Company's Rebuilt Augers Work "Better Than New"

Minnesota farmer Dennis Skaro says, "When metal augers have excessive wear, they need to be repaired or replaced or they'll damage grain and cost you a bunch of money."

That's why Skaro likes Princeton Flighting, an Illinois company that repairs augers with conventional helicoid flighting or its patented Super Edge™ flighting that's up to 50 percent thicker at the exact location where the greatest wear occurs. The added strength is achieved through a patented cold rolling process that doesn't add extra weight. Super Edge flighting is a major advance over standard helicoid flighting and can be incorporated without modifying existing auger specifications.

The raised edge formed by Super Edge flighting is formed integrally during the manufacturing operation and isn't just a strip attached with a secondary weld. This edge process improves auger performance because of greater wear resistance and gentler grain handling. The process combines dimensional precision with a high quality surface finish rolled to CEMA standards and OEM specifications. Flighting is 30 to 50 percent thicker at the main point of wear and the precise thickness gain depends on the flighting dimensions.

Super-Edge flighting can be applied on left or right hand, standard pitch, short pitch, long pitch, cupped or ribbon augers from 3 to 40 in. in dia. The maximum flight diameter for conventional helicoid flighting application is 42 in. and the maximum strip thickness is 0.5 in. in coil form and 0.75 in. in bar form. The maximum flight diameter for a stainless steel auger is 30 in. and the maximum strip thickness is 0.25 in.

Princeton Flighting Corp. repairs augers with conventional helicoid flighting. Its Super Edge flighting is up to 50 percent thicker where the greatest wear occurs.

The cost for flighting repair depends on the length and diameter of the auger. A price quote is provided by the company after specifications are given over the phone or on the company's website.

Contact: FARM SHOW Followup, Princeton Flighting Corp., P.O. Box 599, Princeton, Ill. 61356 (ph 815 872-1431; www.princetonflighting.com).

Babbitting Expert Says His Services Still In Demand

Rod Gaffrey keeps busy doing every kind of Babbitt replacement, from tiny bearings for rods weighing a few ounces to rods that are 3 ft. long and weigh 75 lbs. He has done work on rare one-of-a-kind antique car engines, airplane engines and old V-8's.

"I have to be ultra careful with lots of the work I get," says Gaffrey. "You can't just go to a hardware or auto store for a replacement. They're all pretty challenging."

These 30 60 Mogul main bearings were rebabbitted and finished to size.

Gaffrey started out in an automotive and diesel machine shop in 1970 and taught himself Babbitting as a sideline niche. He describes it as "learning by trial and error." He does rebabbitting of insert bearings, connecting rods, blocks and cylinder sleeving as well as antique engine repair.

"There are absolutely no shortcuts. If you try to rush it, you'll have to do it over," he says. "If you want to get rich, find another occupation. If you want to get tested, then Babbitting may be your thing."

Babbitt metal is a matrix of hard and soft materials. Used in bearings, as the shaft turns, the friction melts the soft material (usually tin, but can include lead), lubricating the shaft as it's supported on the still-hard materials. Gaffrey notes that Babbitt metal is still used commercially in large generators at hydroelectric dams and other heavy equipment.

He uses several grades of the alloy of tin, copper**,** antimony and trace elements, but never uses lead. He buys and melts Babbitt for each job, heating it to 750° to 1,000°F depending on the alloy. Before doing it, he cleans and dries the parts to be filled. That includes heating any tool that will be used in the hot Babbitt.

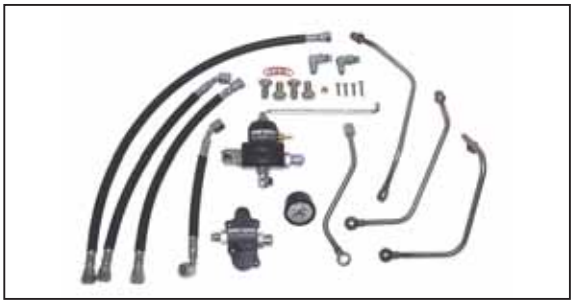
"If you don't heat a ladle before putting it into molten Babbitt, the moisture in the pores will make the Babbitt come out of the pot like lava from Mt. Vesuvius," says Gaffrey. "It can blow the Babbitt right out of the pot. You have to get the ladle hot first to bake out any moisture."

That is one reason Gaffrey urges anyone who tries working with Babbitt to wear protective clothing and face shields. "When I see people on YouTube with no face shield or gloves, I wonder how stupid can they be."

Gaffrey says he has done work for people in 45 states, a number of Canadian provinces and a number of countries overseas. Because each job is unique, he says it's hard to give prices for what he does.

"If you need Babbitt work done, give me a call with all the measurements and whatever information you have on the part," says Gaffrey. "I have engine bearing books going back to 1913, so between us, we can sort through what is needed. "

Contact: FARM SHOW Followup, Gaffrey Babbitting, 12023 Bearingsmith St., Deadwood, S. Dak. 57732 (ph 605 578-1057; bearingsmith@yahoo.com; www.gaffreybabbitting.com).



Strictly Diesel kit is designed to solve fuel line problems with older Ford Powerstroke engines.

After-Market Fuel System Solves Powerstroke Problems

Strictly Diesel has the answer to fuel line problems with older Ford Powerstroke engines. The company makes and markets the "Driven Diesel Regulated Return" fuel system kit that helps the engine run better and components last longer.

"Our kit improves fuel flow and pressure, reduces noise and improves throttle response and economy," says Dennis Schroeder, co-owner, Strictly Diesel. "We discovered over time that the more consistent flow and pressure also enhanced longevity of the injectors."

Schroeder says problems with the Powerstroke started when Ford switched to a dead-head fuel system in 1999. The only change Ford has made since to improve the fuel system is a change to a long lead injector.

"I was part of an internet community in 2000 and 2001 that tested solutions and exchanged ideas on solving the problem better than Ford had done," says Schroeder. "As a result, some of us started producing a quality kit for Powerstrokes. As the engines evolved to higher horsepower, we changed to match the bigger injectors and turbos."

The kit eliminates the dead-head stock fuel rails and provides adjustable fuel pressure. It ties the ends of the fuel rails through a bypass fuel pressure regulator. Larger, high-flow units that eliminate restrictive check valves replace stock fuel lines and banjo bolts.

Today the kit works as well on from-the-factory engines as on 600 hp modified engines. The standard kits include CNC bent stainless steel tubing and braided Teflon hoses, custom stainless steel banjo bolts, a billet-aluminum adapter and a Fuelab pressure regulator. They range in price from $569.95 to $674.95.

"Use of the kit eliminates the stock fuel pressure regulator assembly completely," says Schroeder. "It's an especially good investment for older engines as the components have aged. Installing a kit now will give an even better return than it would have when the engine was new."

Schroeder says shade tree mechanics should have no problem installing the kit themselves. Driven Diesel provides detailed directions with pictures.

"It's a detailed installation, and most plan to take a full day doing it," says Schroeder. "The more experienced you are, the faster it will go."

Strictly Diesel also offers kits and components to convert 1994 to 1997 Ford Powerstroke truck engines over to electric fuel pumps.

Contact: FARM SHOW Followup, Strictly Diesel, Inc., 621 W. Lone Cactus Dr., Phoenix, Arizona 85027 (ph 623 582-4404; www.strictlydiesel.com).

Adrian Flath made hangers for his vehicle hoist so he can pick up his riding mower by the wheels.

"Lift Hangars" Make Mower Maintenance Easier

"I wanted to lift my mower to clean the deck and do other maintenance," says Adrian Flath of Evans Mills, N.Y. "So I made hangers to fit my lift and pick the mower up by its wheels."

He welded up two different sizes out of 2-in. angle iron to fit under the front and back tires. The other end of the hangar slips over the pads on his 12,000-lb. vehicle lift.

"When I'm done, I pull the hangars off the lift so it doesn't tie the lift up at all. They're light and easy to store," Flath says. "I could make hangars to use it for other equipment, too."

Flath has used the lift for two years to keep his zero-turn Ferris mower (with a 35 hp, 3-cylinder CAT engine) in tiptop shape. Besides cleaning the deck, it makes it easy to change the blades and make adjustments.

One end of hangar slips over pads on lift.

"I'm taking good care of my mower so it will last a long time," he says.

Contact: FARM SHOW Followup, Adrian Flath, P.O. Box 125, Evans Mills, N.Y. 13637 (ph 315 629-4355).