### **NEWTON COUNTY**

20 CUBIC YARD REAR LOADING REFUSE COLLECTION TRUCK



## BIDDER SHALL COMPLETE BY CHECKING THE FOLLOWING. IF NOT COMPLIANT, STATE SPECIFICALLY ITEM BEING OFFERED.

The Newton County Board of Supervisors intends to use the Reverse Auction process to purchase one (1) or more 44,000 GVW Refuse Truck(s). This contract shall be valid until January 1, 2026. Purchase price shall be valid for two calendar year(s) and after the second year the awarding vendor may apply up to three (3) percent inflation price increase. The following are the suggested minimum specifications for one or more 2022 model or newer 44,000 GVW Refuse Truck(s). All bids must be equal in performance and quality pursuant to the bid specifications below, which are not intended to exclude any manufacturer's standard deviation. Any reference to manufacturer's make or series of equipment stated in the following specifications is intended only to establish an acceptable standard and is not intended to limit the bidding. Newton county is acting under the authority of Section 31-7-13, Miss. Code of 1972 Amended, and reserves the right to reject any and all bids.

	YES NO OFFERED
ENGINE & EQUIPMENT	
New & Unused 2022	
Conventional Cab	
ENGINE & EQUIPMENT	
300 HP Engine or greater with turbo exhaust brake	
860 lb/ft Torque or greater	
9 Liter Engine liter displacement or greater (no exceptions)	
Oil cooler	
Air Compressor 18.7 CFM or greater	
Air Cleaner: Donaldson Dry Type	
2-Speed fan hub	
1000 sq/in Cooling module or greater	
Radiator bug screen on back side of hood grill	

## YES NO OFFERED

Single vertical SOC tailpipe, RH under DPF/SCR verticle right side under cab	<b></b>
2 spare switches wired to power	
Fleetguard filter/water separator	<b></b>
Engine block heater (120 volt minimum)	o o
160 AMP brush type Alternator	<b></b>
Three (3) batteries – 2100-2190 CCA dual purpose	o o
12-Volt light system with circuit protection	<b>-</b>
12-Volt Starter	<b>0 0</b> <u></u>
3 Battery disconnect switch	
Body builder harness to end of frame	<b>-</b>
TRANSMISSION & EQUIPMENT	
Allison 3500RDS series 6-speed automatic transmission	
Heat exchanger	
Oil level sensor	
Transmission PTO Rear Support Spring(s)	
3 Standard duty drivelines, 2 centerbearing	<b>-</b>
Torque converter	o o
Park brake auto neutral	o o
FRONT AXLE & EQUIPMENT	
14k or greater front axle, Dana Spicer E-10021L or equal Meritor Brand	<b></b>
14,600 lb. Air brake package	
16 ½" x 5" Cast drum brakes	
Aluminum 10-bolt hub pilot LMS hubs with hub caps	<b>-</b>
Front oil seals	
Front slack adjusters	
14.6 lb. or greater Taperleaf front springs	
Front shock absorbers	
Single gear power steering	
REAR AXLE & EQUIPMENT	
30,000 lb. Rear axle, Dana S23-170 or equal	<b></b>
Rear axle ratio: 6.14	
30,000 lb. Air brake package	<b>-</b>

## YES NO OFFERED

16 ½" x 7" Cast drum brakes	
Iron 10-bolt hub pilot hubs	
Rear slack adjusters	
Single spring brake 3036	
Bendix 4S/4M Anti-lock brake system	
31,000 lb. Multileaf suspension, REYCO 79KB or equal	
TIRES & WHEELS	
Front tires: 315/80R22.5 20PR	<b>–</b> – – – – – – – – – – – – – – – – – –
Rear tires: 315/80R22.5 20PR	<b>-</b>
Front wheels: Steel Wheels	<b>-</b>
Rear wheels: Steel wheels	
FRAME & EQUIPMENT	
10 3/4" x 3/8" Steel frame	
2,132,000RBM or greater	
120,000 PSI Yield steel	
Section modulus: 17.80 in <sup>3</sup>	
Aerodynamic bumper, painted	
Two removable front tow hooks	
FUEL TANK(S) & EQUIPMENT	
75 Gallon minimum or greater aluminum fuel tank	
11 Gallon DEF tank; LH mount	
CAB & EQUIPMENT	
Fully-Hucked bolted Aluminum or equivalent in Steel Cab	
Aluminum Bulkhead doors or steel equivalent	
Heater with integral defroster and A/C	
Adjustable telescoping tilt steering column (no exceptions)	
Dash mounted air filter restriction gauge	
Transmission oil temperature gauge	
No dog house protruding inside cab	
Tachometer	
Fuel gauge	
Engine coolant temperature gauge	
Engine oil pressure gauge	

Voltmeter	o o
Engine hour meter	o o
Primary and secondary air restriction gauges	
DEF fluid level gauge	o o
Air driver seat	<b></b>
Two-man passenger seat	
AM/FM/WB/USB/BT Radio Must have Bluetooth	o o
Cab access grab handles, LH & RH	<b></b>
Daylight doors with RH peeper window	
Air horn; Single under cab	o o
Heated mirrors	o o
Manual LH and electric RH door window	<b></b>
Dual halogen headlights	<b></b>
Exterior Stainless steel sunvisor	
Fender mounted turn signal lights	<b></b>
Circuit breakers replacing all but 5-amp fuses	o o
Bendix AD-IS air dryer, heated; mounted LH rail back of cab	o o
Moisture drain valve with pull cable drain	o o
PAINT	
Color: white	
Additional Demoinements.	

YES NO OFFERED

#### **Additional Requirements:**

Delivery Date: 60 Day Delivery (no exceptions) 3/100 Extended Base Vehicle Warranty 3/100 Extended Engine & After Treatment

3yr Buy Back \$\_\_\_\_

#### **SPECIFICATION**

#### Truck-mounted, 20 cubic yard rear loader body.

The unit will be used in collection and loading of residential or commercial refuse. This specification describes a hydraulically actuated packer body of the rear loading type with the following minimum specifications necessary to perform the work assigned.

Unit will be Manufactured in an ISO 9001:2000 CERTIFIED FACILITY. The body shall conform to the latest ANSI Z245 specification as well as the Federal Motor Vehicle Safety Standard FMVSS-108 at the time of manufacture. All proposals include delivery, training of operators and service personnel.

#### Yes/No Offered

Offered 1. The minimum capacity of the body shall be 20 cubic yards exclusive of the hopper. 2. The minimum capacity of the hopper shall be 3.61 cubic vards without the use of a hopper loading sill extension. 3. The body shall be designed to allow high density compaction of up to 1000 lbs. per cubic yard of household refuse. 4. The unit shall be manufactured in an ISO 9001:2000 certified facility. **BODY DIMENSIONS** 1. The maximum overall width shall be 96 inches. 2. The maximum overall length shall be 250 inches. 3. The maximum height above the chassis frame shall be 98" inches. 4. The inside width of the body shall be 85 inches at the widest point. 5. The inside height of the body shall be 84 inches at the highest point. 6. The minimum weight of the body and the tailgate (less special options) shall be 12,600 lbs.

#### **BODY CONSTRUCTION**

- The body shall have a smooth floor without a trough. No cylinders, valves or other hydraulic components shall be exposed to refuse packed to the body. Floors with trough or depression are not acceptable.
- The body floor, sides and roof shall be designed and constructed to withstand maximum imposed force residential refuse without structural damage or excessive wear.
- The body sides shall be fabricated from 10 gauge 80,000 psi yield steel and be of a curved one-piece design.
- 4. The body roof shall be fabricated from 10 gauge 80,000 psi yield steel and be of a curved one-piece design.
- A 20" x 26" body side door shall be located on the driver's side. The door shall be held shut by a spring-loaded latch.
- 6. The body floor shall be fabricated from a single sheet of 7 gauge hi-tensile steel, with no depression or trough.
- 7. The body longitudinal shall be 8" tall structural channel.
- 8. The floor cross members shall be tapered from the long sill outboard to the body side sheet.
- The floor cross members shall be fabricated from 7 gauge hi-tensile steel.

TAILGATE DIMENSIONS

- The minimum hopper opening shall be 80" wide and 56" high to permit unobstructed loading of the tailgate hopper.
- 2. The top of the loading sill shall be equal height to the top of chassis frame to facilitate easy loading.
- 3. The overall height above the chassis frame with tailgate raised shall be 167 inches.
- 4. The length of the tailgate shall be 75"

#### TAILGATE CONSTRUCTION

- The lower tailgate sides shall be fabricated from ASTM A-514 steel w/ minimum hardness of 321 BHN.
- The hopper floor and chute shall be fabricated from 1/4" ASTM A-514 steel w/ minimum hardness of 321 BHN.
- 3. The tailgate sides shall be reinforced with hi-tensile steel channels interlaced and fully welded to the side sheets.
- 4. The hopper and chute floor shall be reinforced with hi-tensile steel channels.
- 5. The tailgate shall be secured to the body with tailgate lock bars made of ASTM A-514 steel. The tailgate locks shall operate automatically when the tailgate is raised or lowered.
- The tailgate seal shall extend a minimum 24 inches up the body side.
- 7. Two grab handles shall be located on each side of the tailgate.
- The rear steps shall be fabricated from open grip material with a minimum standing surface of 330 square inches per step. The steps shall comply with A.N.S.I. standards.

Steps shall be of a bolt-on design.

#### PACKING MECHANISM

- The packing cycle shall be controlled by a two-lever control that allows the operator to start, stop and reverse the direction of any function at any point during the packing cycle.
- 2. The tailgate control valve shall be located within the tailgate. It shall be a sectional valve.
- 3. The packing mechanism shall consist of two primary components: the slide and the packer (sweep) blade.
  - A. The packing mechanism shall be mounted on four wear shoe assemblies utilizing UHMW poly wear shoes. The shoes shall be replaceable without removing the slide assembly from the tailgate.

The packer and slide shall be hinged by two 3" diameter alloy steel pins.
These pins shall also support the (2) lower wear shoe assemblies.

- B. The slide face shall be constructed from 3/16" ASTM A-514 steel w/ minimum hardness of 321 BHN.
- C. The packer blade shall be mounted to, and pivot on, the slide. The packer blade shall be fabricated from hi-tensile steel plate, of varying thickness from 10 ga. to 1/2"
- D. The packer shall have replaceable heat treated bushings in the pivots.

The face sheet shall be 3/16" ASTM A-514 steel w/ minimum hardness of 321 BHN.

4. The packing mechanism shall be

powered by two 4 1/2" bore cushioned hydraulic cylinders.

- 5. The slide mechanism shall be powered by two 5" Bore cushioned hydraulic cylinders
- The slide and packer cylinders shall have hardened, chrome plated rods.
   Each cylinder shall have replaceable heat treated bushings.
- 7. The packing blades shall operate in a minimum 20 second cycle time with a minimum 3 second reload time.
- 8. The compaction cycle shall interrupt above the hopper sill.
- Material in the hopper shall be compacted between the packing mechanism and the ejector panel. The ejector panel shall hold pressure against the compacted material and will automatically drift forward by a hydraulic load control valve without operator assistance.
- The packer blade (sweep) assembly shall be protected by a secondary relief valve that is integral to the tailgatemounted control valve.

#### **EJECTION SYSTEM**

- The load shall be ejected by a double acting, telescopic hydraulic cylinder that shall extend and retract the ejector panel the full length of the body without the use of clamp bars or related hardware.
- The ejector cylinder shall have replaceable heat treated bushings.
   The cylinder shall have the following dimensions:

Body size Bore Stroke Stages 20 cu. yd. 5.5" 91" 2

3. The ejector panel shall have a

- 10 gauge hi-tensile steel face sheet that is reinforced by structural steel tubing and formed channels of high tensile steel.
- 4. The ejector panel shall be mounted on 8 high-density polyethylene wear shoes that shall be replaceable without removing the ejector panel from the body. Metallic shoes are not acceptable.
- 5. The ejector panel shall be guided in the body by two guide tracks located on the body sides 4" above the body floor. The tracks shall be 5 3/4" deep, fabricated from hi-tensile steel and fully welded to the body sides.
- The ejector cylinder shall be mounted angularly to the body floor and not require a trough or depression in the floor.

#### **CONTROLS**

- 1. The ejector and tailgate lift controls shall be mounted at the left front of the body.
- Ejector and tailgate controls shall be mounted directly to the valve spool.
- 3. A throttle advance switch shall be be located convenient to the ejector and tailgate lift controls.
- 4. The tailgate controls shall be located at the right rear of the tailgate. The two-lever design shall have positive control of movement of the packing mechanism at all times. The tailgate controls shall comply with the applicable A.N.S.I. regulations.
- 5. An automatic throttle advance device shall be incorporated with the tailgate controls.

#### HYDRAULIC SYSTEM

- The hydraulic pump shall be a fixed displacement rated at no less than 2500 psi working pressure and have sufficient capacity to equal 35-38 GPM flow at a reasonable engine RPM
- 2. The hydraulic pump shall be a direct mount to a transmission-driven clutch-activated hot shift PTO or driven by the engine crankshaft.
- For extended life of all hydraulic components the maximum operating pressure shall not exceed 2500 PSI.
- 4. The hydraulic system shall incorporate an adjustable relief in the body valve.
- Hydraulic hoses and tubes shall be secured by clamps as required to prevent damage from abrasion and vibration. Hydraulic hoses and tubes shall use S.A.E. O-ring boss and JIC 37 degree flare ends for zero leaks.
- Hydraulic hoses shall comply with the applicable S.A.E. standards for the designed specifications.
- Hydraulic hoses are to have a 4:1 burst to working pressure safety factor.
- 8. The hydraulic oil reservoir shall have a minimum capacity of 50 gallons. The reservoir shall be equipped with filler, breather cap, sight glass, clean out cover, 100 mesh suction filter, magnetic tank drain plug and gate valve at the suction outlet. The hydraulic reservoir shall not be a structural member of the body or the mount for the ejector cylinder.
- 9. A 10 micron Inline Return line

filter shall be located on the hydraulic tank and be equipped with a condition indicator.

- A suction screen filter of 100 mesh (141 micron) shall strain all the oil leaving the tank. Suction filter shall be equipped with a 5 P.S.I. bypass valve.
- All hydraulic valves shall be sectional in order to allow replacement of defective sections without replacement of the entire valve.
- 12. All cylinders and valves shall have SAE O-ring boss ports.
- 13. Hydraulic system shall met an ISO cleanliness standard of 20/18/13
- 14. Manufacturer shall provide printed ISO hydraulic cleanliness record.

#### HYDRAULIC CYLINDERS

- All cylinders shall have a working pressure rating of 3000 psi.
- 2. The packer and slide cylinders shall have hard chrome plated rods.
- The packer and slide cylinders shall carry a minimum one year warranty.
- Tailgate cylinders shall have hardened chrome plated cylinder rods, and be equipped with restrictors to limit the speed of raising and lowering of the tailgate.
- Telescopic cylinders shall have chrome plated cylinder sleeves and plungers.
- 8. All cylinders are to operate without

direct contact with the compacted load.

#### **ELECTRICAL**

- All electrical wiring shall be color coded and be protected by loom.
- 2. Electrical harnesses shall be connected with weatherproof automotive-grade electrical connectors.
- Electrical wires shall be stranded copper type with a SXL covering to remain flexible and resist to deterioration.
- 4. Electrical wires shall be color coded and numbered for easy identification.
- 5. Body electrical system shall be protected with its own fuse block.
- 6. All fuses shall be ATO type.
- All limit switches shall be water proof to prevent damage from the elements and pressure washing.
- All lighting shall comply with F.M.V.S.S. #108, with an additional set of two stop, tail and turn lights mounted above the hopper on a light bar.
- Clearance, backup, stop and directional lights shall be rubber grommet mounted with sealed light housings, lexan lenses, vibration resistant filaments, and unitize sealed quick change connections.
- A 112 Db backup alarm conforming to current standards must be provided.
   The alarm must also sound when the tailgate is open.
- Conspicuity tape shall be applied per ANSI Z245 requirements.
- 12. An Emergency PTO Stop will be located on the rear of the body.

# **PAINTING** 1. All burrs and rough areas are to be ground smooth and all welds cleaned to remove slag. 2. Prior to application of any coating, all surfaces shall be thoroughly cleaned and conditioned with a phosphate solution. 3. The body shall then be coated with two (2) coats of a self etching epoxy primer. 4. Two finish coats of polyurethane Enamel shall be applied to produce a high gloss finish. Warranty 1. One year warranty on the entire unit. 2. Bidder shall provide "On-Site" warranty service. 3. 2 year Hydraulic Cylinder Warranty. 4. Manufacturer will provide complete set of operator/service/parts Manuals on CD and paper copy. **ADDITIONAL REQUIREMENTS** 1. A rear vision camera system shall be provided and include LCD flat screen monitor in cab. 2. Dual Amber LED Strobes body mounted front and rear. 3. Smart light system.