



## *City of Gunnison*

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### **The City of Gunnison is soliciting bids for a new 2017 Refuse Truck and Packer**

The City of Gunnison is accepting bids for a refuse truck cab and chassis and a truck mounted, hydraulic refuse packer. All specifications shall be equal to or exceed specifications required by the City. Bids for diesel and CNG engine options will be considered. A 2001 Mac LE613 Impac with 30 cubic yard packer will be considered as a trade in and can be viewed at 1100 W. Virginia Avenue, Gunnison, CO. For further information, contact Pat MacIntosh at (970) 641-8328 or [pmacintosh@gunnisonco.gov](mailto:pmacintosh@gunnisonco.gov).

**Please submit sealed bids, clearly marked 2017 Refuse Truck Bid** on the outside of the envelope, to the City of Gunnison, Public Works Department, 1100 W. Virginia Avenue, Gunnison, CO 81230 by Wednesday November 2, 2016 at 1:30 PM. No late bids will be accepted. All bids will be publicly opened and read aloud on November 2, 2016 at 2:00 PM at the above location. The City of Gunnison reserves the right to reject any or all bids received in response to this solicitation.



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### **Minimum Specifications for Refuse Truck and Packer**

#### **OPTION 1:**

##### **Truck Cab and Chassis Minimum Specifications:**

370 HP diesel engine

Allison 3000 series 6 speed transmission

GVWR 66,000

Chassis to meet or exceed International 7500 series specifications.

##### **Packer Minimum Specifications**

Must meet or exceed G – S Products Model CLE-8133E.

Must be able to side load dumpsters and 38, 68 and 98 gallon refuse containers.

Dumpster lift controls must be operated from left hand driver side only.

Camera system – 2 camera minimum, hopper and back up view.

Strobe light package – 1 rear strobe light.

Trade in quote for 2001 Mac LE613 Impac 30 cubic yard will be considered.

#### **OPTION 2:**

Compressed natural gas (CNG) option that will meet or exceed diesel engine minimum specifications as outlined above.

**Prepared For:**  
CITY OF GUNNISON  
PAT MACINTOSH  
1100 W VIRGINIA  
GUNNISON, CO 81230-  
(970)641 - 8020  
Reference ID: N/A

**Presented By:**  
MCCANDLESS TRUCK CENTER  
Gary Rider  
2332 I-70 FRONTAGE RD  
GRAND JCT CO 81505 -  
(970)243-7771

Thank you for the opportunity to provide you with the following quotation on a new International truck. I am sure the following detailed specification will meet your operational requirements, and I look forward to serving your business needs.

**Model Profile**  
**2017 7500 SBA 6X4 (SF637)**

<b>APPLICATION:</b>	Side-Loader, automatic
<b>MISSION:</b>	Requested GVWR: 56000. Calc. GVWR: 58000 Calc. Start / Grade Ability: 19.96% / 2.59% @ 55 MPH Calc. Geared Speed: 78.2 MPH
<b>DIMENSION:</b>	Wheelbase: 254.00, CA: 186.90, Axle to Frame: 67.00
<b>ENGINE, DIESEL:</b>	{Navistar N10} EPA 2010, SCR, 370 HP @ 2000 RPM, 1250 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 370 Peak HP (Max)
<b>TRANSMISSION, AUTOMATIC:</b>	{Allison 3000_RDS_P} 5th Generation Controls; Close Ratio, 6-Speed, With Double Overdrive; Refuse/Mixer; Includes Oil Level Sensor With PTO Provision, Less Retarder, With 62,000-lb GVW Max.
<b>CLUTCH:</b>	Omit Item (Clutch & Control)
<b>AXLE, FRONT NON-DRIVING:</b>	{Meritor MFS-18-133A} Wide Track, I-Beam Type, 18,000-lb Capacity
<b>AXLE, REAR, TANDEM:</b>	{Meritor MT-40-14X-5DER-P} Single Reduction, 0.500"(12.7mm) Wall Housing Thickness, 40,000-lb Capacity, R Wheel Ends, With Lube Pump, Driver Controlled Locking Differential in Rear-Rear Axle Gear Ratio: 5.29
<b>CAB:</b>	Conventional
<b>TIRE, FRONT:</b>	(2) 315/80R22.5 Load Range L HSC1 (CONTINENTAL), 484 rev/mile, 68 MPH, All-Position
<b>TIRE, REAR:</b>	(8) 11R22.5 Load Range H HDR2 (CONTINENTAL), 491 rev/mile, 75 MPH, Drive
<b>SUSPENSION, REAR, TANDEM:</b>	{Hendrickson HMX-400-52} Walking Beam Type 52" Axle Spacing; 40,000-lb Capacity, With Rubber End Bushings, Transverse Torque Rods, Less Shock Absorbers
<b>FRAME REINFORCEMENT:</b>	Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892" x 0.312"; (274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL
<b>PAINT:</b>	Cab schematic 100GN Location 1: 9219, Winter White (Std) Chassis schematic N/A

<u>Code</u>	<u>Description</u>
SF63700	Base Chassis, Model 7500 SBA 6X4 with 254.00 Wheelbase, 186.90 CA, and 67.00 Axle to Frame.
1CBU	FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.125" x 3.580" x 0.312" (257.2mm x 90.9mm x 8.0mm); 480.0" (12192) Maximum OAL
1GBP	FRAME REINFORCEMENT Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892" x 0.312"; (274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL
1LLA	BUMPER, FRONT Steel, Swept Back  <u>Includes</u> : BUMPER, FRONT Powder Coated Gray (Argent) Color
1WGY	WHEELBASE RANGE 221" (560cm) Through and Including 262" (665cm)
2ARZ	AXLE, FRONT NON-DRIVING {Meritor MFS-18-133A} Wide Track, I-Beam Type, 18,000-lb Capacity  <u>Notes</u> : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
3ADG	SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 18,000-lb Capacity; With Shock Absorbers  <u>Includes</u> : SPRING PINS Rubber Bushings, Maintenance-Free  <u>Notes</u> : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications  <u>Includes</u> : BRAKE LINES Color and Size Coded Nylon : DRAIN VALVE Twist-Type : GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster : PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel : PARKING BRAKE VALVE For Truck : QUICK RELEASE VALVE On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4 : SLACK ADJUSTERS, FRONT Automatic : SLACK ADJUSTERS, REAR Automatic : SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4  <u>Notes</u> : Rear Axle is Limited to 46,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Standard Rear Air Cam Brakes Regardless of Axle /Suspension Ordered.
4193	BRAKES, FRONT, AIR CAM 16.5" x 6", Includes 24 SqIn Long Stroke Brake Chambers  <u>Notes</u> : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
4732	DRAIN VALVE {Berg} Manual; With Pull Chain, for Air Tank  <u>Includes</u> : DRAIN VALVE Mounted in Wet Tank
4AZA	AIR BRAKE ABS {Bendix AntiLock Brake System} Full Vehicle Wheel Control System (4-Channel)
4EBS	AIR DRYER {Bendix AD-9} With Heater  <u>Includes</u> : AIR DRYER LOCATION Inside Left Rail, Back of Cab

<u>Code</u>	<u>Description</u>
4EXU	BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 Spring Brake
4EXV	BRAKE CHAMBERS, FRONT AXLE {Bendix} 24 SqIn
4NDB	BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0"; Includes 30/30 Sq.In. Long Stroke Brake Chamber and Spring Actuated Parking Brake
	<u>Notes</u>
	: The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.
4SBC	AIR COMPRESSOR {Bendix Tu-Flo 550} 13.2 CFM Capacity
4WBX	DUST SHIELDS, FRONT BRAKE for Air Brakes
4WDM	DUST SHIELDS, REAR BRAKE for Air Brakes
5708	STEERING COLUMN Tilting
5CAL	STEERING WHEEL 2-Spoke, 18" Dia., Black
5PTB	STEERING GEAR (2) {Sheppard M100/M80} Dual Power
7BJY	EXHAUST SYSTEM Inline, Horizontal Aftertreatment Device, Frame Mounted Right Side, Includes Short Horizontal Tail Pipe
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment
	<u>Includes</u>
	: DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab
	: FUSES, ELECTRICAL SAE Blade-Type
	: HAZARD SWITCH Push On/Push Off, Located on Top of Steering Column Cover
	: HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever
	: HEADLIGHTS (2) Sealed Beam, Round, with Chrome Plated Bezels
	: JUMP START STUD Located on Positive Terminal of Outermost Battery
	: PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light
	: STARTER SWITCH Electric, Key Operated
	: STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector
	: TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature
	: WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever
	: WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted
	: WIRING, CHASSIS Color Coded and Continuously Numbered
8718	POWER SOURCE Cigar Type Receptacle without Plug and Cord
8GXD	ALTERNATOR {Leece-Neville AVI160P2013} Brush Type; 12 Volt 160 Amp. Capacity, Pad Mount, With Remote Sense
8HAB	BODY BUILDER WIRING Back of Standard Cab at Left Frame or Under Extended or Crew Cab at Left Frame; Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
8MKL	BATTERY SYSTEM {International} Maintenance-Free, (3) 12-Volt 1950CCA Total
8RGA	2-WAY RADIO Wiring Effects; Wiring With 20 Amp Fuse Protection, Includes Ignition Wire With 5 Amp Fuse, Wire Ends Heat Shrink and Routed to Center of Header Console in Cab
8RMA	RADIO AM/FM/WB/Clock/Bluetooth/USB Input/3MM Auxiliary Input, MP3, Apple Device Play & Control, Bluetooth for Phone & Music, with Multiple Speakers
8VAY	HORN, ELECTRIC Disc Style

<u>Code</u>	<u>Description</u>
8VUL	BATTERY BOX Steel With Plastic Cover, 18" Wide, 2, 3, or 4 Battery Capacity, Mounted Left Side Back of Cab
8WGL	WINDSHIELD WIPER SPD CONTROL Force Wipers to Slowest Intermittent Speed When Park Brake Set and Wipers Left on for a Predetermined Time
8WPH	CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade
8WPZ	TEST EXTERIOR LIGHTS Pre-Trip Inspection will Cycle all Exterior Lamps Except Back-up Lights
8WRB	HEADLIGHTS ON WWIPERS Headlights Will Automatically Turn on if Windshield Wipers are turned on
8WSM	SWITCH, BODY CIRCUITS, MID for Bodybuilder, With 6 Switches in Instrument Panel; One Power Module With 6 Channel, 20 Amp Max. Per Channel and 80 Amp Max Output, Switches Control the Power Module Through Multiplex Wiring, Mounted Battery Box Back of Cab
8WTK	STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt; less Thermal Over-Crank Protection
8WWJ	INDICATOR, LOW COOLANT LEVEL With Audible Alarm
8WXD	ALARM, PARKING BRAKE Electric Horn Sounds in Repetitive Manner When Vehicle Park Brake is "NOT" Set, With Ignition "OFF" and any Door Opened
8XAH	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses
8XGT	TURN SIGNALS, FRONT Includes LED Side Turn Lights Mounted on Fender
9HAN	INSULATION, UNDER HOOD for Sound Abatement
9HBM	GRILLE Stationary, Chrome
9HBN	INSULATION, SPLASH PANELS for Sound Abatement
9WAC	BUG SCREEN Front End; Mounted Behind Grille
9WBC	FRONT END Tilting, Fiberglass, With Three Piece Construction; for 2007 & 2010 Emissions
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100
	<u>Includes</u> : PAINT SCHEMATIC ID LETTERS "GN"
10761	PAINT TYPE Base Coat/Clear Coat, 1-2 Tone
10AAX	OVER THE AIR PROGRAMMING
10UAC	VEHICLE REGISTRATION IDENTITY ID for the State of California
10WCY	SAFETY TRIANGLES
10WJH	PROMOTIONAL PACKAGE Government and Municipal Silver Package; Two Year Limited Subscription of On-Command Service Information (Formerly Fleet ISIS), and On-Command Parts Information (Formerly Fleet Parts Catalog), Requires Specific Feature Combinations
11001	CLUTCH Omit Item (Clutch & Control)
12703	ANTI-FREEZE Red, Extended Life Coolant; To -40 Degrees F/ -40 Degrees C, Freeze Protection
12959	BLOCK HEATER, ENGINE {Phillips} 120V/1250W
	<u>Includes</u> : BLOCK HEATER SOCKET Receptacle Type; Mounted below Drivers Door
12NWy	ENGINE, DIESEL {Navistar N10} EPA 2010, SCR, 370 HP @ 2000 RPM, 1250 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 370 Peak HP (Max)

<u>Code</u>	<u>Description</u>
12THZ	FAN DRIVE {Horton Drivemaster Polar Extreme} Direct Drive Type, Two Speed, With Residual Torque Device for Disengaged Fan Speed  <u>Includes</u> : FAN Nylon
12UPA	FEDERAL EMISSIONS {Navistar N9 & N10} EPA, OBD and GHG Certified for Calendar Year 2016
12UWY	RADIATOR Cross Flow, Series System; 1228 SqIn Aluminum Radiator Core and 1167 SqIn Charge Air Cooler  <u>Includes</u> : DEAERATION SYSTEM with Surge Tank : HOSE CLAMPS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps : RADIATOR HOSES Premium, Rubber
12VBC	AIR CLEANER Single Element  <u>Includes</u> : GAUGE, AIR CLEANER RESTRICTION Air Cleaner Mounted
12VXT	THROTTLE, HAND CONTROL Engine Speed Control; Electronic, Stationary, Variable Speed; Mounted on Steering Wheel
12VZA	ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls; With Ignition Switch Control for MaxxFace and Navistar post 2007 Emissions Electronic Engines
12WBR	FAN OVERRIDE Manual; With Electric Switch on Instrument Panel, (Fan On With Switch On)
12WZJ	EMISSION COMPLIANCE Low NOx Idle Engine, Complies with California Clean Air Regulations; Includes "Certified Clean Idle" Decal located on Driver Door
13AAZ	AUTOMATIC NEUTRAL Allison WT, 3000 & 4000 Series Transmission Shifts to Neutral When Parking Brake is Engaged
13AVS	TRANSMISSION, AUTOMATIC {Allison 3000_RDS_P} 5th Generation Controls; Close Ratio, 6-Speed, With Double Overdrive; Refuse/Mixer; Includes Oil Level Sensor With PTO Provision, Less Retarder, With 62,000-lb GVW Max.
13WAW	OIL COOLER, AUTO TRANSMISSION {Modine} Water to Oil Type
13WBL	TRANSMISSION SHIFT CONTROL {Allison} Push-Button Type; for Allison 3000 & 4000 Series Transmission
13WLP	TRANSMISSION OIL Synthetic; 29 thru 42 Pints
13WUK	ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); Side Loaders
13WYU	SHIFT CONTROL PARAMETERS Allison 3000 or 4000 Series Transmissions, 5th Generation Controls, Performance Programming
13XAN	PTO LOCATION No PTO
14GVK	AXLE, REAR, TANDEM {Meritor MT-40-14X-5DER-P} Single Reduction, 0.500"(12.7mm) Wall Housing Thickness, 40,000-lb Capacity, R Wheel Ends, With Lube Pump, Driver Controlled Locking Differential in Rear-Rear Axle . Gear Ratio: 5.29
14UMB	SUSPENSION, REAR, TANDEM {Hendrickson HMX-400-52} Walking Beam Type 52" Axle Spacing; 40,000-lb Capacity, With Rubber End Bushings, Transverse Torque Rods, Less Shock Absorbers  <u>Includes</u> : CROSSMEMBER, SUSPENSION Stamped Steel Double Dogbone  <u>Notes</u> : The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.

<u>Code</u>	<u>Description</u>
15SGG	FUEL TANK Top Draw; D-Style, Non-Polished Aluminum, 19" Deep, 70 U.S. Gal., 265 L Capacity, with Quick Connect Outlet, Mounted Left Side, Under Cab
15WDG	DEF TANK 7 U.S. Gal. 26.5L Capacity, Frame Mounted Outside Left Rail, Under Cab
16030	CAB Conventional
	<u>Includes</u>
	: ARM REST (2) Molded Plastic; One Each Door
	: COAT HOOK, CAB Located on Rear Wall, Centered Above Rear Window
	: CUP HOLDERS Two Cup Holders, Located in Lower Center of Instrument Panel
	: DOME LIGHT, CAB Rectangular, Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Console, Center Mounted
	: GLASS, ALL WINDOWS Tinted
	: GRAB HANDLE, CAB INTERIOR (1) "A" Pillar Mounted, Passenger Side
	: GRAB HANDLE, CAB INTERIOR (2) Front of "B" Pillar Mounted, One Each Side
	: INTERIOR SHEET METAL Upper Door (Above Window Ledge) Painted Exterior Color
	: STEP (4) Two Steps Per Door
16HBA	GAUGE CLUSTER English With English Electronic Speedometer
	<u>Includes</u>
	: GAUGE CLUSTER (6) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter, Washer Fluid Level
	: ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout
	: WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage (Visual and Audible)
16HGH	GAUGE, OIL TEMP, AUTO TRANS , for Allison Transmission
16HKT	IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster
16HLJ	GAUGE, DEF FLUID LEVEL
16JYX	SEAT, DRIVER {National 2000} Air Suspension, High Back With Integral Head Rest, Cloth, Isolated, 1 Chamber Lumbar, 2 Position Front Cushion Adjustment, -3 to +14 Degree Seat Back Angle Adjustment, Dual Shocks
	<u>Includes</u>
	: SEAT BELT 3-Point, Lap and Shoulder Belt Type
16PJV	SEAT, TWO-MAN PASSENGER {National} Mid Back, Fixed Back, Cloth, With Under Seat Storage
	<u>Includes</u>
	: SEAT BELT (2) One 3-Point Shoulder Belt and One 2-Point Lap Belt (Center Position)
16SDU	MIRRORS (2) {Lang Mekra} Styled; Rectangular, Power Both Sides, Thermostatically Controlled Heated Heads, Clearance Lights LED, Bright Finish Heads & Brackets, Breakaway Type, 7.09" x 15.75" & Integral Convex Both Sides, 102" Inside Spacing
16SJV	MIRROR, CONVEX, HOOD MOUNTED {Lang Mekra} Single, Heated, Bright, Right Side
16WBY	ARM REST, RIGHT, DRIVER SEAT
16WCT	AIR CONDITIONER {Blend-Air} With Integral Heater & Defroster
	<u>Includes</u>
	: HEATER HOSES Premium
	: HOSE CLAMPS, HEATER HOSE Mubea Constant Tension Clamps
	: REFRIGERANT Hydrofluorocarbon HFC-134A
16WJS	INSTRUMENT PANEL Center Section, Flat Panel
16WKY	HVAC FRESH AIR FILTER

<u>Code</u>	<u>Description</u>
16WRX	<p>CAB INTERIOR TRIM Deluxe</p> <p><u>Includes</u></p> <ul style="list-style-type: none"> <li>: "A" PILLAR COVER Molded Plastic</li> <li>: CAB INTERIOR TRIM PANELS Cloth Covered Molded Plastic, Full Height; All Exposed Interior Sheet Metal is Covered Except for the Following: with a Two-Man Passenger Seat or with a Full Bench Seat the Back Panel is Completely Void of Covering</li> <li>: CONSOLE, OVERHEAD Molded Plastic; With Dual Storage Pockets with Retainer Nets and CB Radio Pocket</li> <li>: DOOR TRIM PANELS Molded Plastic; Driver and Passenger Doors</li> <li>: FLOOR COVERING Rubber, Black</li> <li>: HEADLINER Soft Padded Cloth</li> <li>: INSTRUMENT PANEL TRIM Molded Plastic with Black Center Section</li> <li>: STORAGE POCKET, DOOR (1) Molded Plastic, Full-Length; Driver Door</li> <li>: SUN VISOR (2) Padded Vinyl with Driver Side Toll Ticket Strap, Integral to Console</li> </ul>
16WSK	CAB REAR SUSPENSION Air Bag Type
27DPN	WHEELS, FRONT {Accuride 29039} DISC; 22.5x9.00 Rims, Powder Coat Steel, 5-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs, Non-Standard Offset, with .5" Thick Disc
28DTT	WHEELS, REAR {Accuride 28828} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with .472" Thick Increased Capacity Disc and with Steel Hubs
7382135423	(8) TIRE, REAR 11R22.5 Load Range H HDR2 (CONTINENTAL), 491 rev/mile, 75 MPH, Drive
7792545419	(2) TIRE, FRONT 315/80R22.5 Load Range L HSC1 (CONTINENTAL), 484 rev/mile, 68 MPH, All-Position
	<b>Services Section:</b>
40118	WARRANTY Standard for Paystar 5000, and Workstar 7500/7600, Effective with Vehicles Built January 2, 2015 or Later, CTS-2003Z

## **G – S PRODUCTS MODEL CLE-8133E**

### **SPECIFICATIONS FOR 33 CUBIC YARD SIDE LOADER EMCO STYLE CONTAINER LIFT NO BUCKETS, FULL EJECT**

#### **SCOPE**

This specification describes a truck mounted, hydraulic refuse packer. This machine must be equipped with a lifting mechanism for EMCO type side load commercial containers on the street-side. Body must be designed so that optimum load distribution can be achieved when installed on a 56,000-66,000 G.V.W. truck cab and chassis. Body installation shall not require modification to a standard truck chassis forward of the rear suspension. (NO DROP FRAME)

#### **I. BODY**

##### **A. CAPACITY**

1. The body shall have a usable capacity of thirty-three (33) cubic yards including the tailgate (EXCLUDING LOADING HOPPER).

##### **DIMENSIONS**

1. Body length – 311” – (including bustle tailgate).
2. Overall height above chassis – 102” (container lift in “down” position).
3. Overall height above chassis MUST NOT EXCEED – 134” – (curb-side bin in full “up” position). NO EXCEPTIONS!
4. Overall body width with container lift in down position – 102”

##### **1. CONSTRUCTION**

1. The body floor shall be constructed of 1/4” HARDOX 450 steel plate.
2. The body floor shall have 8” x 11.5 lbs./ft. structural channel long – members.
3. Body sides shall be curved shell style, twelve (12) gauge A.S.T.M. 656, Grade 80 steel sheet.
4. Body roof shall be curved shell style, twelve (12) gauge A.S.T.M. 656, Grade 80 steel sheet.
5. All external welds shall be continuous.

#### **II. TAILGATE**

##### **A. CAPACITY**

1. The tailgate shall have a usable capacity of 8.20 cubic yards minimum.

##### **B. CONSTRUCTION**

1. Body tailgate shall be bustle type, top hinged, with heavy-duty hinges and tapered-pin plunger style locks. Pivots and lock pins must have grease fittings.
2. Tailgate shall be equipped with a flow control device to assure smooth, even operation.
3. Tailgate to be constructed from 12 gauge steel sheet and framed with formed steel channel.

4. Gate shall have a seal across the bottom and at least 17" up each side to control liquid leakage.

### **C. OPERATION**

1. For greater operational stability and safety the tailgate shall be raised and lowered with two 2 ½" bore x 28" stroke double acting hydraulic cylinders.
2. All tailgate controls shall be located inside the truck cab within easy reach of the operator's position. I.E. tailgate operation shall not require exit of the cab by the driver. Controls shall be electric/air/hydraulic and spring returned to the "neutral" position.
3. Tailgate to lock and release hydraulically through the use of positive acting, tapered rod, plunger style locks.
4. Tailgate ajar and lock status warning light and alarm to be installed in the truck cab.
5. Safety prop for tailgate to be included.
6. All exterior welds to be continuous.

## **III. PACKER HOPPER**

### **A. FUNCTION**

1. The receiving hopper shall have 6.0 cubic yards capacity minimum.
2. Hopper shall act as receiving chamber for materials dumped by the loading bin and container lift.

### **B. CONSTRUCTION**

1. Hopper floor to be constructed of 1/4" HARDOX 450 steel plate.
2. Hopper side walls to be 1/4" HARDOX 450 steel plate.
3. Welds in hopper that are exposed to abrasive material must be "HARD-SURFACED" to protect them from wear.

## **IV. COMPACTOR**

### **A. FUNCTION**

1. Compactor is to move the material dumped by the container loader from the receiving hopper into the body chamber. Also, compactor is to compress the loaded material to such an extent that the vehicle is loaded to its' recommended capacity.

### **B. OPERATION**

1. Compactor to be powered by one (1), 6" bore x 84" stroke, single section, dual acting hydraulic cylinder.
2. Packer cycle shall be 45 seconds @ 700 R.P.M.
3. When fully extended, compactor must penetrate the body by 18" minimum. This aids compaction of the material and reduces fallback into the loading hopper.
4. Compactor shall displace 2.6 cubic yards/cycle minimum.

5. Compactor shall have "on-demand" style controls with both "AUTOMATIC PACK" and "MANUAL PACK" selector console mounted in the truck cab and convenient from both sides of cab.
6. Compactor stroke shall be automatically reversible through the use of high quality automotive grade switches sensitive to both position and pressure.
7. Unit to be equipped with a "near-loaded" warning alarm to alert operator that body is approaching its' maximum capacity.

#### **C. CONSTRUCTION**

1. Compactor to be guided by a floor mounted "T" track beam.
2. Both the "T" track beam and compactor guide shoes must be made of HARDOX 450 steel plate.
3. The compactor shall be constructed of engineered steel sections and fully tested using state-of-the-art Finite Stress Analysis technology.

### **V. LOADING DEVICE**

Side of operation determined by customer

#### **A. FUNCTION**

1. The Container lifting device must be capable of attaching, lifting, and dumping EMCO style containers currently in use by the purchasing authority. Lift shall also have grabber device for roll carts.
2. Container lift must be capable of lifting and dumping containers weighting up to 3200 pounds.
3. Lift shall transit the container from the ground position essentially in a vertical plane and rotate to dump at approximately forty-five degrees from vertical into the compaction hopper.
4. Lift cycle shall be approximately 20 seconds at engine idle.
5. Lift carriage shall be track guided by roller bearing type steel cam-followers and stabilized by two lift arms, one at each end.
6. Lift shall extend 48" out from the stowed position if needed to attach to containers.
7. Extend and retract function will be accomplished with a 2.5" bore x 48" stroke hydraulic cylinder.
8. Lift up and down motion shall be powered by two (2) 4 1/2" bore x 16" stroke hydraulic cylinders with 1.5" fluid cushions in both the rod and base ends.
9. Grabber arms must be capable of safely lifting 38-96 gallon containers without dropping them into hopper.

#### **B. CONSTRUCTION**

1. Lifting arms must be constructed of solid, high tensile steel plate. Tubular load lifting components are not acceptable.
2. All loading mechanism connecting pins shall be 1.25" diameter, 4140 steel alloy, and surface hardened to 60,000 Rockwell or GRADE 8 S.A.E. Bolts.

### **C. CONTROLS**

1. Controls for lift shall be conveniently located for operation from the driver's in-cab seated position. **Joy stick or rocker switches as required by user.**

## **VI. HYDRAULICS**

### **A. PUMP**

All body and lift functions shall be powered by a tandem-section gear type pump (36 G.P.M. @ 800 R.P.M. ). This pump shall be powered by a transmission mounted Chelsea Model 890 power take- off.

### **B. CONTROL VALVE**

The body and lift functions shall be controlled by a single stack type air activated directional hydraulic valve. All controls for the body and lift shall be air/hydraulic. This directional control valve shall be equipped with a reliable system pressure protection device. The maximum system operating pressure shall be 2500 P.S.I.

### **C. HYDRAULIC RESERVOIR**

The body shall be equipped with a hydraulic reservoir with a minimum capacity of fifty (50) gallons. This reservoir shall be equipped with a fill cap, breather, fluid level indicator and temperature gauge.

### **D. FILTRATION AND SERVICE**

System cleanliness and protection against contamination shall be accomplished through the use of the following devices.

#### **1. RETURN LINE FILTER.**

All oil shall be routed through a 10 micron return line filter. This filter shall be installed in the top of the hydraulic reservoir and properly sized so that 100% of the flow is filtered under normal operating conditions without bypass. Filter must be located so that all periodic service can be performed from ground level without the need for ladders or work-stands.

#### **2. IN-LINE SHUTOFF.**

For ease of service the suction line shall be equipped with a shut off valve plumbed adjacent to the reservoir.

3. **SUCTION STRAINER.**

A 100-mesh oil strainer must be installed in the hydraulic system suction line. This strainer must be serviceable without draining the system reservoir.

**E. PLUMBING**

All body and lift plumbing not requiring flexibility to complete its function must be constructed of seamless steel hydraulic tubing correctly sized for each operation. Plumbing requiring hoses shall be routed in such a way as to prevent rubbing, chafing and undue bending.

**VII. IN-CAB CONTROLS**

The following controls must be mounted inside the truck cab for safe and convenient operation.

1. Hydraulic system on/off switch.
2. Body tailgate control.
3. Body ejector control.
4. Work light and strobe light switches.

**VIII. LIGHTS**

1. Standard lights shall be supplied in accordance with FMVSS#108.
2. All body lights must be TRUCKLITE Model "SUPER 44" L.E.D. with SERIES 50 wiring harness.
3. Both street side and curbside loading locations must have work lights.

**IX. ACCESSORIES**

1. Federal under-ride bumper shall be installed.
2. Tailgate safety prop shall be provided.
3. Body "up" and tailgate "unlock" alarm shall be provided.
4. Back up alarm shall be provided.
5. Both body and hopper shall have access doors on each side for cleaning behind the packer and ejector panels. Doors must be sealed when closed

**X. PAINT**

1. The body and lift shall be free of all weld slag, dirt and grease and be prepared prior to painting in accordance with the paint manufacturers specifications.
2. Body and loading mechanism shall receive at least one coat of primer and one finish coat of polyurethane enamel. Primer shall be approved for use with the finish coat material.

**XI. WARRANTY**

1. A minimum two-year warranty against manufacturing defects shall be provided by the manufacturer.

## Options

1. Attached cart grabber capable of picking up (30,40,60,90) Gallon Carts
2. Crusher Panel
3. Camera System
4. Strobe Light Package