

NOTICE OF BID

The City of Pigeon Forge is receiving bids on one knuckle boom trash loader for the sanitation department.

Specifications may be obtained from the Public Works Department at City Hall between the hours of 8:00 and 4:30, Monday thru Friday.

Bids will be received until 10:00 a.m., November 20, 2013, at which time they will be opened and read aloud.

All bids must be in sealed envelope with bidders name and address on outside and marked bid on "Knuckle Boom Trash Loader."

The City reserves the right to reject any or all bids or to accept the bid most favorable to the City.

This 23rd day of October, 2013.

Public Works Department
City of Pigeon Forge

INVITATION TO BID

SPECIFICATIONS ON A HEAVY DUTY TRASH/BRUSH LOADER, BULK TRASH/JUNK BODY, MOUNTED ON A NEW TRUCK & CHASSIS

SCOPE: The intent of these specifications is to describe a heavy duty trash/brush loader & bulk trash body mounted on a new truck & chassis for use in the City's refuse collection system.

GENERAL: All equipment furnished shall be new, unused and of the manufacturer's current production design. Bidder must accurately complete this specification sheet and include it as a portion of the bid response. Failure to submit form indicating any deviations from the specifications shall be grounds for rejection of bid. Any deviations or exception from the stipulated specifications shall be listed on a separate sheet labeled "Exceptions to Bid Conditions and Specifications" and attached to the bid.

MANUALS & KEYS: The successful Bidder will be required to include in their price and ship with the truck (2) complete sets of manuals for all equipment furnished – (1) bound copy and (1) digital copy. These sets shall include (as a minimum and operator's manual, a service manual, and a parts manual. Bidders shall supply two (2) sets of keys.

I. TRUCK SPECIFICATIONS	YES	NO
II. New and Unused 2013 conventional cab- chassis, Freightliner M2-106 or equal, 186" Useable CA, 91" Axle to Frame, Cab & Wheels - White. 33,000# GVWR.	_____ _____ _____	_____ _____ _____
A. ENGINE:		
1. Cummins Diesel, In-line 6 cylinder, Total Electronic. 270 HP @2,000 RPM; 800 lb-ft Torque@ 1,300 RPM	_____	_____
2. Single-stage, Dry-type Air Cleaner.	_____	_____
3. Variable-speed Electronic Governor.	_____	_____
4. 12 Volt Starter.	_____	_____
5. Heated Fuel/Water Separator.	_____	_____
6. Gauge, air cleaner restriction.	_____	_____
7. Engine Mounted Oil Cooler.	_____	_____
8. RH Horizontal Muffler with RH under step aftertreatment system. Allows regeneration in PTO mode.	_____	_____
9. 1,100 in ² aluminum radiator.	_____	_____
10. Engine Brake and Cruise Control.	_____	_____
B. TRANSMISSION:		
1. Allison 3500 RDS-P, Wide Ratio, 6-Speed Electronic Automatic, Dash Mounted Push Button Controls.	_____	_____
2. Synthetic oil, only	_____	_____
3. Water to Oil Transmission Fluid Cooler	_____	_____

C. FRONT AXLE:

- 1. 12,000# Capacity Set Back Front Axle. _____
- 2. 12,000# Capacity Front Suspension. _____
- 3. Oiled Wheel Seals. _____
- 4. Shock Absorbers, Double-Acting, Telescopic. _____
- 5. Power Steering _____

D. REAR AXLE:

- 1. 21,000# Single-speed Rear Axle with Driver Controlled Traction Differential, 5.57 Rear Axle Ratio. _____
- 2. 21,000# Multi-leaf Rear Suspension with Helper and Radius Rod _____
- 3. Wet-type Rear Wheel Seals. _____

E. FRAME:

- 1. Heavy-duty Frame Rails – heat treated alloy steel (120,000 PSI Yield); 10.9375" X 3.5" X 11/32" with "C" channel reinforcement; 26.8 SM, minimum; 3,217,200 RBM , minimum. _____
- 2. Frame Mounted Front Tow Hooks. _____
- 3. Three-piece chromed Heavy-duty Front Bumper. _____

F. BRAKES:

- 1. Full Air Brakes, Cam-type with ABS and Automatic Slack Adjusters. _____
 - a. 16.5" X 5" Q+ Front Brakes.
 - b. 16.5" X 7" Q+ Rear Brakes.
- 2. Spring Set Parking Brake. _____
- 3. Brake Dust Shields. _____
- 4. Heated Air Dryer. _____
- 5. 18.7 CFM Air Compressor. _____
- 6. System drain valve _____

- G. FUEL TANK: LH mounted 50 Gallon with Step. (Aluminum material). _____
6 Gallon DEF Tank.

H. ELECTRICAL:

- 1. 12V Electrical System with Circuit Protectors. _____
- 2. 160 Amp Alternator. _____
- 3. Two (2) H.D. Batteries, 1850 Total CCA, minimum. _____
- 4. Battery Disconnect Feature. _____
- 5. Backup Alarm. _____
- 6. Minimum 1000 Watt / 115 volt Engine Block Heater with Recessed Plug. _____
- 7. LED for Flashing, Stop, Turn & Tail lights _____
- 8. Clearance/Marker Lights – Amber LED lights, flush mounted _____
- 9. (2) Grill Mounted LED Strobe Lights _____
- 10. Minimum 54" LED Light Bar 4 per side with control Head _____

I. WHEEL & TIRES:

- 1. 22.5 X 8.25 10 Hole Hub piloted disc wheels. _____
- 2. 11R22.5-14PR Front Tires Michelin XZE2 _____
- 3. 11R22.5-16PR Rear Tires Michelin XDE _____

J. CAB EQUIPMENT:

- 1. Tilting Fiberglass Hood & Fenders. _____
- 2. Tinted Glass All Around. _____
- 3. Molded-In Color West Coast Mirrors with
Molded-In Convex Mirrors. _____
- 4. Variable Speed Windshield Wipers & Washers. _____
- 5. Dual 24" Aluminum Air Horns. _____
- 6. Cigar Lighter. _____
- 7. Daytime Running Lights. _____
- 8. Tilt and Telescopic Steering. _____
- 9. LH & RH Sun Visors. _____
- 10. Deluxe Hi-Back Air Suspension Driver's Seat &
Stationary 2-Man Passenger Seat with Under seat Storage Compartment. _____
- 11. Instrumentation:
 - a. Air Cleaner Restrictor Indicator. _____
 - b. Gauges & Warning Lights for Low Oil Pressure, High Engine
Temperature and Low Coolant Level, & Low Air Pressure. _____
 - c. Hour Meter in cab, Oil Pressure Gauge, Air Pressure Gauge,
Coolant Temperature Gauge, Fuel Gauge,
Electronic Speedometer, Electric Tachometer, Transmission
Oil Fluid Gauge and Voltmeter. _____
- 12. Integral Air Conditioning with Heater and Defroster. _____
- 13. AM-FM-CD Weather band Stereo Radio. _____
- 14. 5# ABC Fire Extinguisher, Mounted. _____
- 15. Safety Reflective Warning Triangle Kit, Cab-Mounted. _____
- 16. Cab entry assist handles shall be located on both
sides of the truck cab, interior and exterior. _____
- 17. First Aid Kit. _____

K. WARRANTY: Bidder Shall State Warranty.

L. OPTIONS: Bidder shall list the costs of each extended warranty.

- 1. Extended Warranty Coverage for Five (5) Years, 150,000 miles, and 10,000 hours
(whichever comes first) for the Engine & Engine Electronics (includes electronic fuel
injectors), Transmission and Driveline
- 2. Towing Warranty (maximum \$ 450 per incident) to nearest warranty repair facility.

SPECIFICATIONS FOR A HEAVY DUTY TRASH LOADER

It is the intent of these specifications to describe a truck mounted, hydraulic operated knuckle boom trash loader to be used in collection and loading of bulk trash, limbs, leaves, building materials of like nature. These specifications are describing and stating the minimum requirements of a truck mounted trash loader to perform this function.

A. Pedestal: To be A-Frame design constructed of formed high strength steel channels ensuring a 3:1 safety ratio. Top and bottom of the pedestal to be constructed of 1½” steel plate. Pedestal must be mounted directly to the frame rails. Access to the hydraulic hoses shall be effected through an easily removable steel cover. _____

B. Boom Pivot: Pivot to be mounted to the pedestal by a slewing ring / bearing having a minimum capacity of 513,000 pounds static load and 186,000 ft. lbs. moment. Slewing ring to be 3½” thick and have an OD of 25¾”. Boom pivot has a 9” OD safety retaining tube 12” long. Must have minimum of 270° swing with mechanical stops for safety. Pivot shall utilize a direct hydraulic swing drive. _____

C. Main Boom. To have two (2) heavy duty 4” x 8” x ⅜” thick wall tube or equal. Main boom to be of twin design. Main boom to have a manual stop for tip boom to prevent tip boom from bottoming out. Must have internal check valves. _____

D. Tip Boom. To have heavy duty 5” x 7” x ⅜” thick wall tube or equal. Tip boom to have a 4’ telescopic extension tip section constructed of 4” X 6” X ⅜” thick wall tube or equal. Extension must have replaceable nylon bearings on all three (3) sides with a roller on the bottom. Must have internal check valves. _____

E. Boom Length. Boom length shall be 16’ with a telescoping section extending length to 20’. _____

F. Lifting Capacity. At twenty (20’) feet, loader must lift 3,300 pounds “payload” in addition to weight of grapple. _____

G. Loader Stabilizers. Loader must be equipped with hydraulic operated stabilizers. Stabilizers to be positioned for maximum stability when lifting a 3,300 pound load at 20’. Stabilizers to be equipped with **street pads** (rubber lined). Stabilizer shall telescope horizontally in and out; vertically up and down, and operate independently by individual controls. To protect the hydraulics, cylinders must be mounted inside the telescoping legs. Stabilizers will have a maximum of 12’ spread in the down position. Cylinders shall have internal holding valves for the up and down movement to prevent stabilizers leaking. _____

H. Bushings and Pins. All boom connections points must be equipped with replaceable bushings and heat treated pins. _____

I. Oil Tank and Filter. Hydraulic system must be equipped with a 40 gallon oil tank, with sight, and temperature gauge; and a 50 gallon per minute oil filter, with replaceable 10 micron filter element, and an in-tank suction strainer.. _____

J. Power Source. Unit to be mounted with clutch type (Hot Shift) PTO with a overspend protection and a heavy-duty bi-rotational tandem hydraulic pump. PTO will not engage unless truck is in neutral and parking brake is set. _____

K. Valves and Cylinders. All valves and cylinders to be of high quality to assure long lasting service life and smooth operation. Main valve must be equipped with main relief valve. Main boom, tip boom and stabilizer cylinders shall have internal pilot operated check valves. Internal check valves protect the valves and the operator. _____

L. Throttle Control. Unit to have a throttle control with an electric switch to maintain proper RPM under a load. Switch for throttle control to be mounted on operator's platform for operator's convenience. Unit will not throttle unless PTO is on, truck is in neutral and parking brake is set. _____

M. Trash Grapple. To have 360° continuous rotating bucket by means of a replaceable hydraulic swivel with no mechanical stops. To be replaceable, swivel must not be welded or be an integral part of the grapple. Trash grapple shall be opened and closed by two (2) hydraulic cylinders and have a minimum closing pressure of 3,000 pounds. Grapple is to be 4' long and open to 60 inches, lip to lip with bolt-on replaceable high strength, high carbon steel cutting edges. Bucket cylinders and hoses shall be enclosed in removable steel cover. _____

N. Operator's Platform. There will be a stand up type operator's platform on each side of the truck. Controls shall be dual hydraulic joystick controls with electric thumb switches mounted on both sides. Proper space between cab and pedestal shall be allowed for walk-through operation. Body dump controls to be a different color from the boom controls. _____

O. Paint. Unit shall get one (1) coat of high grade primer and two coats Of high grade enamel. Color shall be Safety Orange. _____

P. Entire unit shall have a one (1) year parts and labor warranty, a two (2) year gear box warranty, and a three (3) year structural warranty. _____

HEAVY DUTY BULK TRASH BODY

It is the intent of these specifications to describe a heavy duty trash body to be used in collection and loading of bulk trash, limbs, brush, leaves, building materials, etc., or any other materials. Material, workmanship, design and capacities are being specified for a piece of equipment that will be required to do a certain job.

A. Minimum 24 cubic yard capacity. _____

B. Minimum 18 foot body length. _____

C. Body to be mounted with 60" minimum between the body and the back of the cab. _____

D. Body to be constructed with 8" @ 9.8 lbs. per ft. full length structural channel main sill and 4" @ 5.4 lbs. per ft. structural channel cross sills. Cross sills to be placed on 12" centers. Body floor to be built with 3/16" steel, floor to be formed over and under the end of cross sills. Body overall width not to exceed 8'. _____

E. Body sides to be constructed with 10 gauge sheet metal. Wall stiffeners to be 11 gauge formed channel placed on 24" centers. Body sides to have 11 gauge formed channel at top of sides. Side stakes to be interconnected and welded to top rail. Front body wall to be 42" high and slope to 60" tall 8' from the body front. Side to be continuous welded to floor. _____

F. Body headboard to be constructed of 10 gauge sheet metal with 11 gauge formed stakes and 11 gauge formed top rail. _____

G. Body to have skow tail with no doors.

H. Body hoist to be two (2) two-stage telescoping hydraulic cylinders with a 5" ID bore. Hoist shall provide a 45° dumping angle and a minimum lifting capacity 40,000 pounds. _____

J. Lighting - Body shall be equipped with lights to meet all state and federal safety standards. All wiring shall be protected with metal tubing. All lighting shall be LED and mounted in rubber cushions. All signal, brake, etc. lighting on the truck chassis shall be LED. Also, body shall be equipped with four (4) recessed corner lights, three (3) recessed ID lights, and all lights and reflectors to comply with FMVSS-108. The rear body shall be equipped with two (2) LED (6" oval) flashing lights connected to the turn signals, mounted in the rear post. _____

K. Unit shall be properly cleaned and get one (1) coat of high grade primer _____ and two (2) coats of high grade enamel Color shall be **Orange**.

L. Body shall rear safety bumper with conspicuity tape applied. _____
Body side rub rails shall have conspicuity tape applied. _____
Body shall have body safety props installed on each side of the body.

M. Body and hoist shall be warranted for one (1) year parts and labor, _____
(3) year Drive Warranty, (3) year Structural Warranty.

If you have any questions call Bud McCarter, Sanitation Supervisor, 865-429-7312.

Mail bids to: Public Works, PO Box 1350, Pigeon Forge, TN 37868

Hand Delivery: Public Works, 225 Pine Mountain Road, Pigeon Forge, TN 37863

Bid Sheet

Name_____

Address_____

Contact_____ Phone_____

Email_____

Truck/Chassis:_____

Trash Loader:_____

TOTAL BID:_____

Option 1 Extended Warranty (page 3):_____

Option 2 Towing Warranty (page 3):_____

Delivery Time:_____