

of old 4-ft. high steel wheels, making it easy to move in or out of my shop. I use a loader tractor to pick up the opposite end and steer it.

"The rack is about 25 ft. long including a pair of 5-ft. ramps. The wheel channels are



14 in. wide and spaced 6 ft. apart.

"The rack was originally fastened to the floor by a pair of steel I-beams. I bolted a pair of 2-in. angle irons on back in place of the I-beams and a pipe on front to keep the wheel channels stable.

"The wheels are attached to a pipe axle and can be removed by pulling a pin. The jack stands have steel discs welded on the bottom to keep them stable.

"The big advantage of this rack is the vehicle is high enough that I can sit up instead of having to lay down on a creeper.



"I used a 4-ft. length of railroad rail and angle iron to build this heavy duty sawhorse and anvil. Works great whenever I need to split a tractor. I slide the sawhorse under the tractor frame and shim it to keep it at the height needed; then roll the tractor away on a jack. Also works great for straightening out dented parts."

Bob Depperman, Kennard, Neb.: He has been installing his own zerks on farm equipment for the past 40 years. He warns that zerk repair can be tricky. "To install a zerk, lay the dust cap (inside up) on a block

of soft wood, and use a punch to make a dent where you want the zerk. You want to place it so when the zerk is installed, it will clear the spindle nut. Flip the cap over and drill a 3/16-in. hole through the now protruding dent. The hole is perfect for tapping in a 1/4-in., 28-thread, automobile style grease zerk.

"If a zerk comes loose or won't hold, you can braze a 1/4-in., 28-thread nut over the hole," he says.



Glen Schweppe, Syracuse, Neb.: Glen recently sent FARM SHOW photos of how he replaced the incandescent light bulbs on his old mercury vapor outdoor yard lights with compact fluorescent light bulbs (CFL), which are less costly to operate. He removes the transformers from the outdoor lights, leaving the crossbar that holds the shade on and leaving the electric eye on top. He drills 2 or 3 holes in the shade to accept snap-in porcelain lamp holders. Then he installs three 13-watt bulbs, which replace the yard light's original three 60-watt bulbs.

"We've replaced all our mercury vapor outdoor lights with CFL bulbs this way, with no problems. As a result we've saved a lot on our electric bill," says Schweppe. "The CFL bulbs aren't as bright as the original bulbs but they're cheaper to operate. And if one bulb burns out there'll still be two working lights. The shade comes with a round hole in the center, where I glue in a screen to keep bugs out."

Proper electrical rewiring is important, says Schweppe. "All the outdoor lights I've worked on have 3 wires coming out of the electric eye. On the wires coming in, I use the black as positive and hook it up to the other black wire on the electric eye. I hook white or negative to all white wires. I hook up the red wire from the electric eye to all black wires from the lamps."

Air Intakes, Exhausts Boost Diesel Engine Efficiency

You can boost the performance and efficiency of diesel engines with aftermarket products that modify air intakes and exhausts. Several products are available for diesel pickup engines and brand name farm equipment.

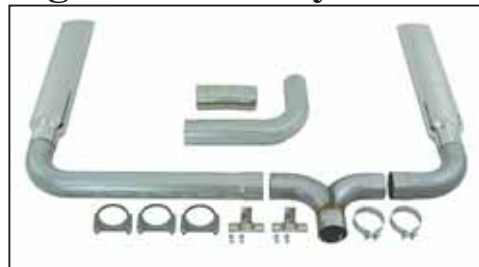
Pusher Intakes is an internet only company that offers a modified air intake package for the 12 and 24-valve Cummins diesels used by Dodge Rams and the Powerstroke diesels used in Super Duty Ford pickups. Pusher says that its Cross Air intake system will increase air flow, boost turbo speed, lower EGT's and produce better fuel economy.

The Cross Air system has 3 1/2-in. intake tubing that's nearly the same size as the perimeter of the square shaped inlet of the factory Cummins intake plate. This tubing provides the maximum laminar airflow to the engine without machining off the side of the head. Pusher says the 16 gauge tubing increases the intake volume by 27.4 percent over the OEM intake. The Cross Air intake system includes the manifold, feeder tube, boots, clamps, and hardware. Prices range from \$159 to \$399, depending on engine size.

Installation is done by tapping into a freeze plug port at the rear of the intake plenum. The Cross Air splits off the boost tube and creates another parallel path of air flow in addition to the stock plumbing. The Cross Air is made from mandrel bent steel tubing and uses top quality 4-ply silicone couplers, stainless clamps, and 1 1/2 by .095-in. DOM pipe. Pusher intakes can be customized as needed and come ported for all boost (input/output) applications. The kit is available in several colors. Prices range from \$199 to \$699 depending on the engine application.

Contact: FARM SHOW Followup, Pusher Intakes, (www.pusherintakes.com).

Parley's Diesel Performance has air and exhaust tuning systems, electronic performance chips, exhaust upgrades, fuel injection kits and other engine performance parts for diesel truck and farm equipment engines. The company says anyone who owns diesel-powered equipment can increase its efficiency and power output by installing a performance air intake system. The intakes work because they allow the engine to intake a larger amount of air through higher volume intake tubing. When the engine gets more air flow, the fuel burns more efficiently and produces more horsepower. Parley's high flow performance filters are washable and



Do-it-yourself air and exhaust upgrade kits, such as these from Pusher Intakes, can greatly improve performance.



reusable.

Some of the company's performance diesel intake systems are designed with heat shields or are fully enclosed to keep hot air out of the intake stream. They also take advantage of technology like mandrel-bent intake tubes, powder coating, and high-quality hardware designed to reduce air restrictions and intake temperatures. Cold air intake systems even take inlet air from outside of the engine compartment where the inlet air is cooler. Cooler inlet air temperature translates to more power during the combustion process because cool air is more dense than warm air.

Parleys says a standard factory exhaust system can also rob a diesel engine of power and economy. They use the analogy of blowing through a tube the size of a Bic pen filler compared to blowing the same amount of air through a soda straw. With a restricted exhaust, the engine is always "forcing" the exhaust gases out, wasting fuel in the process. Parleys suggests installing a larger diameter exhaust system with a smooth mandrel bent radius. That could improve fuel mileage slightly and provide additional power from the engine. The company goes on to say, "even if your diesel is equipped with a catalytic converter or a particulate filter, adding a larger diameter exhaust after the emission control device will still help improve your diesel fuel economy." Prices for various kits range from \$199 to about \$1,200.

Contact: FARM SHOW Followup, Parley's Diesel Performance, St. George, Utah 84790 (ph 801 938-4891; www.parleysdieselperformance.com).



Steve Brouillard came up with this portable shop crane by turning a standard engine hoist backward.

"Backwards" Engine Hoist Makes A Great Shop Crane

"I came up with a portable shop crane by turning a standard engine hoist backwards," says Steve Brouillard of Early, Texas.

"The engine hoist worked great for lifting engines, but was not so great as a utility hoist because the legs kept me from getting close to what I wanted to lift," says Brouillard.

He solved the problem by turning the mast

around and adding a big chunk of I-beam as a counterweight to the other end. He also welded the folding frame together to add rigidity and stability to the hoist.

"For an additional \$100 I replaced the original hand-pumped hydraulic lift cylinder with an air-over-hydraulic cylinder, to speed up the lift," says Brouillard. "I also added

'remote' operating rods to the crane's air valve and hydraulic release valve, which allows me to operate both valves from the front of the unit while controlling a load. I also welded a 'T' handle onto the I-beam counterweight, which I use to roll the unit around."

While the original hoist was rated at 2 tons,

Brouillard says his redesigned model will lift 800 lbs. "If I need more capacity I can simply add more counterweight," he says.

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