

Lift Stores Big Stuff On Shop's Upper Level

Dan Grasser gets the most use he can out of his shop thanks to his big lift platform. It allows him to store items as large as a Model A Ford on the shop's second level.

"I bought an old 6,200-lb. electric forklift for my lift," explains Grasser, a former highway bridge contractor. "It was worn out and had seen lots of hours, but the most still seemed good. I built a 6 1/2 by 10-ft. platform for it with two uprights that are topped by small, rubber-tired wheels. As the platform is raised, they push against a hinged ceiling panel on the upper level, forcing it to lift and make room for the platform."

The free-span shop is 60 ft. square with sidewalls made from 14-ft. long by 6-in. thick by 17 1/2-in. wide recycled bridge stringers. Grasser used 8-in. square steel plates to tie the stringers together. The sidewalls sit on 2-ft. concrete stem wall foundations.

The shop has a gable roof that peaks at about 28 ft. Clear span trusses are 60 ft. long and made from 8 by 8-in. square, 1/4-in. thick tubular steel beams. They rest on two similar beams that run the length of the walls.

Spacing between the trusses varies from 12 to 20 ft.

"I figure those trusses would hold up to 56 lbs. per sq. ft.," says Grasser.

Ceiling or second floor joists are 2 1/2-in. by 6-in. bridge decking. Plywood sheets attached to the decking forms the ceiling/floor. One 20 by 60-ft. section has a 10-ft. high ceiling. The second floor of this section is suspended about 4 ft. below the trusses by U-shaped steel saddles attached to the trusses. Similar U-shaped supports extend up from the trusses to support the roof beams.

The remainder of the shop has a 14-ft. ceiling. Here the floor joists are attached directly to the clear span trusses.

The lift is placed in the shop so that both levels can be accessed. When raised to the 10-ft. height, smaller items like motorcycles, parts and equipment (anything under 4 ft. high) can be rolled off and under the trusses.

Larger pieces, including Grasser's Model A Ford, can be raised to the 14-ft. level and rolled off and down the floor between the end wall and the nearest truss.



Two wheels on the top of lift push ceiling door open to make room for 6 1/2 by 10-ft. platform.



"With the lift, I can make use of every bit of space above the ceilings," says Grasser. "If anybody is in the area, I'd be glad to show them what I did and how it works. Just give me a call."

Contact: FARM SHOW Followup, Dan Grasser, 17980 County Road 30, Stratton, Colo. 80836 (ph 719 348-5363 or 719 349-1035).

How To Make White Tractors More Fuel Efficient

Ed Welters of Welters Farm Supply, Verona, Mo., recently contacted FARM SHOW about a couple of modifications he makes to older White diesel tractors to improve fuel economy.

Welters is a White farm equipment dealer who services equipment throughout North America.

"One modification is to add about 4 ft. of soft copper tubing along the engine to pre-heat fuel," says Welters. "We cut the fuel line and run the new copper line along the bottom of the engine, then up to the manifold and back down. It warms up the fuel between

the fuel tank and the diesel pump by up to 20 degrees."

The other idea is to replace the tractor's original pto unit with one from a bigger tractor. The replacement pto gearcases are geared much slower, which allows the engine to run at a slower speed.

"We recently made both modifications to a 1976 White 2-105 tractor. Many farmers still use these tractors to operate hay equipment that's designed to run at 540 pto rpm's," says Welters. "We replaced the tractor's original pto gearcase with one out of a White 4-150 4-WD articulated tractor. The 2-105's engine

normally runs at 2,200 rpm's when using the pto, but by replacing the pto gearcase we can run the engine at only 1,500 rpm's and burn less fuel.

"We used the tractor to operate a round baler or a Gehl 9 1/2-ft. discbine equipped with rubber rolls. Fuel consumption went from 2 or 3 gal. per hour down to 1 1/2 gal. or less, and the tractor still has plenty of power. Since this tractor has 15 speeds below 10 mph, it's easy to shift up or down and get the right speed for the job."

Welters says the pto replacement generally costs \$800 to \$1,000. He says the pto

gearcases on White tractors are designed to be interchangeable, but the idea won't work with many other tractor brands because they don't have the variation in pto gearcase speeds.

"Call to find out which tractors will properly change pto," he says.

The company also offers update kits for fuel injection pumps and turbos, too. "On Deere tractors with 140 hp and up we've seen fuel improvement of up to 2 gal. per hour," says Welters.

Contact: FARM SHOW Followup, Welters Farm Supply, 14307 Lawrence 2190, Verona, Mo. 65769 (ph 417 498-6496).

"Floor Jack" Shop Hoist

"I sat in my shop thinking one day that I needed a hoist for my riding mowers and ATV's. I didn't want to spend a lot of money, so I built one that makes use of an ordinary wheeled floor jack," says John Blackwell, Brantford, Ont.

The jack is used to raise and lower ramps made from a pair of aluminum running boards off an old Ford pickup. Each running board is reinforced with bolted-on 2 by 8's underneath. A 4-in. length of angle iron connects the running boards, about 3/4 of the way toward the front end of the ramps. The angle iron stabilizes the ramps and also serves as a lifting point for the floor jack. A pair of 2-ft. high wooden blocks bolt permanently onto the back end of the ramps.

To operate the hoist, Blackwell starts with the front end of the ramps laying on the floor. He rolls the floor jack under the angle iron, and then backs the tractor up onto the ramps. Then he manually pumps the floor jack to raise both ramps until they're level. To drive the tractor off the ramps he simply lowers the floor jack.

"I modeled it after a commercial frame straightener that I saw at a local car body shop. I have a one-car garage and do part-time small engine repair. The ramps sit about 2 ft. off the floor, which allows me to work safely and easily around all sides of the equipment. I can lay on a creeper all day without ever having to stand up, which is a lot better than laying on my back on a cold cement floor. It saves me an hour of labor per tractor."



John Blackwell's shop hoist makes use of an ordinary wheeled floor jack, which is used to lift a pair of aluminum ramps until they're level.



Jack presses up against large piece of angle iron that fastens to both ramps. Photo at right shows how back end of ramps rest on blocks against wall.

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"Dustless" Blaster Uses Glass & Water

Using only water and glass, the Dustless Blaster from MMLJ Manufacturing can strip a car in about two hours. It can clean graffiti off a wall or remove paint from a motorcycle fender. The combination works on steel, brass, aluminum, other metals and even fiberglass, thick and thin.

"A typical abrasive blaster shoots dry sand or other dry abrasives," says Jacob Gardner. "Ours introduces water, which cuts down on dust and increases productivity. It's like throwing a handful of wet sand...it hits harder and yet it doesn't fly everywhere."

While any dry medium that sinks in water can be used, he recommends recycled bottle

glass. It's environmentally inert, won't disintegrate into dust and is easy to clean up.

"It settles around whatever you're blasting, and you can just sweep it up or lay down plastic and roll it up when you're done," says Gardner. "Less containment (often none) is needed around a work area."

The water in the mix also reduces the potential for warping due to friction, which can occur with dry blasting mediums. The water reduces friction and heat.

Dustless Blaster comes in a wide range of models, starting with the DB150 priced at \$5,000. It delivers 50 lbs. of blasting medium in about 15 min., is 12 in. wide and 45 in. tall. It weighs 115 lbs. and requires at least a 60 cu. ft./min. compressor.

The DB800 Mobile, one of their larger models, is trailer-mounted with a diesel compressor delivering up to 210 cu. ft./min. at 150 psi. The medium tank holds up to 8 cu. ft. of blasting material and has a separate 200-gal. water tank for full mobility.

MMLJ is the original manufacturer of the blast equipment and offers a lifetime warranty on tank assemblies. To see a Dustless Blaster in action, check out the video at www.farmshow.com.

Contact: FARM SHOW Followup, Dustless Blasting, MMLJ Manufacturing, 5711 Schurmer Rd., Houston, Texas 77048 (ph 713 869-2227; toll free 800 727-5707; www.dustlessblasting.com).

