State of Illinois

Department of Transportation

Bureau of Business Services

**Specifications & Questionnaire for a Tandem Axle, Tag Equipment Trailer W/Air Brakes**

40,000 lbs. Minimum Load Capacity

July 2019

This specification is designed to aid the Department of Transportation in the purchase of an efficient and dependable tandem axle, single point suspended trailer for maintenance operations.

All bidders are expected to quote upon a manufacturer's latest standard conventional model complete with all standard equipment plus any optional or special equipment required meeting the following specifications.

Each bidder shall submit with his 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.

Bidders quoting on specified equipment must submit with their bid.

1. 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.
2. 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.**

**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: | | |  | | | | |
|  | | | | |
| Contact name: | | | | |  | | |
| Telephone: | | | |  | | |
| 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:**

Manufacturers’ standard warranty shall be provided. **Bidder shall attach copies of warranty with 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

|  |  |  |  |
| --- | --- | --- | --- |
| 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.**

**Trailer Type:**

Tag trailer, Tandem axle, dual wheel, eight (8) pneumatic tires, rigid deck, with sloped beavertail and folding ramps.

|  |  |
| --- | --- |
| Number of tires: |  |
| Number of axles: |  |

Complies: Yes  No

**The trailer’s capacity shall be calculated as:**

The ability to transport 40,000 lbs. minimum load capacity at a highway speed of 55 M.P.H.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Load capacity at 55 mph: |  | Lbs. |

**Frame:**

Main beams shall be wide flange beams pierced to allow full through crossmember installation or tubular steel stacked on top with gussets capable of supporting in excess of the rated trailer capacity.

Complies: Yes  No

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Main beam description: |  | | | |
| Main beam size on chassis: | |  | Lbs./ft. |

All frame members shall be 50,000 psi. minimum, steel main-rails from front to drawbar to rear of trailer.

|  |  |  |
| --- | --- | --- |
| Steel rating: |  | PSI |

Crossmembers shall be designed, sized and spaced to meet trailer GVW specifications. The manufacturer shall use the shaped member to meet or exceed the specified

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Crossmember size: | |  | | @ |  | | Lbs./ft. | |  | |
| Weight/length on |  | | Centers | | |  | |  | |  | | centers |

Side rails shall be approximately 7" structural channel, tubular, or beam.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Channel/tube size: | |  | Inches | |
| Weight/length: |  | | | Inches | |

**Trailer Deck:**

Deck height dimension is critical. Trailers considered must have loaded deck height built to this specification no greater than 36"

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Loaded height: |  | Inches |

Type - Wood decking, full 2" thick oil or sealed hardwood, Oak or Apitong or equal, over steel frame with recessed fasteners. Steel reinforced wheel covers

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Thickness: |  | Inches |
| Type of wood: |  | | |

Trailer Width - 96" minimum 102” maximum

|  |  |  |
| --- | --- | --- |
| Width: |  | Inches |

Length - 20' minimum deck. (NOT including beavertail)

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Deck length: |  | Feet/Inches |
| Length of beaver tail: |  | Feet/Inches |

**Beavertail:**

Type - Wood decking, full 2" thick hardwood, over steel frame matching deck.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Thickness: |  | Inches |
| Type of wood: |  |  |

Width- shall match trailer deck.

Length and Slope - Minimum 5' long slope with an approximate climb angle of 12o.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Length: |  | Feet |
| Width: |  | Inches |
| Angle of climb: |  | Degrees |

**Tongue:**

The tongue shall extend approximately 7'0" ahead of the deck. Length shall allow for swing clearance on IDOT dump trucks equipped with an under the tailgate salt spreader.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Length: |  | Feet |

The tongue shall be an “A”-frame, designed with ample safety factor to withstand a minimum 20 percent of the rated gross vehicle weight of the trailer.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Load rating percentage: |  | Percent |

**Toolbox:**

Toolbox located on tongue with lockable lid.

Complies: Yes  No

**Load Transfer:**

The trailer shall be capable of transferring a minimum of 15 percent and a maximum of 20 percent of its load to the towing vehicle.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Weight transfer: |  | % with centered load. |

The trailer shall be clearly marked, visible on both sides, where 15 percent and 20 percent of the load transfer occurs.

Complies: Yes  No

|  |  |
| --- | --- |
| Describe marking: |  |

**Loading Ramps:**

Type – Ladder design, open cleat, ramps are to be raised and lowered utilizing two-way spring assist.

Complies: Yes  No

Width - Manufacturer's standard, ramps shall allow for the loading of narrow track equipment.

Complies: Yes  No

Length - As required to maintain the 12o loading angle.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Length: |  | Feet/Inches |
| Width: |  | Feet/Inches |
| Angle of climb: |  | Degrees |

Capacity - Equal to trailer capacity

|  |  |  |
| --- | --- | --- |
| Capacity: |  | Lbs. |

Supports - Required under upper area of ramp integral, steel construction

Complies: Yes  No

|  |  |
| --- | --- |
| Describe: |  |

Storage - Ramps shall be stored and secured to trailer frame in upright or vertical position.

Complies: Yes  No

|  |  |
| --- | --- |
| Describe securing method: |  |

**Deck Accessories:**

Tie Down Eyes – Pre-bent “D”-rings or 360 degree swivel rings, minimum of five (5) equally spaced on each side of trailer.

Complies: Yes  No

The “D”-rings or 360 degree swivel rings shall have a rated capacity of 50,000 lbs.

|  |  |  |
| --- | --- | --- |
| Rated capacity: |  | Lbs. |

Snatch Point - Heavy-duty eye located front center of deck with load capacity equal to trailer

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Rated capacity: |  | Lbs. |

**Brakes:**

Type- All wheels full air, anti-lock meeting Federal requirements 4S2M system.

Effective Lining Area - As required for 40,000 lb. rating

Complies: Yes  No

**Brake Connections:**

One standard air brake connector kit shall be provided with each trailer. The glad hands shall be Meritor Wabco part number 952 201 018 0 filtered units or IDOT approved equal

Complies: Yes  No

The trailer shall be furnished with bright colored, coiled air lines at the "A" frame.

Complies: Yes  No

**Breakaway System:**

An emergency breakaway system with manual release shall be provided with each trailer.

Complies: Yes  No

|  |  |
| --- | --- |
| If NO, please describe: |  |

**Axles:**

Type – Two each 22,500 lbs. axle capacity minimum with oil bath hubs. Capacity at Ground - 40,000 lbs. minimum.

Complies: Yes  No

Component:

|  |  |
| --- | --- |
| Make: |  |
| Model: |  |
| Capacity: |  |

**Suspension:**

Type– Hutchens, Holland Duralite or equal adjustable suspension as required and recommended for tandem axle configuration.

Total Capacity at Ground - 40,000 lbs. minimum

|  |  |
| --- | --- |
| Suspension type: |  |

Complies: Yes  No

Component:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Make: |  | | | |
| Model: | |  | | |
| Capacity: | |  | Lbs. |

**Wheels:**

Type - Dual, cast spoke or steel disc

Rim Size - 17.5 X 6.75 HC minimum

Wheel Seals - Oil type

Complies: Yes  No

Component:

|  |  |  |
| --- | --- | --- |
| Make: |  | |
| Model: | |  |
| Size: | |  |

One spare tire and wheel provided and mounted according to manufacturer’s standard.

Complies: Yes  No

One of the right wheels shall also be equipped with a hub-odometer, designed for the size of wheel and tire proposed to be furnished. The hub-odometer hub assembly shall also allow easy oil level checking.

Complies: Yes  No

Component:

|  |  |  |
| --- | --- | --- |
| Make: | |  |
| Model: |  | |

**Tires:**

Type- Tubeless, radial, trailer, designed primarily for on highway use.

Size - 215/75R X 17.5, Load Range H or as needed to meet load capacity.

Component:

|  |  |  |
| --- | --- | --- |
| Make: |  | |
| Model: | |  |
| Size: | |  |

**Hitch:**

Type - Pintle eye for use with Premier Model 2200 latching hook.

Capacity – Minimum 60,000 lbs. Gross trailer weight. Minimum 15,000 lbs. Tongue weight, Inside diameter 3 in.

Height – The usual pintle hook height on IDOT dump trucks is approximately 25” from level ground. The hitch provided must include the ability to pull the trailer level. The hitch shall also provide the capability to position the eye in multiple mounting locations. The pintle mounting plate shall be approximately 19” high, with multiple mounting holes for the eye.

Complies: Yes  No

Component:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Make: |  | | | | |
| Model: |  | | | | |
| Adjustment height: | |  | to |  |

**Safety Chains:**

Type - 1/2" steel chain, Grade 70, with matching rated hooks

Location - Outside of hitch frame.

Complies: Yes  No

**Landing Stand/Parking Jack(s):**

Type - Center mount, screw adjustable, 20,000 lbs. static capacity minimum. The mounting location must be approximately 30” back of the pintle plate to clear tailgate spreader.

Complies: Yes  No

Component:

|  |  |  |  |
| --- | --- | --- | --- |
| Make: |  | | |
| Model: |  | | |
| Capacity: |  | Lbs. |

**Electrical System:**

Type - 12 volt

Complies: Yes  No

**Lights (LED):**

Combination Rear Tail, Turn and Stop Signal:

Type - Dual combination Class A, sealed, shock mounted, LED 4” minimum Truck Lite Super 44 or equal.

Location - Rear of trailer, recessed for protection

LensColor - Red

Complies: Yes  No

**License Plate Lamp:**

Type- Sealed LED Truck-Lite Model 15 series or equal.

LensColor - Clear

Complies: Yes  No

**Rear Identification Lights (3-Bar):**

Type-Shock mounted LED Model 15 or 35 Truck-Lite ID bar series or equal.

Location - Rear of trailer, recessed for protection

Lens Color - Red

Complies: Yes  No

**Clearance Lights:**

Type - LED Truck-Lite Model 15, 18 or 21 series or equal

Location - As required

Complies: Yes  No

**Lights and Reflectors:**

Must meet all federal and SAE regulations and comply with the Illinois Law and Vehicle Code in effect at the time of manufacture.

Complies: Yes  No

DOT approved reflective conspicuity tape shall run entire length of trailer.

Complies:  Yes  No

**Wiring:**

Wiring shall be complete 12 volt with sealed modular wiring harness. All connections shall be in a weatherproof junction box. Quick-disconnected splices, soldered and covered with shrink-wrap are not acceptable.

All lights, wiring, and junction boxes shall combine to form a sealed waterproof system, Truck-Lite's 50800 series or equal for commercial vehicles utilizing standard production wiring harnesses where practical.

Component:

|  |  |  |
| --- | --- | --- |
| Make: |  | |
| Model: | |  |

All lamp connections and all junction box post connections shall be treated with a corrosion inhibitor.

Complies: Yes  No

All wiring passing through metal shall be protected by formed rubber grommets.

Complies: Yes  No

**Note**: Use of garden or other styles of hose as grommeting is ***not*** acceptable.

All wiring not in conduit shall be secured utilizing nylon or coated clamps bolted to the frame at 18" minimum spacing.

Complies: Yes  No

|  |  |
| --- | --- |
| If NO, please explain: |  |
|  | |

**Truck Connection for Lighting and Electrical:**

Type – Heavy all-weather cord with 7-way connector, utilizing round pins and sockets, SAE/ATA approved, plug portion installed on trailer with lead long enough to allow for turning movements of the trailer. The pin portion or socket is provided with the truck installation. (See diagram on last page).

Complies: Yes  No

**Paint/Finish:**

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

Complies: Yes  No

All under carriage not painted or powder coated shall be coated with an automotive type corrosion prohibitor.

Complies: Yes  No

|  |  |
| --- | --- |
| Describe Rustproofing: |  |

**Additional Accessories:**

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

**Optional Deck Length:**

Optional deck length as specified in the bid line item.

|  |  |  |
| --- | --- | --- |
| Deck Length: |  | Feet/Inches |

Complies: Yes  No

**Hydraulic Ramps:**

Ramps shall be raised and lowered by means of self-contained electric over hydraulic system.

Complies: Yes  No

Storage - Ramps shall be stored and secured to trailer frame in up position to prevent shock loads to hydraulic cylinders.

Complies: Yes  No

|  |  |
| --- | --- |
| Describe securing method: |  |

Controls - Hydraulic controls for raising and lowering ramps shall be located on the curbside, rear portion, of the trailer.

Complies: Yes  No

**Extended Beavertail and Ramps:**

Dovetail and ramps shall be a minimum 6’ each.

Complies: Yes  No

**Wood Ramps:**

Ramps shall be lined with 2" Oak or Apitong to match decking on trailer.

Complies: Yes  No

**Double Break Dovetail:**

Double break dovetail shall consist of a minimum 7' 6" dovetail with 6' ramps lowering loading angle to 6 degrees.

Complies: Yes  No

**Open Cleat Beavertail (Angle Iron):**

Beavertail deck shall be constructed of evenly spaced angle iron.

Complies: Yes  No

**Winch:**

The trailer shall be equipped with a 15,000 lbs. rated, electric 12-volt winch with automatic load-holding brake.

Complies: Yes  No

Component:

|  |  |
| --- | --- |
| Make: |  |
| Model: |  |

Power for winch shall be supplied utilizing a trailer mounted battery charged by tow vehicle. Battery should be installed in vented enclosure

Complies: Yes  No

Controls for the winch shall include minimum 12 ft. removable remote control switch.

Complies: Yes  No

The winch shall be located at the front of the trailer deck at deck level and shall be securely mounted to withstand rated load.

Complies: Yes  No

The winch shall include a 4-roller fair lead.

Complies: Yes  No

The winch shall be equipped with approximately 100' of 3/8"-1/2” synthetic rope fitted with clevis hook and safety latch.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Cable diameter: | |  |
| Cable length: |  | |
| Cable rating: |  | |

**Manuals:**

Two (2) 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.

Instruction performed by qualified factory or dealer personnel covering the operation and routine service and maintenance of the equipment shall be provided upon delivery. The training shall be for all personnel in the assigned headquarters location of the equipment.

Complies: Yes  No

|  |  |
| --- | --- |
| Describe Training: |  |
|  | |
|  | |

***Note:*** *This is not a sales call*. Training not meeting IDOT expectations will be cause to generate a “Complaint-to-Vendor”.

**Requirements Covering Items Detailed Above:**

The trailer shall be furnished complete with all safety components that are required by the current Federal Safety Standards for the size trailer proposed.

Complies: Yes  No

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

Standard tool kits shall be supplied if required.

Complies: Yes  No   Not required

Full coverage warranty for a minimum **12 months** shall be provided. Bidder shall attach copy of warranty with bid.

Complies: Yes  No

|  |  |
| --- | --- |
| Describe warranty: |  |

**Repair Parts and Service:**

Since continuous operation of this trailer is of the utmost importance and many times 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.

|  |  |
| --- | --- |
| List sources for parts and service : |  |
|  | |
|  | |
|  | |

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

Complies: Yes  No

**Delivery:**

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

The trailer shall be delivered oiled, greased, serviced and ready for operation.

Complies: Yes  No

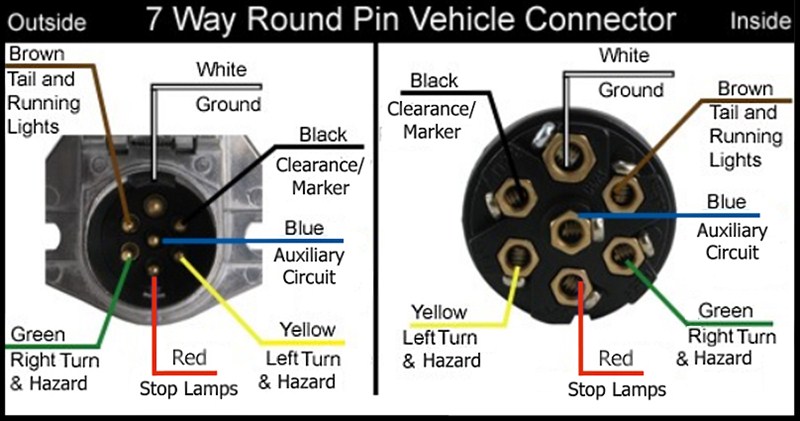
|  |  |
| --- | --- |
| If NO to any portion, please explain: |  |
|  | |
|  | |

**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



***Note:*** Navistar uses a Dark Green Wire for their ABS pin instead of the blue shown.