

## **NOTICE TO BIDDERS**

The City of Corinth, Mississippi will receive sealed bids for the following described equipment until 11: 00 o'clock a.m. CST on the 17<sup>th</sup> day of January 2018, and shortly thereafter the bids shall be opened and read aloud.

One Knuckle Boom Loader and Trash Body with Chassis

Complete and detailed specifications may be obtained from the office of the City Clerk, 300 Childs Street, Corinth, Mississippi 38834; Telephone 662-286-6644; E-mail [cortax@bellsouth.net](mailto:cortax@bellsouth.net); or Website [citycorinthms.com](http://citycorinthms.com).

All bid envelopes should be sealed and clearly marked **“Bid for a One Knuckle Boom Loader and Trash Body with Chassis.”**

The City reserves the right to reject any and all bids.

Done by direction of the Board of Mayor and Aldermen on December 19, 2017.

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Vickie Roach  
City Clerk

Publish: December 23, 2017  
December 30, 2017

BID SPECIFICATIONS FOR:  
**2018 KNUCKLE BOOM LOADER AND TRASH BODY WITH CHASSIS**

THE UNIT WILL BE USED IN COLLECTION AND LOADING OF BULK TRASH, LIMBS, LEAVES, BUILDING MATERIALS, AND WHITE GOODS, OR OTHER MATERIALS OF THAT NATURE. **UNIT MUST BE MANUFACTURED** in an ISO 9000:2000 certified facility. All bidders must fill in all information. If meeting or EXCEEDING SPECIFICATIONS PUT **YES**, AND IF EXCEPTIONS ARE TAKEN PUT **NO**. ANY EXCEPTIONS MUST BE EXPLAINED IN WRITING. ALL PROPOSALS INCLUDE DELIVERY, TRAINING OF OPERATORS AND SERVICE PERSONNEL.

<b>LOADER SPECIFICATIONS</b>	<b>YES</b>	<b>NO</b>	<b>COMMENTS</b>
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<p><b>1.0 BOOM:</b></p> <p>1.1 Boom length to be 16ft. with 4ft. telescoping section to 20ft.</p> <p>1.2 Minimum lift capacity to be 3,300 Lbs. @ 20ft. including grapple.</p> <p>1.3 Boom Pedestal to be constructed of High Strength Steel, providing a 3:1 safety factor.</p> <p>1.4 All hydraulic hoses located at the operator position (Boom Pedestal) must be enclosed in the pedestal base. Access provided by an easily removable steel cover.</p> <p>1.5 Boom Pivot shall be mounted to the pedestal by means of a slewing ring bearing that has a minimum capacity of 513,000 lbs. static load and 186,000 Ft-Lbs. moment. Slewing ring shall be 3 1/2" thick and have an O.D. of 25 3/4". Boom pivot shall be constructed with a 9" O.D. safety retaining tube. The Boom Pivot Safety Retaining Tube shall be a minimum of 12" long and confine all hoses which pass through the Pedestal/Boom Pivot Assembly.</p> <p>1.6 Boom rotation of 270 degrees minimum with mechanical stops for safety. Stops must be welded into machined recesses to ensure non-movement. Pedestal stop must have a minimum of three (3) square inches and have a nylon contact with pivot stops and a minimum width of five (5) inches.</p> <p>1.7 Boom rotation shall be accomplished by a direct hydraulic swing drive through a slewing (bearing) ring &amp; planetary gearbox capable of producing 250,000 inch-pounds torque.</p>			
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1.8 Entire Boom Assembly shall be designed with a tensile strength to provide a safety factor of 3 to 1 at the rated load capacity.

1.9 Main Boom shall be constructed of (2) 4"x 8" High Strength Steel Tubing.

1.10 Tip Boom shall be constructed from a 5" x 7" High Strength Steel Tube.

1.11 Tip Boom shall have a 4' telescopic extension tip section constructed from 4"x 6" High Strength Steel Tube.

1.12 Main Boom shall be equipped with mechanical stops to prohibit hydraulic cylinders from bottoming out. Extend boom stops must be easily accessible and removable for service.

1.13 Boom pedestal to be mounted directly to the chassis frame rails. Mounting must include inside frame rail supports at the mounting points.

1.14 The entire boom must be serviceable down to the component level, e.g., every hydraulic hose, fluid tubes, bracket, pin, etc. Having to replace subassemblies in order to repair a component will not be acceptable.

1.15 Telescopic tip extension shall be equipped with replaceable nylon bearings on all 3 sides with roller on bottom. Bearings must be easily accessible for replacement and have "auto-hose-slack" take-up.

1.16 All boom connections requiring pins shall be equipped with replaceable bushings and heat-treated pins.

1.17 All operating functions shall be hydraulically controlled from the operator station located both on the left and right hand side of the loader.

1.18 Two stage tandem pump allows for multiple function control of the loader.

1.19 Operator controls shall be controlled by means of hydraulic joysticks located on both sides of the loader (two per side, three functions per joy stick).

1.20 A safety feature shall be provided to allow only one side of controls to function at a time. Joy sticks shall function only from one side at a time.

1.21 Joy sticks shall not require any lubrication thereby eliminating any frequent maintenance.

1.22 Outriggers controlled by individual levers located conveniently in the center of the operator's platform.

1.23 Body dumping is controlled by a single lever at the center of the operator's platform separate from any other control. Proper enclosures shall be provided to protect operator from hydraulic fluid and components. All controls shall be clearly identified as to function.

1.24 Main Boom and Tip Boom cylinders must incorporate integral holding valves. Externally mounted holding valves are not acceptable.

## **2.0 Trash Grapple\Bucket:**

2.1 Bucket shall have a 360 degree continuous rotating grapple with a replaceable hydraulic swivel. Swivel shall not be welded or be an integral part of the grapple.

2.2 Bucket is to be opened and closed by (2) hydraulic cylinders with a closing force\“bite” of 3,600 lbs.

2.3 Bucket is to be 4' long and capable of opening to 60 inches from lip to lip.

2.4 Bucket shall be fabricated with a bolt on replaceable H.S.H.C. steel cutting edge.

2.5 Bucket cylinders and hoses shall be enclosed by a removable steel cover.

## **3.0 Hydraulics:**

3.1 Reservoir shall be a minimum of 45 gallons. It shall have a dual level/oil temperature gauge on side of tank. An in-tank suction strainer is included.

3.2 Filter shall be a 10-micron, return line replaceable filter mounted on outside of reservoir.

<p>3.3 Cut-off valves are to be provided for both pressure and suction.</p> <p>3.4 Main boom, tip boom and outrigger hydraulic cylinders shall contain pilot operated check valves as an integral part of each cylinder to prevent boom movement in the event of hydraulic hose failure. Bolt on pilot operated check valves will not be permissible.</p> <p>3.5 All hoses shall be rated at 4,000-psi working pressure.</p> <p>3.6 Port tubing through the main boom shall be zinc plated steel tube.</p> <p>3.7 Control valves shall have a 20 GPM rating.</p> <p>3.8 Successful bidder must provide a computer printout at time of delivery showing particle testing of the hydraulic oil done just prior to the unit being shipped in order to illustrate cleanliness of Hydraulic System.</p> <p><b>4.0 Power Source:</b></p> <p>4.1 Unit to be mounted on any chassis that meets the manufactures recommended specification with a heavy – duty clutch style (Hot Shift) PTO and a heavy – duty bi-rotational Tandem hydraulic pump.</p> <p><b>5.0 Throttle Control:</b></p> <p>5.1 Unit to have an electric operated throttle control to maintain proper engine speed when loader is operated under load. Switch for throttle control to be mounted on operator’s platform for operator’s convenience.</p> <p>5.2 Throttle speed-up shall operate only when the transmission in the neutral position.</p>	
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LOADER SPECIFICATIONS	YES	NO	COMMENTS
<b>1.0 TRASH BODY</b>			
1.1 BODY FLOOR TO BE SINGLE SHEET OF 3/16 INCH AR450 STEEL PLATE TO RESIST DENTS. FLOOR TO BE 96 INCH WIDE AND 18 FT. LONG, CONTINUOUSLY WELDED TO THE SIDES AND HEADBOARD. MULTIPLE FLOOR PANELS WELDED TOGETHER ARE NOT ACCEPTABLE. INCLUDES 3/16 INCH X 10 INCH WIDE STEEL REINFORCEMENT CONTINUOUSLY WELDED BETWEEN FLOOR AND EACH BODY SIDE.			
1.2 BODY WALLS TO BE 1/8 INCH AR450 STEEL SHEET			

<p>TO RESIST DENTS AND REDUCE SIDE FLARE OUT. FRONT PORTION TO BE 46-1/2 INCH HIGH BY 96" LONG, ANGLING TO 64 INCH FOR REMAINDER OF BODY AND REAR DOORS. A SINGLE SIDE SHEET MUST BE CONNECTED WITHOUT AN OVERLAPPED JOINT OR BUTT JOINT. <u>NO 90 DEGREE ANGLES ON BOTTOM OF EXTERIOR BODY SIDES.</u> TOP RAIL TO BE A FORMED 3-1/4 INCH X 7 INCH 1/8 INCH AR450 STEEL PLATE TO RESIST DENTS AND REDUCE SIDE FLARE OUT.</p>			
<p><b>1.3</b> HEADBOARD TO BE 3/16 INCH AR450, 46-1/2 INCH HIGH, CONTINUOUSLY WELDED TO THE FLOOR AND BODY SIDES. TOP RAIL TO BE A FORMED 3 INCH X 5 INCH 1/8 INCH AR450.</p>			
<p><b>1.4</b> SIDE POSTS ARE NOT ACCEPTABLE; THE INTENT OF THIS SPECIFICATION IS TO REDUCE WEIGHT, HAVE A CLEANER APPEARANCE WITH A SMOOTH SIDE AND TO ALLOW THE HIGH TENSILE SIDE MATERIAL TO FLEX AND REDUCE DENTS.</p>			
<p><b>1.5</b> NO CROSS MEMBERS ON THE FLOOR WILL BE ACCEPTABLE. THE INTENT OF THIS SPECIFICATION IS TO REDUCE WEIGHT AND HAVE A CLEANER APPEARANCE. THE REAR CORNER POSTS ARE TO INCORPORATE A BEAM UNDER THE FLOOR THAT CONNECTS THE BASE OF THE TWO CORNER POSTS TO ADD RIGIDITY TO THE BACK OF THE BODY SO THE DOOR WILL NOT JAM WHEN THE BODY IS FULLY LOADED.</p>			
<p><b>1.6</b> LONGITUDINAL BEAMS TO BE 8 INCH STRUCTURAL CHANNEL WITH 3/16 INCH AR450 ALONG THE OUTER LENGTH OF THE BEAM.</p>			
<p><b>1.7</b> REAR DOORS TO BE FITTED ON THE REAR OF THE BODY WITH A PROVISION TO SWING COMPLETELY AROUND TO THE SIDE AND LATCH OPEN FOR DUMPING.</p> <p><b>1.8</b> EACH DOOR SHALL BE HINGED WITH (2) 1 INCH HINGE PINS. HINGES MUST BE WELDED TO BODY AND DOOR AND MUST CONTAIN EASILY ACCESSIBLE GREASE FITTINGS. DOOR LATCH WILL SECURE BOTH DOORS AT THE TOP AND BOTTOM.</p>			
<p><b>1.9</b> DOOR SKINS TO BE FABRICATED FROM 1/8 INCH AR450 STEEL SHEET AND MUST HAVE AN ALL AROUND OUTSIDE FRAME WITH BRACES IN THE CENTER OF THE DOOR.</p>			
<p><b>2.0 HYDRAULIC HOIST</b></p>			
<p><b>2.1</b> HOIST TO BE TWIN TELESCOPIC 5" MAIN BORE CYLINDERS MOUNTED OUTBOARD THE CHASSIS FRAME RAILS FOR GREATER STABILITY. LIFT CAPACITY IS 15 TONS AND THE DUMP ANGLE ACHIEVED IS 45</p>			

DEGREES			
<b>3.0 LIGHTS REFLECTORS, AND MUDFLAPS:</b>			
3.1 LIGHTS, REFLECTORS, AND MUD FLAPS MUST MEET FEDERAL STANDARDS. THERE IS TO BE AN ADDITIONAL SET OF BRAKE, STOP AND TURN LIGHTS MOUNTED ON THE UPPER REAR CORNER POSTS. CLEARANCE LIGHTS ARE TO BE GROMMET MOUNTED AND SHOCK RESISTANT. THERE IS ALSO A SET OF AMBER LED FLASHERS IN UPPER CORNER POSTS.			
<b>4.0 PAINT</b>			
4.1 PAINT OUTSIDE OF BODY WITH 1 COAT OF HIGH-GRADE PRIMER AND 2 COATS OF HIGH-GRADE ENAMEL. INSIDE OF BODY MUST RECEIVE 1 COAT OF HIGH-GRADE PRIMER AND 1 COAT OF HIGH-GRADE ENAMEL (MANUFACTURES STANDARD BLUE).			
<b>5.0 WARRANTY</b>			
5.1 THREE YEAR MAJOR STRUCTURAL AND ONE YEAR HYDRAULIC FOR <b>LOADER AND BODY</b>			
<b>6.0 MISCELLANEOUS</b>			
6.1 SAFETY BUMPER AND BODY PROP SHALL BE PROVIDED			

<b>SPECIFICATIONS</b>	<b>VENDORS RESPONSE, YES/NO- /COMMENTS</b>		
<b>1.0 BOOM:</b>	<b>YES</b>	<b>NO</b>	<b>EXCEPTIONS / COMMENTS</b>
1.1 SIDE DUMP TO BE CONSTRUCTED OF HIGH STRENGTH STEEL, PROVIDING A 3:1 SAFETY FACTOR. SIDE DUMP TO BE DESIGNED TO LIFT & DUMP 500LBS.			
1.2 SIDE DUMP CARRIAGE TO BE CONSTRUCTED USING A TRACK AND 3" STEEL ROLLER BEARINGS. EACH WITH A STATIC LOAD OF 2500LBS.			
1.3 SIDE DUMP BOOM CONSTRUCTED OF HIGH STRENGTH STEEL TUBING.			
1.4 SIDE DUMP HOPPER TO HAVE APPROXIMATELY 1 CUBIC YARD CAPACITY. HOPPER TO BE ATTACHED TO THE BOOM BY MEANS OF AN ADJUSTABLE ANGLE SHAFT.			
1.5 SIDE DUMP LIFT CYLINDER TO INCORPORATE INTEGRAL HOLDING VALVES. TO PREVENT THE BOOM FROM FALLING IN CASE OF HOSE RUPTURE. EXTERNALLY MOUNTED HOLDING VALVES ARE NOT ACCEPTABLE.			
1.6 CONTROLS ARE SIMI AUTOMATIC. MEANING ONLY ONE FUNCTION WILL WORK AT A TIME FOR SAFETY. THIS ATTACHMENT HAS A DEDICATED HYDRAULIC CONTROL VALVE.			

1.7 SIDE DUMP HAS GREASE-ABLE PIVOT POINTS FOR LONGER LIFE.			
1.8 SIDE DUMP STORES UNDER THE BODY. THIS ALLOWS THE BODY CAPACITY TO STAY THE SAME.			
1.9 SIDE DUMP CAN BE USED WITH A KBF-20H SERIES LOADER AND TKB-1824, TKB-1925, OR TKB-2030 BODY.			

**CHASSIS SPECIFICATIONS**

**VENDORS RESPONSE, Y/N - EXCEPTIONS**

<p><b>1.0 ENGINE:</b>  1.1 260 H.P. 6 CYLINDER DIESEL W/ 660LB/FT TORQUE. EXHAUST BRAKE WITH VARIABLE GEOMETRY TURBO</p> <p>1.2 180 AMP ALTERNATOR</p> <p>1.3 (2) 12 VOLT 2250 CCA BATTERIES</p> <p>1.4 POSITIVE AND NEGATIVE POST FOR JUMPSTART.  POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT</p> <p>1.5 18.7 CFM COMPRESSOR</p> <p>1.6 GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT.</p> <p>1.7 RH HORIZONTAL AFTER TREATMENT DEVICE. 13 GALLON DEF TANK IF REQUIRED.</p> <p>1.8 950 SQUARE INCH RADIATOR</p> <p><b>2.0 TRANSMISSION</b>  2.1 ALLISON 3000 RDS W/ PTO PROVISION AND PUSH BUTTON SHIFT CONTROL ON DASH</p> <p>2.2 INTERFACE WIRING AND BODY BUILDER CONNECTOR BACK OF CAB.</p> <p>2.3 ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR BACK OF CAB</p> <p>2.4 WATER TO OIL TRANSMISSION COOLER</p> <p>2.5 SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)</p> <p>2.6 ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR FIREWALL MOUNTED</p> <p>2.7 ENGINE REMOTE INTERFACE WITH PRESET FAST IDLE .</p>	
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2.8 ENGINE REMOTE INTERFACE CONNECTOR MOUNTED BACK OF CAB.

**3.0 FRONT AXLE**

3.1 12,000LB FRONT AXLE WITH SYNTHETIC 75W90 LUBE.

3.2 12,000LB TAPER LEAF SUSPENSION W/ SHOCK ABSORBERS

3.3 16.5" x 5" Q+ BRAKE SHOES W/ AUTO SLACK ADJUSTERS AND DUST SHIELDS

**4.0 REAR AXLE**

4.1 21,000LB REAR AXLE WITH SYNTHETIC 75W90 LUBE.

4.2 23,000LB FLAT-LEAF SUSPENSION W/ HELPER AND RADIUS ROD

4.3 17T MAIN DRIVELINE OR EQUIVALENT

4.4 AXLE RATIO TO BE BETWEEN 5.14 AND 6.86 TO ACHIEVE ROAD SPEED OF 68 MPH.

4.4 16.5" x 7" Q+ BRAKE SHOES W/ AUTO SLACK ADJUSTERS AND DUST SHIELDS

**5.0 BRAKE SYSTEM**

5.1 ANTI-LOCK AIR BRAKES

5.2 BENDIX AD-9 AIR DRYER WITH PULL CABLES ON ALL RESERVOIRS.

**6.0 FRAME AND WHEELBASE**

6.1 254" WHEELBASE OR EQUIVALENT FOR BODY SPECIFIED. 186" CA, 96" AF.

6.2 FRONT TOW HOOKS

6.3 11/32" x 3-1/2" x 10-15/16" STEEL FRAME OR EQUIVALENT WITH 120KSI

**7.0 FUEL TANKS & EQUIPMENT**

7.1 50 GALLON ALUMINUM FUEL TANK

7.2 FUEL WATER SEPARATOR WITH PRIMER

**8.0 CAB**

8.1 HEAVY DUTY NON-AUTOMOTIVE CAB W CHROME GRILL.

8.2 BUG SCREEN, LH/RH GRAB HANDLES,

8.3 AIR CAB MOUNTS

8.3 DUAL WEST COAST MIRRORS, LH & RH 8"

CONVEX MIRRORS, DOOR MOUNTED MIRRORS,  
LH AND RH 8 INCH MIRRORS MOUNTED UNDER  
PRIMARY MIRRORS

8.4 RH 8 INCH STAINLESS STEEL FENDER  
MOUNTED CONVEX MIRROR WITH TRIPOD  
BRACKETS.

8.5 SINGLE AIR HORN

8.6 HEATER, DEFROSTER, AIR CONDITIONER

8.7 HIGH BACK AIR RIDE DRIVER BUCKET SEAT

8.8 VINYL SEAT COVERS FOR DRIVER AND  
PASSENGER

8.9 CRUISE CONTROL, TACHOMETER, BACKUP  
ALARM, OIL PRESSURE GAUGE

8.10 AM/FM RADIO

8.11 SOLID STATE CIRCUIT PROTECTION &  
FUSES.

8.12 2 ½LB FIRE EXTINGUISHER AND  
TRIANGULAR REFLECTORS

8.13 TWO CUP HOLDERS IN DASH

8.14 ELECTRIC WINDSHIELD WIPERS WITH  
DELAY

8.15 LEFT HAND PRIMARY STEERING WITH RH  
STANDUP SECONDARY STEERING LOCATION WITH  
DUAL INSTRUMENT CLUSTER.

#### **9.0 TIRES AND WHEELS**

9.1 FRONT TIRES: 11R/22.5 14 PLY WITH  
HIGHWAY TREAD – 10 HUB PILOT DISC WHEELS

9.2 REAR TIRES: 11R/22.5 14 PLY WITH  
TRACTION TREAD –10 HUB PILOT DISC WHEELS

#### **GENERAL CHASSIS REQUIREMENTS**

- \* TRUCK TO BE WHITE IN COLOR.
- \* MUST PROVIDE PARTS/WARRANTY/SERVICE  
WITHIN 120 MILE RADIUS.
- \* MUST PROVIDE PARTS AND SERVICE MANUALS  
WITH UNIT.
- \* MUST PROVIDE STATE AND DOT INSPECTION.
- \* MUST PROVIDE ON-SITE DRIVER TRAINING AT  
TIME OF DELIVERY.
- \* MUST PROVIDE TOWING/ROADSIDE SERVICE  
WARRANTY FOR 1YEAR.