

**ADDENDUM NO: 1**

**REQ NO: 147218**

**FINAL SUBMITTAL: February 15, 2017 2:00 PM EST**

**FINAL QUESTIONS: N/A**

**Department: Fleet Management**

**Changes to Bid No. 304557:**

**Bid Opening will be changed to February 15, 2017 at 2:00 PM EST due to some vendors expressing additional time to review the new specifications.**

**Original bid opening was February 1, 2017 at 2:00 PM EST**

**Attach are the updated specifications from Fleet as per mentioned in the pre-bid conference held on January 25, 2017.**

**Req No: 147218 Bulk Fuel Trucks**

**PLEASE SIGN ONE (1) COPY OF ADDENDUM AND RETURN TO THE PURCHASING DEPARTMENT. RETAIN THE OTHER COPY FOR YOUR FILES.**

**Name:** \_\_\_\_\_

**Company:** \_\_\_\_\_

\_\_\_\_\_

**CITY OF CHATTANOOGA  
PURCHASING DEPARTMENT  
Mark McKeel  
City Hall Suite G13  
CHATTANOOGA, TN 37402  
TELE: (423) 643-7236  
FAX: (423) 643-7244**

City of Chattanooga  
General Services/Fleet Division  
SPECIFICATION  
**Bulk Fuel Truck**  
Truck Chassis and Service Body

**INTRODUCTION; Required**

These specifications describe the vehicle and accessories to be purchased by the City of Chattanooga General Services Department, Fleet Division. These specifications consist of three parts: (1) Required Features – these requirements must be met without exceptions for a bid to be considered acceptable, (2) Preferred Features – attributes/performance that the City wants, however exceptions to Preferred Features are allowed with explanation (The more Preferred Features that are met by a bid, the better the bid.), and (3) Options – additional features/conditions that are optional (i.e., may or may not be offered by Suppliers and may or may not be purchased by the City); Options will be priced as separate line items.

The attached specifications describe the requirements for one (1) Bulk Fuel truck and accessories to be purchased by the General Services, Fleet Division. The specifications are intended to be flexible enough for all major manufacturers to comply. The uses of names or part numbers are used for cross referencing to another brand name to be equivalent or greater to the specifications (Or EQUAL).

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. Failure to accurately complete and submit this form shall be grounds for rejection. Bidder shall complete every space, in the specification's bidder's proposal column, with a check mark to indicate if the item being bid is exactly as specified. If not, the "NO" column must be checked and a detailed description of the deviation shall be listed on a separate sheet. The vehicle furnished in compliance with this specification shall be a new 2018 model, or the latest model in current production (as offered to commercial trade), and shall be of good quality as to workmanship. All items listed in the manufacturer's literature as standard equipment shall be furnished. The equipment shall conform to ANSI Safety Standard Z245.1-1999 or Latest ANSI Safety Standard.

1. The entire vehicle/Apparatus/Equipment is to conform to D.O.T., FMVSS, ANSI, and OSHA and to the requirements of all other applicable regulatory agencies.
2. Parts not specifically mentioned that are necessary to furnish a complete chassis or body/apparatus must have been produced using the automotive industries' best manufacturing practices. This pertains to design, quality of materials and workmanship.
3. Using the attached specifications, bidders must indicate either "yes" or "no" to the right of all line specifications. Exceptions or "no" responses are to be listed and FULLY Explained on a separate page. Failure to complete the spreadsheet or failure to properly document exceptions to the specifications may result in the bid being declared "non-conforming".
4. Loose and miscellaneous equipment is to be provided only as required by D.O.T/FMVSSA and specifications.
5. Each bid is to be accompanied by a set of manufacturer's and as applicable, vendor's specifications. These are to consist of a detailed description of the proposed vehicle/apparatus and equipment. The specifications are to indicate size, type, model and make of all component parts and equipment. A CAD drawing of the proposed vehicle indicating wheelbase, Cab to axle and Cab to end of frame measurements is desired. All weights and horsepower/torque to transmission ratios to axle ratios shall be approved by engineering per vehicle manufacturer to include all detachable components and operations.

All vehicles will be delivered with factory service manuals, wiring diagrams and component locators for cab, chassis & bodies installed on vehicle. *CD's, THUMB DRIVE's, DVD's or access to dealer ON-LINE Manuals will be accepted.*

All warranties will be listed with specific details as to time, including any and all exclusions. No warranties can be Terminated or canceled for any reason during the warranty coverage as stated in bid where specified. No travel or drive time for repairs will be paid while under any manufacturer's warranty.

All power train components, assemblies, subassemblies, component parts and so on, will be designed and constructed with due consideration to the nature and distribution of the load to be sustained and to the general character of the service to which the vehicle is designed for and to be subjected to when placed in service. All parts of the vehicle will be strong enough to withstand the general service under full load. The vehicle will be so designed that the various parts are readily accessible for lubrication, inspection, adjustment and repair and complete unit engineering approved.

All vehicles will be supplied with a line sheet to include as built and current part numbers of any and all components installed on vehicle.

The specified vehicle will be capable of reaching and maintaining a minimum speed of 20 MPH on any grade up to and including 25% or 15 degree grade. The vehicle will be capable of attaining a true speed of 35 MPH in 25 seconds and programmed not to exceed 68 MPH.

All warranty registrations will be completed by bidder and copies provided upon delivery, all warranties will begin on any and all components on the in service date or delivery date if no special training is needed to begin operating vehicle.

Any special software or hardware needed to perform diagnostics on any computer (Engine, Transmission) mounted on cab, chassis and body shall be provided by bidder.

WARRANTY AND SERVICE CAPABILITIES: Manufacturer's standard guarantee against defective parts and engineering shall apply in accordance with the statement of the warranty policy. All Bidders' shall maintain a full service maintenance facility and fully stocked parts facility capable of full hydraulic, electrical and body repair. This shop shall be manned by factory-trained, qualified service personnel. Bidder shall state location. A 25 mile radius of Chattanooga is preferred. Also, provide documentation of service facility. Repeated failure by the manufacturer's authorized dealers to render warranty service when proper shall subject the manufacturer's line to suspension from the approved products list until satisfactory evidence of correction is provided.

### **WARRANTY**

1. Warranty period shall be for the Standard One (1) year and optional Three (3) and Five (5) year bid on pumping systems and related equipment with the exceptions of listed wear items listed by the seller. ALL wear items must be listed separately, unless listed will be considered Warranty.
2. Warranty is to be (5) years on Tank and Body.
3. Warranty shall start on in service date.
4. All warranty registrations shall be completed by the vendor and copies provided upon delivery.
5. Warranty period to be "bumper to bumper" for the standard three (3) years and optional (5) year bid on the cab, chassis, engine, transmission and drive train, excluding wear items. ALL wear items shall be listed separately for Cab and chassis and Body, unless listed will be considered Warranty.

6. Bidder shall include copy of warranty terms and conditions and a list of any exceptions from the warranty as well as wear items. Warranty documents will not be accepted.
7. Provide optional/supplemental bid for One (1) Three (3) Five (5) year warranty.
  - A. \_\_\_\_\_

*Total lifecycle cost will be used as part of the analysis of bids for all vehicles and equipment purchased by the City of Chattanooga/ Fleet Management Division. This includes the daily cost of vehicle downtime.*

1. *For any and all Vehicles and/or Equipment purchased by the City of Chattanooga Fleet Management; a re-imbursement of daily cost for vehicles under warranty and out of service for a period of greater than 10 work days. No exceptions. This means if you're not serious about the support of vehicles you sell, you need to consider this factor as a cost item to you in this bid.*

**1. RADIO REQUIREMENTS IN CAB**

2. 20 amp circuit power and ground shall be provided with an additional 4 amp ignition feed.
3. RG58 Antenna cable with 800 MHz NMO mount and mini UHF connector.

## **60000 GVWR/3800 Gallon Fuel Truck and Body SPECIFICATIONS**

1. General Specifications
  - a. Truck shall be 60000 GVWR
  - b. Chassis configurations shall be 6 x 4
  - c. Cab Configurations shall be a Standard Cab with 107" bbc
  - d. Cab to axle measurement shall be 167"
  - e. Wheelbase 236"
  - f. After frame 120"
2. Frames
  - a. Frames shall be 120,000 PSI
  - b. Frame reinforcement outer "C" channel
  - c. Frames must be painted Black
  - d. Chassis air lines and electrical wires shall be color coded and continuously numbered
  - e. Frame rail warranty provided shall be for 7 years
  - f. Front tow hooks shall be provided
  - g. Cross member Rear, AF
  - h. Front bumper Steel
  - i. Frame assembly shall be huck bolted in lieu of threaded bolts where possible, to minimize frame bolt re-torque service
3. Front Axle and Suspension
  - a. Front axles shall be 20,000 lb. capacity Wide Track I-beam type
  - b. Front suspension shall be 20,000 lb. parabolic taper leaf
  - c. Front shocks are required
4. Brakes
  - a. Air Brakes must be provided
  - b. Front air disc 22.5 includes 20 sq. in brake chambers
  - c. Rear air disc 22.5 includes 18/24 sq. in brake chambers
  - d. Front brake package, (Bendix Spicer ADB22X) air disc type extended service size 22.5
  - e. Rear brake package, (Bendix Spicer ADB22X) extended service size 22.5
  - f. Air dryer is required
  - g. Air compressor 18.7 CFM capacity
  - h. Drain valve manual with pull chains (3) for air tanks
  - i. Brake system Air dual system for straight truck applications
  - j. Air tanks to be mounted between frame rails in front of forward axle
5. Steering
  - a. Steering wheel 18" 2-spoke
  - b. Steering column tilting
  - c. Steering gear
  - d. Power steering with translucent power steering reservoir shall be provided
  - e. Steering wheel mounted controls shall include cruise control, air horn

6. Exhaust System

- a. Exhaust configuration shall be horizontal after treatment device right side includes vertical exhaust pipe
- b. Exhaust regeneration inhibit, momentary, resets when key off
- c. Engine compression brake
- d. Stop lights turned on when engine compression brake is activated

7. Electrical System

- a. 12 volt 160 amp alternator shall be provided
- b. Batteries shall be (3) 12 volt 1950 cca total
- c. Electrical system shall utilize manual reset circuit breakers
- d. An electrical system electronic control module must be provided to monitor electrical system functions and provide in cab fault codes for troubleshooting
- e. Starter motor shall be a 12 volt
- f. Windshield wiper system shall provide high/low speed settings with wash and intermittent features, headlights must turn on when wipers are turned on
- g. Cab dome light shall be provided and activate when doors open
- h. LED tail lights and long life halogen headlights shall be provided
- i. Clearance marker lights shall utilize LED lights
- j. Wiring for body builder installations of PTO controls
- k. Body builder wiring to rear of frame
- l. Radio AM/FM/Bluetooth/WB/Clock/3mm auxiliary input with multiple speakers
- m. Battery jump start stud shall be provided
- n. Air horn
- o. (2) electric horns
- p. Back up alarm with 102 DBA shall be activated whenever vehicle is in reverse
- q. Battery box steel mounted left side under cab
- r. Windshield wiper spd control force wipers to slowest intermittent speed when park brake set and wipers left on for a predetermined time
- s. Test exterior lights pre-trip inspection will cycle all exterior lamps except back up light
- t. Indicator , low coolant level with audible alarm
- u. Headlight warning buzzer sounds when head light switch is on and ignition switch is in off position
- v. Parking brake alarm sounds horn when vehicle park brake is NOT set, with ignition OFF and any door opened (NO EXCEPTION)
- w. Battery disconnect switch mounted inside cab by driver seat 300 amp (NO EXCEPTIONS)

8. Front End

- a. Grille shall be chrome
- b. All daily fluid checks shall be located on drivers side of engine
- c. Hood shall be three-piece design allowing for independent repair of fender sections
- d. Crossover air intake system, draws intake air from the driver side of the hood
- e. Front turn signals LED, side marker lights, fender mounted LED

9. Engine

- a. Engine must provide a minimum of 370 HP 1250 lb-ft torque SCR system
- b. Block heater 120 volt/1000 watt
- c. Engine shall be equipped with a single element air filter
- d. Engine must be equipped with extended life coolant
- e. Fan drive (Horton Drive master) direct drive type, two speed with residual torque device for disengaged fan speed
- f. Federal emission, EPA, OBD, & GHG certified for calendar year
- g. Engine control, remote mounted
- h. Throttle hand control engine speed control for PTO mounted on steering wheel
- i. Radiator aluminum, cross flow series system 1228 sq. in core and 1167 sq. in charge air cooler with transmission oil cooler

10. Transmission

- a. Transmission shall be Allison 3000 RDS 6 speed
- b. Push button type controls
- c. Transmission PTO is required
- d. Shift control parameters performance programming
- e. Synthetic transmission oil
- f. Transmission TCM located inside cab (NO EXCEPTIONS)
- g. PTO location dual Left and Right side of transmission
- h. PTO MUST disengage with put into drive
- i. Work lights to be wired to PTO switch to be able to turn on with PTO

11. Fuel tank

- a. Fuel tank shall provide 50 U.S. gallon capacity non polished aluminum left side under cab
- b. Engine mounted fuel filter shall be provided with minimum 250 micron rating
- c. Fuel/water separator w/sight glass shall be provided
- d. DEF tank 7 U.S. gal capacity frame mounted outside left rail under cab

12 Cab Exterior and Interior

- a. Cab shall be White in color Conventional cab
- b. Cab shall be painted with premium paint and urethane clear coat finish
- c. Cab shall be constructed with double sided galvanized steel
- d. West coast style integral convex both sides heated heads power both sides clearance lights LED bright finish heads and brackets
- e. Grab handle interior (2) safety yellow (NO EXCEPTION)

- f. Gauge cluster English with English electronic speedometer
  - g. Transmission oil temp gauge
  - h. IP cluster display on board diagnostic display of fault codes in gauge cluster
  - i. Driver seat air suspension high back, vinyl
  - j. Passenger seat to be air suspension high back, vinyl
  - k. Exterior grab handles chrome towel bar type with anti-slip rubber inserts for cab entry left side at "B" pillar (*reinforced behind pillar to prevent pulling through*)
  - l. Hood mounted (2) convex mirrors left and right side
  - m. Seat belts all orange in color
  - n. Air conditioner with heater and defroster
  - o. Instrument panel center section ergonomic panel (wing type)
  - p. Power windows and door locks
  - q. Fresh air filter HVAC
  - r. Cab interior trim deluxe
  - s. Cab air suspension air bag type
  - t. Cowl tray lid
  - u. Cup holders shall be provided
  - v. Gauge warning shall include, low fuel warning, low oil pressure warning, high engine coolant temperature and low battery voltage
  - w. Coat hook on rear cab wall
  - x. Cab switches shall have back lighting for night visibility
  - y. Operable door vent pocket windows must be provided for flow of outside air circulation through cab interior
  - z. Fresh air filter attached to air intake cover on cowl tray in front of windshield under hood
  - aa. Electrical Fuse/Circuit breaker panel (no tools needed for access) shall be located inside of cab to prevent exposure to corrosive elements
13. Wheels & Tires
- a. Front and rear wheels shall be 22.5 x12.25 (*polished aluminum*)
  - b. Wheel seals shall be oil lubricated
  - c. Front tires 425/65R 22.5 20 ply highway tread
  - d. Rear tires 11Rx22.5 16 ply M & S
  - e. Continental tires are recommended
14. Rear Axle
- a. 40,000-lb capacity with driver controlled lock differential forward-rear and rear-rear axle Meritor MT-40-14X-4DCR
  - b. Suspension Hendrickson HMX-460-54-46,000-lb capacity with rubber end bushings, transverse torque rods, less shock absorbers
  - c. Axle ratio 5.29

- d. Differential lock protection: rear axle MUST be equipped with a safety feature, which shall automatically disengage the locking differential at a speed of approximately 20 MPH

15. MISC

- a. (1) remote power module mounted inside cab behind driver seat (NO EXCEPTIONS) for a total of 6 latched switch's dash mounted from factory
- b. Body intergraded PTO accommodation for electric over hydraulic PTO includes audible alarm and indicator light in gauge cluster
- c. 3 extra keys
- d. Safety equipment
- e. 3 extra keys
- f. Parts and service information: Web based access to VIN specific parts & service information required for a period of not less than (2) years, includes warranty info, parts and service manuals for the truck chassis, wiring diagrams, and VIN specific "AS BUILT" components
- g. Warranty period to be base warranty on chassis, engine, transmission and drive train and body, (wear items excluded)
- h. Bidder shall include a copy of warranty terms and conditions and a list of exceptions from the warranty as well as wear items
- i. Warranty shall start on in service date
- j. Bid shall include shipping/delivery
- k. A title or M.S.O. must accompany the vehicle
- l. A copy of the invoice shall accompany the vehicle
- m. Suspended pedals: ALL pedals including throttle and brake shall be suspended rather than floor mounted to reduce the potential for material or loose items gathering underneath the pedal that may impede its operation, and minimize corrosion penetration in cab floor
- n. NMO cable MUST be routed through mirror arm and antenna mounted on mirror arm
- o. 20 amp continuous circuit power and ground (10 gauge wires for both) shall be provided with an additional 4 amp ignition feed
- p. GPS & back up camera to be flush mounted style in wing panel of dash, display with color touch screen, includes GPS navigation, rechargeable battery, Internal antenna & USB port with screen size to be a 7 inch display factory installed.
- q. MUST have seen a DEMO unit within (6) six months of bid.
- r. (4) amber flashing LED lights on each rear fender left and right side, (3) amber flashing LED lights mounted in rear bumper, (2) amber flashing LED lights mounted top corner of rear body, (4) amber flashing LED lights mounted in grill. All flashing lights shall be mounted in conduit that is mounted on the body.
- s. Must have local parts and service dealer for body and chassis within 25 miles of City of Chattanooga

## **TANK SPECIFICATIONS**

SIZE:	3800 Gallons plus normal overage.
MODEL:	AL76D
CERTIFICATION:	Tank is manufactured to DOT 406 specifications under ASME (American Society of Mechanical Engineers) U Stamp #27,488 and Department of Transportation Registration #CT-6342. A DOT 406 Certificate of Compliance will be issued by Oilmen's Truck Tanks.
PRODUCT:	Petroleum Products. (As is always the case, it is the responsibility of the operator to load tank so as to comply with Federal and State Highway weight limits.)
COMPARTMENTS:	(2) 3000-800 Gallons or quantities of your choice. (NOTE: Some compartment configurations may require extra baffles.)
DESIGNED FOR:	A cab and chassis with 166" cab to axle dimensions and 20,000# minimum rated front axle and 40,000# minimum rated rear axle. (Note: Tires, springs, axle and frame must meet these minimums.
MATERIALS:	<p>Bright polished aluminum. Tank is constructed with a continuously welded 3/8" extruded angle subframe, 3/8" extruded aluminum cross members and 3/8" outriggers with pads at <u>every</u> head and baffle location. Also a nose pad covering the seam between the front head and the bottom is included for extra strength. This type construction is used in the finest of trailers and results in long, trouble free life even in off the road conditions.</p> <p>The tank bottom is 1/4" (.250") aluminum with side shell of 3/16" (.188") aluminum. Our entire shell and heads are of bright polished finish. (This polished finish is <u>not</u> standard on some competitive brands.)</p>
MOUNTING SYSTEM:	<p>Tank is anchored to the truck chassis by a series of specially designed two-piece tie down assemblies. The two halves of the tie down are locked together in such a way that both side to side and front to back movement are prevented, while securing the tank to the chassis.</p> <p>A maintenance-free neoprene strip cushions and insulates the tank from the truck chassis.</p>

HEADS:	Tank is semi-oval in shape with deep dished heads and baffles for superior surge control. All heads and baffles are flanged for greater strength. Head patterns of our own special selection result in low center of gravity. All heads and baffles are formed to precise dimensions resulting in a shell of extraordinary smoothness and strength.
BULKHEADS:	Double bulkheads with vented drain space between compartments allow for the safe transportation of mixed product loads.
BAFFLES:	<p>If the compartment is large enough for baffles to be required under D.O.T. 406 regulations, then these are included as standard equipment.</p> <p>There are (3) transverse baffles in the 3000 gallon compartment.</p> <p>Additional transverse baffles and longitudinal baffles are available as options.</p>
OVERTURN PROTECTION:	<p>The overturn protection to D.O.T. 406 specifications is of 3/16" (.188") aluminum and is an integral part of tank so as to prevent any leaking from top.</p> <p>Both overturn rails are the closed inverted "U" type with the curbside rail being air tight and used for the vapor recovery line.</p>
MANHOLES:	Premium grade Betts 16" round, lift-out type with 10" quick opening lockable fills and D.O.T. 406 approved venting. Unless requested otherwise, the manholes are offset to the curbside (right) for wide walkway down the roadside (left) of the tank.
MODEL AL76D:	<p>Large, completely enclosed rear compartment will accommodate either dual or single meter and reel setups. Rear equipment compartment has large raise up canopy door with drip molding to protect driver when it is raining, pneumatic lifters and positive closing pin latches with locking "D" handles that are recessed. Entire rear compartment is aluminum for ease of maintenance.</p> <p>The rear equipment box has reinforced aluminum floor and is completely enclosed for dust-free operation with double step down floor, which incorporates a built in drain pan and drain valve.</p>

SIDE ACCESS DOORS:	Two side doors, one each side, in rear equipment cabinet allows access to equipment and/or extra storage with locking "D" handles.
TOP WALKWAY:	Each tank is provided with wide walkway area between the overturn rails with expanded aluminum providing a non-skid surface for safe footing.
SIDE WALKWAY:	Aluminum 5" grip strut provided on each side entire length of tank.
MARKER RODS AND DISCS:	A heavy duty marker rod and aluminum disc, approved by all states, is provided in each compartment. For maximum protection, the markers should be set and sealed by a State Weights and Measures Official of the state where vehicle operates. Most states provide this service at no charge.
DRAIN TUBES:	(2) Drain tubes are provided from the flashing area at the front and rear of the tank to assure that no water accumulates on top of the tank.
BUMPER:	A heavy-duty bumper per D.O.T. 406 specifications protects rear of tank.
CABINETS:	65" Specialty cabinet on driver side has reinforced double doors. Doors have positive close pin latches with locking "D" handles that are recessed. Doors have continuous stainless steel hinges and hold open springs.
PIPING:	<p>Piping includes 3" bolted sumps, over-sized 3" air emergency valves and 2" pipe lines. This larger capacity results in much faster discharge rates. Pipelines on this model are a full 40% thicker than those found on most competitive tanks.</p> <p>Lines are run directly to the pump.</p>
EMERGENCY VALVE:	All emergency valves are air operated. Air operated fire trip is provided on front driver's side.
FENDERS:	Bolt-on aluminum trim tandem axle fenders are provided.
LADDERS:	Aluminum platform type ladder is provided at the rear, curb side, with non-skid steps and grip strut platform and grab rails for safe access to top of unit. Ladder is bolt on for ease of repair.

WIRING/LIGHTING:	All wiring in tubing is vapor proof. Lighting complies with ICC/D.O.T. regulations and include: (2) 5" stop and tail, (2) 5" clearance and directional, (2) back-up lights and (1) 3-lamp cluster. There are four side riding lights and all necessary reflectors are included. All lights are Betts LED type with snap seal lenses.
SYSTEM IDENTIFICATION:	Pipe lines, switch panels and airline protection are color coordinated to facilitate system identification and troubleshooting.
PAINTING:	Painting of steel components including sanding, applying an additional epoxy prime coat, and spraying with (2) finish coats. Paint job to be (1) color with Oilmen's Truck Tanks to furnish PPG Delfleet paint, a premium grade polyurethane paint.
MATERIALS AND CONSTRUCTION:	All materials and construction methods meet or exceed Department of Transportation 406 regulations. A Certificate of Compliance will be issued with tank.

LETTERING/DECALING: Custom decaling is available as an **option**.

Tank, all labor to mount, and make electrical connections is included.

### ***BOTTOM LOADING, VAPOR RECOVERY AND BRAKE LOCK SYSTEM***

BOTTOM LOADING ADAPTER:	(2)	4" EBW openable loader with handle and sight glass.
GRAVITY DROP ADAPTER:	(2)	4" X 3" with Keeper Chain
DUST CAP:	(2)	3" with Restraining Cable
INTERLOCK VALVE:	(2)	Air operated valve mounted on each bottom loading adapter.
DEFLECTORS:	(2)	OEC type which controls splash above sumps.
MANHOLE COVERS:	(2)	Betts 16" with 10" offset fills, vent and probe openings.
STATIC WIRES:	(2)	Stainless steel braided cable from cover to splash deflector.

POSITIVE VENTING:	(2)	OPW/Civacon 3-1/2" Air vent with aluminum hood.
VAPOR RECOVERY LINE:	(1)	Air tight line full length of tank.
RECOVERY ADAPTER:	(1)	4" Vapor recovery adapter with built in poppet check valve.
DUST CAP:	(1)	4" Vapor Recovery Dust Cap
BRAKE INTERLOCK VALVE:	(1)	Air valve with limit switch (required for vapor recovery).
CONTROL VALVE:	(1)	Schrader Air Valve
SECONDARY VENTS:	(1)	4" Betts Inbreathing
	(1)	4" Betts Outbreathing
GROUNDING STUDS:	(1)	Set of (2) Brass
CIVACON SYSTEM:	(1)	Rom-Link System - Contains Civacon Optic Probes, Civacon Rom II On-Board Control Monitor for the versatility of loading at terminals equipped with optic, thermistor or fleet control units.
SOCKET:	(1)	Civacon 4401 API for Thermistor
SOCKET:	(1)	Civacon 4100 API for Optic
GROUNDING BOLT:	(1)	Civacon GS1000 SAF-T Ground Bolt
MISCELLANEOUS:	(1)	Set elbows, air lines, fittings, support brackets and ties.

All material, labor to install system, test for vapor tightness and check out equipment. Included will be a Wet Test Certification and a 60 Gallon Certification.

## ***PUMPING EQUIPMENT***

### (2) Sets of equipment to include:

PUMP:	(2)	Blackmer TXD2.5" with relief valve.
STRAINER:	(2)	2" Flanged type.
PUMP BRACKET:	(1)	Heavy duty saddle type.
METER:	(2)	2" Liquid Controls with air eliminator, strainer and zero start register with cumulating totalizer.
BACK PRESSURE VALVE:	(2)	2"
AUTO STOP:	(2)	2" Double stage valve with preset counter.
TICKET PRINTER:	(2)	Zero start type.
SPRAY CONTAINER:	(2)	Two gallon capacity for air eliminator with air vent and drain valve.
METER MOUNT PLATE:	(2)	1/4" Aluminum for extra strength.
HOSE REEL:	(2)	1 ½" Hannay electric rewind with vapor proof motor and solenoid switch. Floor mounted reels facing rear.
BATTERY CABLE:	(2)	Industrial grade for electric hose reel.
CIRCUIT BREAKER:	(1)	70 Amp breaker with 9 amp fuse for protection of reel switch and motor.
FUEL HOSE:	(2)	150' x 1-3/8" Goodyear Redwing with Scovill fittings.
JUMPER HOSE:	(2)	Special highly flexible 2" Goodyear.
JUMPER HOSE SUPPORT:	(1)	Two-bar support rack for jumper hoses is provided.
COUPLER:	(2)	2" OPW female dry break coupler.
NOZZLE:	(2)	1-1/2" Husky automatic with hose swivel.
POWER TAKE OFF:	(2)	High speed, double gear air shift with air controls at rear and safety light located in cab.
BRAKE LOCK:	(2)	Automatic PTO release type.

DRIVE SHAFT:	(2)	High torque drive line with spline slip joint and (3) grease fittings.
PLACARDS:	(4)	Flip Type Included
PLACARD HOLDER:	(3)	Included
FIRE EXT.:	(1)	10# with bracket included.
TRIANGLE KIT:	(1)	Included
BUCKET:	(1)	5-Gallon DOT approved heavy duty metal bucket.
SPILL PADS:	(1)	Case emergency absorbent pads.
NOZZLE HOLDER:	(2)	Included
DUMMY ADAPTERS:	(2)	Included
METER LIGHT:	(1)	Included
WORK LIGHT:	(3)	(2) Facing rear and (1) in bucket box.
STROBE LIGHT:	(1)	12-Volt LED 21 pattern programmable included.
TANK GAUGE:	(1)	SeeLevel 2-Compartment digital monitor system. (See Photos)
BACKUP CAMERA:	(1)	Backup camera system with 7" color screen.
TICKET BOX:	(1)	Weatherproof ticket box mounted in rear bucket box.
TANK HEIGHT DECAL:	(1)	Decal indicating height of vehicle.
MANUALS:	(1)	Operations and equipment manuals will be provided.
MUD FLAPS:	(1)	Set D.O.T. approved anti-spray.
PARTS LIST:	(1)	Detailed parts list of each major component of pumping system including serial numbers and model numbers of pumps, meters, and reels.

All equipment, labor to mount, check out system and calibrate meter included.

## **DEF 0812C – 12VDC**

- TANK: 150-Gallon stainless steel round 27" diameter x 38.5" long saddle mount tank including: factory mounting brackets with polished straps, stainless manway, 2" poly pressure/vacuum vent, 2" fill port with MicroMatic RSV fill coupler, 1" bottom outlet with stainless ball valve, and stainless float sending unit with display gauge.
- PUMP: 3/4" Tuthill stainless steel rotary vane pump for 8 GPM with a 1/2 HP 12VDC TEFC continuous duty motor, internal bypass, and thermal overload protection. *At 12V DC the full load current is rated at 45 amps.*
- FILTER: 1CFH20 Westco stainless steel cartridge filter housing with 1-micron absolute filter elements.
- REEL: 1" Hannay 12V electric rewind aluminum reel with stainless steel wetted components. Reel will be inverted in rear with 4-way roller rack.
- REEL HOSE: 100' x 1" Flextral PE75 hose with stainless pipe fittings.
- NOZZLE: (1) OPW 21Gu with Mis-Filling Prevention spout and hose swivel.
- COMPLIANCE: All wetted materials meet ISO 22241-3 specifications.
- MUST HAVE DEALER WITHIN 25 MILES OF THE CITY OF CHATTANOOGA

### **EXCEPTIONS AND DEVIATIONS**

Bidder shall fully describe every variance, exception and/or deviation. Additional sheets may be used if required.

### **OTHER OPTIONS**

Guaranteed quote for trade in values at 3/5 year intervals:

\_\_\_\_\_

Optional/supplemental bid for Five (5) year warranty on cab, chassis, engine, transmission and drive train:

\_\_\_\_\_

Optional/supplemental bid for Three (3) Five (5) year warranty on pumping systems and equipment:

\_\_\_\_\_

Agent's Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

## SEEELEVEL GAUGE SYSTEM





