RPM | | |
| Number of cylinders: | | | | | | |  | | | | | | | |
| Displacement: | | | | |  | | | | Cu. In. | | | | | |
| Rated H.P. (Gross) | | | | | |  | | | | | | | | HP | |
| Turbo Charged: Yes | | | | | | |  | No | | | |  | | | | |  | | | | | |

Complies:  Yes  No

Engine Accessories:

1. Air filter- two stage or filter with pre-cleaner
2. Oil filter- spin-on
3. Battery
4. Alternator
5. Oil pressure activated or RPM activated hour meter
6. Electric start

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| --- | --- | --- | --- | --- |
| Battery rating: | |  | | CCA |
| Rated amps: |  | | | Amps |
| Describe hour meter activation: | | |  | | |
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**Fuel:**

Approximate fuel capacity of 25 gallons.

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| --- | --- | --- |
| Fuel capacity: |  | Gallons |

Complies:  Yes  No

Fuel tank or cap clearly labeled "Diesel Fuel Only."

Complies:  Yes  No

The chipper shall be supplied with a safety cutoff switch or engine stop switch. This switch shall be activated by a device(s) at the feed apron.

Complies: Yes  No

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| Describe safety cutoff: |  |
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All controls shall be located at the rear of the machine.

Complies: Yes  No

**Disposal Chute:**

Disposal chute shall pivot a minimum 270º and capable of discharging chips into the towing truck. An extension shall be furnished, if not an integral part of the chute.

Complies: Yes  No

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| If NO, describe: |  |
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**Trailer/Chassis:**

The trailer and/or chassis shall be capable of highway speeds transporting a fully loaded machine.

Complies: Yes  No

The axle, torsional suspension, and tires shall have minimum 7,000 pound capacity.

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| --- | --- | --- | --- |
| Suspension rating: |  | | lbs. |
| Describe axle & suspension: | |  | | |
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**Tires:**

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| --- | --- | --- | --- | --- |
| Make: | |  | | |
| Model: |  | | | |
| Capacity: | | |  |
| Tread type: | | |  |

The trailer/chassis shall be equipped with electric brakes on all wheels.

Complies: Yes  No

The trailer/chassis frame shall be a minimum 4” channel or tube steel.

Complies: Yes  No

The tongue length shall be of sufficient length to provide swing clearance on IDOT trucks with an under-tailgate salt spreader installed. Extensions may be required.

Complies: Yes  No

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| Describe tongue: |  |
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***Note:*** Compliance with this feature will be tested using an IDOT truck equipped with a standard tailgate spreader. Acceptance will not take place until compliance is determined.

Hitch type shall be a 3" pintle eye with a level hitch height of 24" to 27”.

Complies: Yes  No

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| Hitch height: |  | Inches |

A two-speed, retractable, adjustable, jack stand with flat pad rated at a minimum 3,500 lb. capacity of adequate length to raise tongue to 36" height shall be furnished.

Complies: Yes  No

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| --- | --- | --- | --- |
| Stand rating: |  | | Lbs. |
| Extended height: | |  | Inches |

Safety chains shall be furnished.

Complies: Yes  No

Lighting and reflectors:

The unit shall include LED lighting and reflectors meeting DOT regulations.

Complies: Yes  No

**Paint/Finish:**

All exterior surfaces normally painted shall be painted or powder coated manufacturer's standard color.

Complies: Yes  No

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| Describe finish: |  |
|  | |

**Additional Accessories:**

The following optional equipment shall **only** be quoted if specifically called for in the **“Bid”**.

**Option #1 Hydraulic Brakes:**

The brake system shall be hydraulic in “lieu” of the standard electric brake system.

Complies: Yes  No

**General:**

One copy of the operator's manual shall be included at delivery of each machine.

Complies: Yes  No

Two copies of all operator's manuals, parts lists, and warranty information shall be provided at time of delivery to each district receiving one or more units.

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.

Instruction and training by qualified factory and dealer personnel covering operation and maintenance of the machine shall be provided at the time of delivery for a minimum of two (2) IDOT representatives.

Complies: Yes  No

**Requirements Covering Items Detailed Above:**

All equipment cataloged as standard or safety related 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 manufacturers’ rated loads for chains and bearings shall not be exceeded when the unit is loaded with such loads.

Complies: Yes  No

If required, standard tool kits shall be supplied.

Complies: Yes  No   Not required

Full coverage warranty for a minimum 12 months shall be provided. **Bidder shall attach copy of warranty with bid.** Since the continuous operation of this equipment is of the utmost importance and sometimes of an emergency nature, it is necessary that the successful bidder be in a position to render prompt parts and service within the State of Illinois.

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| Describe warranty: |  |
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The vendor or manufacturer of the unit considered for award shall, at the request of the State of Illinois, demonstrate this equipment within the receiving District in the State of Illinois and in the presence of authorized IDOT personnel to prove out any features which may be in question.

Complies: Yes  No

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

If No to any portion, please explain:

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**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