

SPECIFICATIONS FOR BODY, DUMP, 1 1/2 CU. YD.

SCDOT Spec. No. B101.12 - 07/22/10

DESCRIPTION: The dump bodies shall be heavy-duty body and hoist assemblies designed and constructed for handling stone, dirt, and asphalt in highway maintenance applications over a very long life-cycle (10 + years). Additional uses will include tailgate and hopper type material spreader installations for snow removal. One size of body is covered in this specification.

CAPACITY: Minimum one and one-half (1 1/2) cubic yards, water level.

DIMENSIONS: The inside width of the body shall be not less than 78 inches, and the inside length 9 feet. The height of the body sides shall be proportioned to secure the specified minimum 1 1/2 cubic yards capacity. Front end and tailgate corners shall be three (3) inches higher than the sides and equipped with pockets for 2" x 4" side boards.

MATERIAL: The body shall be constructed of not lighter than 10 gauge high tensile steel. All steel body construction shall be a minimum 45,000 psi steel. Body shall be completely seam welded on exterior, stitch welding is not acceptable.

CAB SHIELD: The body shall be equipped with an all-steel cab shield strongly constructed of not less than 10 gauge steel and adequately braced. The shield shall be of proper proportions to afford what is commonly referred to as one-quarter coverage, minimum 13 inches.

BODY: The body shall be of welded construction with full-length running boards sloping and reinforced by not fewer than two (2) heavy V-section or box type pressed steel side braces, front and rear of each side with single panel 10 gauge side walls, or 12 gauge panel side walls and two (2) additional V-section box type pressed steel side braces. Body shall have a double acting tailgate equipped with heavy-duty offset type hinges, chains, and hooks for lowering to any position, together with adjustable spreader chains. The body shall be designed with raised sides at floor for easy cleaning. The tailgate operating lever shall have a protective rubber cover and be located at the left front end of the body for convenient operation from the driver's position in the cab, and it shall be adequately supported to insure positive action. The tailgate lever control shall have adjustment on each side at rear.

The top rail shall be fully enclosed utilizing radius bends to form a dirt shedding design. Cross members shall be interlaced or equal through the long rails so that both cross members and long rails are welded to the floor of body to minimize "wash board" effect and maximize floor support.

Rear tailgate shall be one piece 10 gauge steel. Tailgate pins shall be CRS machined steel tapered to insure easy use. Upper tailgate pins shall have steel safety snap-pin lock device, cotter pins are not acceptable. The tailgate shall have a dirt shedding type reinforcing rib running horizontally as well as on sides, top, and bottom. When lowered to the horizontal position, the tailgate shall form a continuous platform with the bed of the body, allowing for only a negligible amount of gap.

There shall be no "dog-house" or other encroachment within the body.

Safety devices as required by OSHA regulations Section 1926.601 (6) (10) (11) and (12) shall be furnished. Two (2) body safety props, one on each side, shall be provided.

Additional safety equipment shall include PTO warning light, body raised warning light, and OSHA-type lever lock for the body control lever. All hose, fittings, and connectors shall be provided to completely install the unit.

A complete lighting package shall be furnished with lights and reflectors to meet South Carolina Motor Vehicle Laws, as well as FMVSS and DOT requirements. Mounting locations (recessed) shall be pre-punched and drilled. Lights shall be the shock-mounting type and recessed in rubber grommets.

Complete wiring harness shall be furnished with all wiring in plastic loom. All lights shall be the LED type.

HOIST: The hoist shall be the manufacturer's latest double arm, under body type or single stage scissors type and shall include hoist assembly, electric pump, control valve assembly, electric cab control for hoist pump and dump with single push button control suitable for dash mounting, hinges, body guides and full-length steel sub-frame, completely assembled and ready for installation. The hydraulic system shall be filled with hydraulic oil, or adequate oil furnished in bulk to fill the system. The hoist assembly shall be completely assembled and ready for operation.

Hoist construction shall consist of a frame with full length, formed channel, with minimum yield strength of 45,000 psi. The body hinge to hoist link pin distance shall be not less than 24 inches. Body overhang past the body hinge shall be approximately 6 inches. The body hinge to hoist lift arm pin (at body) distance (horizontally) shall be not less than 27 inches. The lift cylinder shall be minimum 5.0 inches in diameter, and shall have a 15 - 20 inch stroke.

The cylinder shall be equipped with a cushion valve or internal by-pass circuit. The chrome-plated cylinder piston rod shall be two (2) inches in diameter.

The scissors hoist shall have lower frame arms constructed of ½ inch T-1 steel plate and upper arms constructed of ¾ inch T-1 steel plate. Hoist arms shall be constructed of minimum 100,000 psi steel.

The body hinges shall be integrated by welding into a sub-frame rear cross member. The rear cross member shall be engineered for capacity of the hoist. The hinges, brackets, and pins shall be heavy-duty in design and construction. The body hinges shall be suitable for welding the hinge to the body.

The hoist rating shall be NTEA Class 20 (minimum) and not less than 9 tons with 9 ft. body and approximately 6 inch overhang. The hoist manufacturer shall be a current member of the National Truck Equipment Association and the hoist system shall be listed on the current NTEA Dump Body & Conversion Hoist Chart.

The maximum dumping angle shall be not less than 47 degrees.

The design of the pump shall be such that in its relation to the hoist cylinder there will be no high-pressure oil line on which any swivel action occurs.

EQUIPMENT: The unit shall be complete with all standard equipment and accessories normally furnished. In addition, equipment and/or services shall be furnished as follows:

1. The unit shall meet all applicable OSHA requirements.
2. Electric/hydraulic power unit
3. Lighting package with lights and reflectors to meet DOT/FMVSS regulations and South Carolina motor vehicle laws. Wiring to be in plastic loom.
4. Body raised warning light.
5. All necessary mounting materials and hardware.

EQUIPMENT/SERVICES OPTIONAL: When requested during the contract term, the following optional equipment and/or services shall be provided.

1. Body and hoist optional equipment additions, deletions and/or substitutions of equipment required by this specification, based on terms found under the special conditions of the bid invitation.
2. Optional dump body and associated hardware installation as may be required during the contract term.
3. ElectricTarp System with in-cab controls and asphalt rated tarp compatible with body size, Donovan 7000ELD or equal.
4. EZ-Step, 3-step retractable ladder access ladder and grab handle

COLOR: The unit shall be painted or powder coated gloss black. The unit shall be cleaned and primed prior to application of the finish paint. Primer not required for powder coating. Serial and data plates shall be protected from being painted over. Complete body shall be undercoated with petroleum based undercoating.

All manufacturer's standard warning, safety, instructional, and identification decals shall be provided; however, there shall be no vendor or dealer identification or advertising decals allowed.

Add Options:

1. Installation of body and hoist systems
2. Pull tarp assembly
3. Pull tarp assembly with installation
4. Crank tarp assembly
5. Crank tarp assembly with installation
6. 11 Ft. body in lieu of 9' (requires 84" CA)
7. Amber rotating or flashing strobe light mounted on cab shield
8. Asphalt spreader apron with installation
9. Tool box, under body, 36" x 18" x 18" with installation