

Replacement Manure Pump “Better Than New”

B & M Welding builds a replacement pump for use on big liquid manure tanks that it says pumps faster and lasts longer than the originals. Brian Martin designed the pump with higher quality steel and a bearing housing.

“Our high volume manure pump has 25 percent more flow than a Houle pump and will last twice as long,” says Martin.

Martin recognized the need for a better pump design while running his own manure application business. Pumps and gear take a beating, especially at sand-bedded dairies. Pumps on his tanker were wearing out prematurely.

As he got into welding and doing repairs for other manure haulers, bad pumps were a recurring problem.

“We started working on a new pump design about 5 years ago and went full-time with fabrication and repair about 3 years ago,” says Martin. “I sold my application equipment, but kept working on the pump.”

Initially Martin used mild steel, gaining about 50 percent longer life. Switching to AR500 steel has added 100 percent more life compared to OEM pumps, yet at a significantly lower cost.

Martin designed the pump for greater volume and added proprietary features that extend life. Martin prices his replacement pump for a 9,500 gal. tank at \$1,600, not

including shipping. The price covers the pump housing, front plate and impeller. It does not include the bearing housing with bearings and shaft. Here, too, Martin has built an improved version.

“We can use the stock Houle bearing housing or provide a custom unit with heavier bearings and a heavier shaft,” says Martin. “Ours is priced at \$950. Both it and our replacement pump cost considerably less than the OEM version.”

Martin will customize his pump for other style manure tanks and even custom built tanks. He just needs the bolt pattern for attaching to the manure tank.

“Give me a call with specifications, and send lots of pictures if it is a custom system,” says Martin, who suggests including a tracing of the bolt pattern.

Martin emphasizes that his pump is not for every application. It is built for large systems than need to unload fast, hauling as much as possible in as short a time as possible.

“It will unload 9,500 gal. of lighter consistency manure in less than 2 min.,” says Martin. “It takes power too. Depending on soil conditions, terrain and the size of the tank, it will take a minimum 275 hp tractor.”

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B&M Welding says its replacement pump for big liquid manure tanks pumps faster and lasts longer. Photo shows pump housing with bearing housing and shaft impeller at left.



Photo shows pump and bearing housing after installation.

Vacuum Digger Makes Holes Fast

This vacuum-powered digger doesn't just dig a hole fast. With the help of a shop vac, it also sucks away the loose dirt. It was originally designed for a special contract with the California Department of Transportation.

“The California DOT needed a way to safely remove dirt to install a locking system to prevent copper wire theft along the freeways,” says Lee Barton at Factory Direct Fastening. “We designed the Steed Digger to do the job with 2 cutting heads for 4 and 8-in. dia. holes. It can dig an 8-in. dia. hole 24 in. deep in under a minute.”

Since the design is size neutral, the company is considering scaling up with larger bits and vacuum systems. The current model needs only a regular shop vac to work.

The Steed Digger consists of a 4-ft. tube with a bit at one end and a set of sliding handgrips and a Y-connection at the top. The Y includes a connection for a shop vac tube and a thresher blade for breaking up plugs should they occur.

The operator twists the cutting head, slicing through dirt and roots alike. The sliding handgrip allows the operator to work

up close to walls, poles or obstacles. Dirt is vacuumed up the tube and into the canister for later dispersal.

Because the cutting motion is hand controlled, it allows for more sensitive digging. The operator can feel an underground cable or tubing before cutting into it.

Should a plug occur, a hand crank at the top of the “Y” can be used to rotate the thresher blade inside the tube, breaking up the material. It can also be used to move the blade vertically to speed breakup.

Barton says the Steed Digger has already found many uses. It speeds digging post holes, drilling holes for deep irrigation of tree roots or drilling multiple mulch basins for gray water systems.

The Steed Digger is priced at \$500 plus shipping. Check out a video at www.farmshow.com.

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Vacuum-powered digger consists of a 4-ft. tube with a bit at one end and a set of sliding handgrips.



Unit is available with 2 cutting heads for digging 4 and 8-in. dia. holes (left). Dirt is vacuumed up tube and into canister. A thresher blade inside head breaks up any plugs.

Push Mower Shovel Lifts Branches Out Of The Way

“I used to have to lift up branches on my spruce trees with a fork while my wife cut the grass under them with our push mower. One day when she was away the grass needed to be cut, so I mounted a snow shovel on front of the mower to get the job done. It worked okay, but not good enough,” says Chuck Hampe, Berkeley Springs, W. Va.

“The shovel’s handle was loose so I removed it and built a frame for the shovel’s blade, which can be quickly removed from the mower deck by pulling a pin. Works great.”

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Chuck Hampe uses a snow shovel blade mounted on front of his push mower to lift branches out of the way as he mows.