

Dump Trailer Comparisons

Stepp Manufacturing has produced highway maintenance equipment for 74 years, making us the oldest manufacture in the country in our industry. The Stepp SPHD-3.0 is a 3 cubic yard, 4 ton capacity dump style hot box. The SPHD has the lowest profile hopper on the market and comes standard with an oil jacketed heating system. The oil jacketed heating system gives the operator the smoothest, most efficient heating system available on the market. Coupled with the stability of our hoist system, this makes the Stepp SPHD the clear choice for years of dependability and durability while still making the unit operator friendly. Below is the differences between Stepp and our competition.

Stepp	Spaulding	Falcon
Hopper		Hopper
<p>Standard Oil jacketed with submerged 5" flue with Stain-less steel replaceable flue liner to prevent flue burnout. 85 Gallons of heat transfer oil. Oil last longer and retains heat longer.</p> <p>67" high hopper Height</p> <p>Internal expansion tank for oil jacket.</p> <p>Lowest hopper height on the market. Burner exhaust dumps on top of the mix to prevent asphalt bridging.</p> <p>Formed steel construction for superior strength</p> <p>Hopper floor shall be flat when the hoist is down to achieve the lowest overall hopper height for driver visibility of operators at the rear of the unit.</p> <p>Longer, lower profile to load easier with a skid loader or large front end loader.</p> <p>The oil jacket shall have 2" of 1½# density high temperature fiberglass insulation covered with a 12 gauge insulation jacket.</p>	<p>Bottom fired oil jacketed with burner chamber.</p> <p>External expansion tank on oil jacketed.</p> <p>Angled Hopper floor. Higher profile</p> <p>Higher hopper loading height, Harder to load with large loaders</p> <p>Insulated with ceramic insulation. Ceramic insulation is a refractory insulation and does not retain heat as well. Usually only used where direct flame is in contact.</p> <p>Capped and channel construction.</p> <p>External Burner Stack</p>	<p>Standard Air Jacketed, With bottom fired oil jacketed as option. 30 gallon oil jacket. Fast heat up fast cool down. Has ceramic wool firing chamber.</p> <p>External expansion tank on oil jacketed.</p> <p>Angled Hopper floor. Higher profile</p> <p>Higher hopper loading height, Harder to load with large loaders</p> <p>Insulated with Rock wool. Does not offer great heat retention.</p> <p>Capped and channel construction. 16 gauge outer insulation jacket. (lighter Duty)</p> <p>External Burner Stack</p>

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Burner	Burner	Burner
<p>Burner to be fired into a 5" flue with stainless steel liner. Submerged flue prevents hopper burn out and has superior heat transfer from the burner to the oil jacket.</p> <p>Burner exhaust gasses will be recycled and exhausted on the top of the material to prevent bridging and capture the most efficiencies of the burner system. The burner gases will then be exhausted through the top covers of the units.</p> <p>Fuel tank shall be mounted in the front of the trailer on a bolt in cross-member.</p> <p>Burner shall have a safety tilt switch to disable burner when unit is raised.</p>	<p>Burner fires into a ceramic lined burner chamber only using the exhaust heat to heat the hopper.</p> <p>Units using an external stack will be unacceptable due to the heat loss out of the stack and not being environmentally friendly or efficient.</p> <p>Unit Exhaust out holes on the outside of hopper.</p> <p>Fuel Tank mounted on the hopper and tilts with the hopper. This mounting location does not provide any protection in the case of an accident.</p> <p>No safety tilt switch</p>	<p>Burner fires into a ceramic lined burner chamber only using the exhaust heat to heat the hopper.</p> <p>Units using an external stack will be unacceptable due to the heat loss out of the stack and not being environmentally friendly or efficient.</p> <p>Fuel Tank mounted on the hopper and tilts with the hopper. This mounting location does not provide any protection in the case of an accident.</p> <p>No safety tilt switch</p>
Hoist	Hoist	Hoist
<p>Hopper shall have a heavy duty truck type, hydraulic scissor hoist, single cylinder for dumping material. Hoist to be mounted to a sub frame that is bolted to frame rails of the trailer. Dual cylinder, non-scissor hoist shall not be acceptable.</p> <p>Uses truck hoist with truck hinge pivot. (Palfinger or Rugby Mfg)</p> <p>Weight distribution with the hopper design allows you to dump unit with out being hooked up to the truck hitch or the need of down riggers. Center of gravity is the center of the tandem axles for superior stability.</p> <p>Can travel with the box and hoist in the up position</p> <p>Dumps to 52°</p> <p>Easy cleanout from the ground at the end of the night without going on top of the trailer frame.</p> <p>Hoist shall be powered by a 12Volt electric over hydraulic pump. Dual action / Power up and Power Down</p> <p>Hoist to be mounted to a bolt on sub frame.</p> <p>Hoist shall be rated to lift 12,000# and include a safety prop.</p> <p>Power unit shall be located under the hopper attached to the bolt on sub frame.</p>	<p>2 hydraulic cylinders that tip the hopper. They use the same hopper as there non-dump style.</p> <p>Cylinder mounts below the hopper frame.</p> <p>The center of gravity is behind the rear axle.</p> <p>Dumps to 40°</p> <p>Top heavy.</p> <p>Have to step on frame to clean out box</p>	<p>2 hydraulic cylinders that tip the hopper. They use the same hopper as there non-dump style.</p> <p>Cylinder mounts below the hopper frame.</p> <p>Requires drop leg outriggers to hoist the hopper. Lifts weight off of the rear truck tire with out outriggers. The center of gravity is behind the rear axle.</p> <p>Dumps to 40°</p> <p>Hoist must be down and outriggers down to dump, can't move truck with hoist in the up position.</p> <p>Top heavy.</p> <p>Have to step on frame to clean out box</p> <p>Single action pump Power up gravity down. Can be problematic in cold weather with thick oil preventing the hopper from coming back down.</p>

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Trailer	Trailer	Trailer
<p>Shall be A-frame style constructed of 2"x 6"x 3/16" high strength rectangular steel tubing reinforced at all stress points.</p> <p>All trailer wiring and fuel lines to be routed internally in the frame where feasible and to exit the frame rail to the electric components.</p> <p>We use cable where ever we can and all connections are soldered connections. We also use sealed junction boxes and terminal strips with labels</p> <p>The 3.0 cy trailer shall be equipped with 7000# leaf spring tandem axle, unit shall have ST235/80/R16 load range E radial tires, heavy duty replaceable 12 gauge steel fenders, pintle hitch, adjustable from 19" to 34" and adjustable screw jack.</p> <p>The trailer shall have 2- one piece bolt on heavy duty shackle trailer tracks straight 200% heavier than the completion.</p> <p>constructed of ¼" steel. The 7000# axles shall have a oil bath hub on each hub.</p> <p>All Options are bolt options and optional equipment can be added at a later date.</p>	<p>Wiring on the out side of hopper and frame in loom. Very little protection from hot asphalt or weather and corrosion.</p> <p>The standard tire is a 8x14.5 Ply tire. Very uncommon tire to get replaced. They have the radial as an upcharge.</p> <p>Light duty Welded on axle shackle 6 pieces. Ours is a solid one piece, one piece always tracks straight.</p>	<p>Wiring on the out side of hopper and frame in loom. Very little protection from hot asphalt or weather and corrosion.</p> <p>The standard tire is a 8x14.5 Ply tire. Very uncommon tire to get replaced. They have the radial as an upcharge.</p> <p>Light duty Welded on axle shackle 6 pieces. Ours is a solid one piece, one piece always tracks straight.</p>

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Top Doors	Top Doors	
<p>Top doors are formed steel with reinforcements and insulated with polyurethane spray foam insulation for superior insulating quality. The top doors shall be constructed of 16 gauge, A36 Steel and be insulated with a closed-cell polyurethane spray foam insulation with an R value of R9 per inch and have a minimum of 2” of insulation. The top doors shall be mounted with 1” bearing at each end. The 16 gauge formed steel eliminates the need for angle iron, reinforced cross members.</p> <p>Top doors are angled to shed water and have a 4” to 2” taper from the center of the unit to outside of the hopper.</p> <p>Handles are located on the front of the hopper and are locking in the up and down positions. Handles retract to the up and down positions, and have gas assist shocks for ease of use and slam protection.</p>	<p>Angled Hopper flat top door</p> <p>Ceramic Insulation</p> <p>Pipe handles with bike grips on them.</p> <p>Pins to lock doors open and closed. Pinch points.</p>	<p>Capped and angle iron doors.</p> <p>Rock Wool Insulation</p> <p>Pipe handles with bike grips on them.</p> <p>Pins to lock doors open and closed. Pinch points.</p>