

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF PURCHASING AND SUPPLY
SPECIFICATIONS FOR
TRUCK CHASSIS, HYDRAULIC SERVICE CRANE, AND CRANE BODY,**

PURPOSE:

The purpose of this specification is to establish a purchasing requirement for a service truck with rear corner mount crane, including truck chassis, crane service body, and accessories, for use by the Department of Motor Vehicles (DMV), State Agencies, and other Public Bodies of the Commonwealth of Virginia

SCOPE:

The crane service truck vehicle described in these specifications must be provided as a complete turn-key package. The Bidder must provide the truck chassis, the corner mounted crane, reinforced service body, and all accessories and incidentals necessary to produce a completed vehicle to meet the requirements of the specifications contained in this document.

The quantity required is **one (1)** completed vehicle.

BIDDER REQUIREMENTS:

Bidders/Vendors shall submit complete technical data of the product being offered, with an itemized comparison of the product offered with these specifications. Vehicles offered by a bidder may contain equipment that is in addition to the basic vehicle equipment required in the specifications below, or which exceeds the basic equipment stated in the specifications below. Bidders/Vendors shall indicate equivalence or where they exceed specifications on the specifications form under "Equivalent Item Data" next to each specification item, using the lines provided across from the specification items. All blank lines requesting information in the "Specifications Data" section must be filled in. The Commonwealth reserves the right to obtain technical data and to request clarification when deemed necessary. **Failure on the part of the bidder/Vendor to provide all requested documentation may be cause to reject the bid/request as non-responsive.**

The Commonwealth reserves the right to conduct a pre-paint inspection of the vehicle at the Contractor's facility prior to painting and finishing. Any corrections to the vehicle necessary to provide conformance to specifications shall be made by the Contractor at its sole expense prior to painting and finishing. The vehicle shall be weighed prior to pre-paint inspection, and a weight ticket from a certified scale showing weight on each axle shall be provided to DMV inspection personnel. Transportation and associated expenses for DMV inspection personnel to and from the Contractor's facility will be the responsibility of DMV.

A final acceptance inspection of the finished vehicle shall be conducted at the Contractor's location or at DMV receiving location, as determined by agreement between DMV and the Contractor after notification by the Contractor to DMV that the vehicle is completed. If the final inspection is held at the Contractor's facility, transportation of the DMV personnel to the Contractor's facility, and the associated DMV personnel expenses will be the responsibility of DMV. The final acceptance inspection may be conducted after delivery of the vehicle to a DMV facility. All logistics and costs for transportation of the vehicle to the DMV facility shall be the responsibility of the Contractor. If defects are found at final inspection, all must be

corrected by the Contractor within thirty (30) days, at the Contractor's sole expense. The Contractor shall be responsible for any damage that may occur to the vehicle during delivery to the DMV facility.

Following the vehicle delivery to DMV, and acceptance of the vehicle by DMV, the vehicle shall be put in service by qualified Contractor personnel, to provide training for DMV personnel in operation and maintenance of the crane, truck chassis, and all accessories included on the vehicle. Placing the vehicle in service shall be held at a date and time to be agreed upon by the Contractor and DMV. Operational training to put the vehicle in service shall not be later than thirty (30) days following delivery of the vehicle to DMV.

The following documentation shall be provided by the Contractor, and shall be included with the vehicle at delivery:

- Two (2) Operator's manuals in hard copy
- Two (2) maintenance and parts manuals in hard copy
- Two (2) color coded and/or numbered wiring schematics, to include all wiring in the crane and body installation, and complete wiring schematics of the chassis wiring.
- Two (2) hydraulic system schematics, if not included in manuals

NOTE: Schematics may be included in manuals provided.

The contact person for training/documentation is Jeff Spencer, Weigh Tech Manager, at Jeff.Spencer@dmv.virginia.gov, and phone at (804) 367-6608.

Delivery of the vehicle, FOB destination, will be accepted at the DMV facility at 2300 West Broad Street, Richmond, VA 23220 between the hours of 8:00 AM and 3:00 PM Monday thru Friday, except for Commonwealth of Virginia holidays. Contact Beth Cooley at (804) 367-1828 no less than 48 hours before delivery. Unless otherwise instructed or agreed to with the Contractor by DMV, delivery of the completed vehicle is preferred to occur within ninety (90) days from the date of the purchase order.

The Contractor shall notify DMV immediately of any chassis defect(s) that impact operational capability of the vehicle or equipment, or will impact delivery schedule while the chassis is in the Contractor's possession. The primary point of contact shall be Beth Cooley, and the secondary point of contact shall be Jeff Spencer.

The equipment offered in answer to this request for bid must be new and unused current production models of the equipment required. No prototype, demonstrator, or rebuilt product will be accepted, and offering of such a product will be cause for bid rejection.

USE OF BRAND NAMES:

The following specifications are intended to define the minimum level of quality and performance of the requested product, and are meant to be met or exceeded. The specifications are NOT meant to be restrictive as to brand name or manufacturer. Where brand names are used in the specifications text, the specifications are not meant to be restrictive as to the brand name or manufacturer. Equipment bid may be the brand name and model, or shall be ***equivalent*** to brand names and/or any other specification elements using the **Use of Brand Names** clause (see General Terms and Conditions) in making an equivalence determination.

- steel, minimum 20 gauge thickness.
- c. Floor shall be minimum 12 gauge thick steel tread plate.
- d. Compartments shall have minimum 12 gauge thick tread plate tops.
- e. Front bulkhead and compartment partitions shall be minimum 14 gauge two-sided galvanized steel.
- f. All body compartment partitions are full height.
- g. Flush type wheelhouse panels are minimum 14 gauge two-sided galvanized steel, with rubber fenderettes, or steel fender flares.
- h. Minimum wheel box construction is 14 gauge two-sided galvanized steel, with 12 gauge tread plate tops
- i. All seams shall be fully sealed watertight, or full welded.
- j. Provide at least two shielded drain holes in each compartment.
- k. Shelving shall be minimum 18 gauge steel, galvanized or equivalent coated, removable, adjustable height, lock-in-place type, with provision for removable dividers on 2" centers. 2" minimum lips on each shelf.
- l. Shelf dividers are minimum 18 gauge steel, galvanized or equivalent coated. Top edge of each divider shall be rolled over by 1/4" minimum.

C: UNDERSTRUCTURE:

- 1. Body understructure shall be of a torque resisting design suitable for corner mount crane use:
 - a. Body understructure shall provide necessary height above the truck frame with wheel boxes to provide sufficient wheel clearance above the rear wheels for full chassis suspension travel.
 - b. Body understructure shall resist operating torque of the crane at maximum moment with no torsional deformation of the body, and shall prevent over stress torque applied to the truck frame.
- 2. Provide an outrigger support structure to supplement the chassis frame, capable of transferring all forces generated from the boom through the mast base, to manually extended and retracted outriggers, without stress damage to the truck chassis frame.
 - a. Fasten the outrigger support assembly to the truck frame using a bolting system. Do not weld outrigger assemblies to the truck frame.

D: DOORS:

All body doors shall meet the following requirements:

- 1. Door mullions or doors must be designed for attachment of captive type waterproof replaceable door seals at all doors. Adhesive attached weather stripping is not acceptable. Door seals must be installed after finish painting.

- d. Step bumper floor shall be minimum 12 gauge thick tread plate surface, and tread plate kick plate.
 - e. Step bumper shall have a cross tunnel storage compartment with a minimum 8" x 8" door opening on each end.
 - f. Each door of the bumper thru-tunnel shall be hinged at the bottom, and have a locking slam-acting or twist-lock latch.
 - g. Each thru-tunnel door shall have replaceable automotive type weatherproof door seals.
 - h. Provide left and right cable type stirrup steps as needed for step bumper access.
 - i. Furnish and install body access grab handles on left and right sides at the rear.
3. Furnish and install a swing-down tailgate across the back of the body load space, between the rear of the curb side and street side compartments.
- a. The tailgate shall be of double panel minimum 14 gauge galvanized steel construction, 10" minimum height.
 - b. Tailgate shall be hinged at the bottom. Hinge type may be continuous rod hinge, or pivot pins at each end.
 - c. A removable stop chain or link brace assembly shall be provided at each end of the tailgate to stop the tailgate in a horizontal position in line with the body floor. Detaching the stop chains or linkage assembly shall allow the tailgate to swing its full arc below horizontal.
 - d. Tailgate shall latch on each end in the closed position with a slam-acting latching mechanism, and release to open by means of a release handle mechanism.
4. Provide a vise mounting bracket, with bolt-on attachment mounting, on the top curb side of the step bumper:
- a. The Agency will install a vise on the vise bracket.
5. Furnish and install two mud flaps, plain black, with no wording or logo, at the back of the rear tires of the vehicle.
- a. The bottom edge of mud flaps must be high enough to prevent catching under the tires when backing.
 - b. Clearance to rear tire is 5" to 8".
 - c. Mud flaps shall be of the "no sail" type, to keep them in position during road travel.
6. Furnish and install (6) recessed tie-down rings in the body load space floor:
- a. Install (3) on the curb side, and (3) on the street side.
 - b. Tie-down rings shall be spaced along the body floor, front to rear. Locate one pair at the front of the body to the rear of the oil tank, one pair at floor center, and one pair at rear of the floor.

- n. No "Scotch-Lock" type parallel connectors will be accepted, and the use of such devices will require rewiring of all areas where they may appear.
 - o. All electrical components outside the cab shall be of weatherproof design.
2. Furnish and install an electric back-up alarm, to sound when the vehicle is placed in reverse.
- a. The alarm must be solid state, and waterproof.
 - b. Alarm must be wired to sound when the ignition is "on", and the vehicle is shifted into reverse.
3. Furnish and install a lighting package to comply with U. S. Department of Transportation, National Highway Traffic Safety Administration, Bureau of Motor Carrier Safety, Federal Motor Vehicle Safety Standard No.108, and State of Virginia rules and regulations.
- a. All stop, turn, tail and backup lights shall be rubber grommet shock mount sealed LED light type.
 - b. Lights are to be 4" diameter rubber grommet mounted Truck-Lite "Super 44" or equivalent LED lights.
 - c. Provide (2) clear backup lights in the rear light package.
 - d. All clearance and marker lights shall be 2" diameter rubber grommet shock mounted Truck-Lite LED model 30, or equivalent.
 - e. The front marker lights on the body shall be amber in color, and mounted to prevent reflection in the trucks' outside rear view mirrors
 - f. The rear identification and marker lights shall be red in color. Locate lights per FMVSS 108 requirements.
 - g. Vinyl grommets that the lights are mounted in shall not be painted.
 - h. Vinyl light grommets shall not be installed until after finish painting is completed.
 - i. Provide and install a license plate holder and license plate light, Truck-Lite LED model 15 light bracket or equivalent.
4. Furnish and install a strobe light package consisting of the following components and installation:
- a. Install one (1) double flash strobe light, North American Model DFSM-1, or equivalent. Mount strobe light on a platform support or pipe mount at the highest point possible, at the front of the body, on the vehicle centerline, behind the cab.
 - b. The strobe light shall be mounted at a height such that the lens is visible above the stored crane.
 - c. The strobe light may be mounted on a platform or pipe mount of minimum 1½" diameter pipe or steel tube, or 1½" minimum square steel tubing.

- d. If a strobe mounting platform is used, the strobe light mounting platform shall be minimum 12 gauge thick steel.
 - e. Strobe light wires shall be inside the tube strobe light support.
 - f. The strobe light shall NOT be installed on the roof of the cab.
 - g. The lights shall not interfere with the hydraulic crane or body equipment installed.
 - h. The strobe light shall be protected with steel brush guards.
 - i. Power for the strobe light shall be wired to a dash mounted upfitter switch with an indicator light.
5. Provide and install a perimeter strobe light system, in addition to post mounted strobe lights:
- a. Provide and install (2) 4" diameter LED amber vinyl shock mounted strobe lights in the rear light package, Truck-Lite Super 44 integral strobe, or equivalent.
 - b. Provide and install a total of (2) rectangular strobe lights, mounted as high as possible in each wheelhouse panel, (1) each side, at top center of each wheel panel.
 - c. Provide a pilot lighted switch on the cab dash to operate perimeter strobe lights, with an indicator light showing perimeter strobes are "on".
 - d. Install a grommet mounted LED strobe light on left and right ends of the front bumper, or install two (2) weatherproof LED strobe lights on each side of the chassis grille.
6. The strobe lights operating switch shall be connected to a flashing indicator light on top of the dash that flashes with the strobe lights, providing a live indicator light to show the strobe lights are "on".
- a. All the strobe lights must be wired "hot" to function independent of ignition, and must operate with ignition on or off.
 - b. Ground each strobe light individually.
7. Provide and install an underbody lighting system, using a Transportation Safety Technologies, Inc (TST) 4-light kit:
- a. Use (4) TST clear halogen lights, no. LA201.
 - b. Install one light under each corner of the body, to illuminate the perimeter area around the vehicle body
 - c. Use an "upfitter" switch on dash or install a lighted switch to control the perimeter lights.
 - d. Provide circuit breaker protection for the perimeter light system.

body load space floor, the top of each wheel box, and the top surface of the body step bumper.

3. Furnish and install a corrosion preventive and protective undercoating compound to the underside areas of the body. The compound shall be composed of a grit and abrasive-free nonvolatile base material dispersed in a solvent and will meet the following general requirements:

- a. It shall protect all metals and be non-injurious to all materials used in automotive construction including rubber, plastics, glass, and automotive finishes.
- b. The material shall be applied to insure complete coverage to all underbody areas, with special attention to critical seams. Care shall be taken that the application does not interfere with any mechanical, electrical, or heat transfer details of the vehicle.
- c. Drain holes or passages shall remain open to assure proper water and moisture drainage after processing.
- d. Any excess undercoating material due to over-spray, drips or runs, shall be removed from the exterior and interior of the vehicle.
- e. All surfaces to be undercoated shall be clean, dry and free from loose material.
- f. The compound, when applied to panels and air-dried may char but shall not support combustion for more than 15 seconds after the flame source is removed.
- g. The compounds, when applied to panels and air-dried shall not crack, peel or chip.

4. The vehicle shall be Virginia state inspected, and have a current Virginia inspection sticker affixed when delivered.

- a. All other window stickers and window markings shall be removed prior to delivery.
- b. The chassis manufacturer window sticker(s) shall be removed, and placed in the cab glove compartment.

INSTALLATION NOTES:

Remove the battery cable ground strap before welding at any location on the vehicle, to prevent damage to chassis electronic components.

- Do not allow welding cables to lie on top of vehicle wiring.
- Refer to the chassis manufacturer Body Builder Book and Incomplete Vehicle Document for additional cautionary measures which must be taken before welding.
- Use weld blankets to protect cab and window glass from damage due to weld spatter.
- Welding must comply with American Welding Society (AWS) specifications, and be done in accordance with accepted commercial practice. Welders performing structural and safety related welds are to be AWS Certified.

The installer will be responsible for repair/replacement of any truck chassis damage due to welding before the vehicle will be accepted.

If modifications are necessary to be made to the chassis exhaust system to permit correct installation of body or equipment, all exhaust system modifications are the full responsibility of the installer.

- No exhaust modifications are to be made that compromises the vehicle emissions requirements, or the operation of the engine.
- Exhaust system modification parts are to be equal or superior in quality to OEM equipment.
- All modified exhaust system components are to be connected to the OEM parts with clamps. No welding of custom parts to existing OEM exhaust system parts will be allowed.

Mounting of electrical equipment on a metal radiator or the radiator supports is **not** recommended. The radiator frame is usually mounted on rubber supports, AND IT MAY NOT BE GROUNDED.

- If an electrical device mounted in this area is not properly grounded, it will cause the electric current to ground through the coolant.
- Current grounding through the coolant will cause electrolytic corrosion of the radiator, resulting in rapid radiator failure.

If mounting an electrical device on the radiator or radiator supporting structure is unavoidable, a **#10 gauge ground wire** must be added to any electrical device mounted to the radiator or its supports, and connected at a ground point on the engine block.

Assembly workmanship and attention to detail in construction of the vehicle is essential, and shall be in accordance with all applicable industry standards. The following are examples that include some of the minimum level of workmanship items that shall be provided by the Contractor:

- There shall be no incorrect use and/or location of hardware or fasteners.
- All riveting shall be fully seated and tight, and all bolting required shall be tightened to appropriate torque values.
- All unfinished edges, seams, corners, or joints shall be corrected and completed.
- All rough or sharp edges shall be smoothed, and all burrs shall be removed.
- Welds may not exhibit irregular bead patterns, excessive spatter, and/or incomplete slag removal on stick welds.
- Misalignment and uneven gaps or spacing in assembly are not acceptable.

WARRANTY:

Products provided must include warranty to provide the best practical no-cost protection to the Commonwealth for correction or replacement as needed for defects in manufacturing, assembly, or parts to cover truck chassis and all installed equipment. Provide documentation of standard warranty as well as offering alternate coverage for extended warranty protection.

Warranty coverage for the crane, body and auxiliary equipment: Summarize below:

Parts and Labor: _____

Travel Charges Coverage: _____

Provide details of your best warranty offering for the chassis to be provided for this specification.

DELIVERY:

Delivery of completed vehicle to DMV location at _____ days after receipt of order.

UNIT ITEM PRICING:

Price for cab-chassis per specifications section I:\$ _____

Price for crane and installation per specifications section II:\$ _____

Price for body, accessories, and installations per specifications sections
III, IV, V and VI, to include vehicle delivery FOB destination:\$ _____

GRAND TOTAL PRICING:

Total for all unit items, including delivery and all requirements of specifications: \$ _____