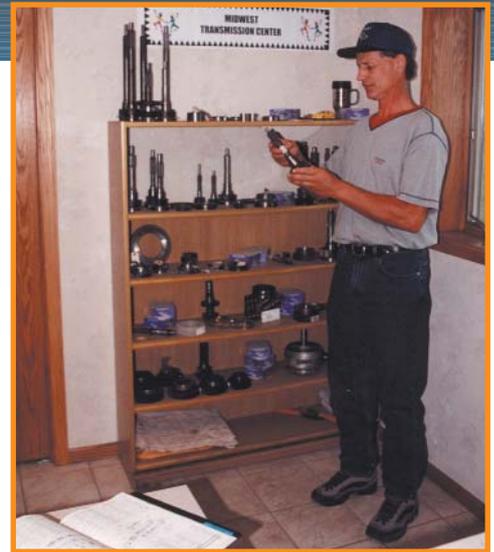


Serving Manual Markets



Ray Schoenfelder has spent the past 20 years rebuilding and designing parts for manual transmissions and gearboxes.

Ray Schoenfelder grins and exclaims: "Competition always makes you better! It makes the industry better too!" He is ready to explain the role competitors play in motivating his company, how sometimes they supply it and how they often become customers for products supplied by Midwest Transmission Center. The manual-transmission rebuilding and parts operation based in Zumbrota, MN, opened in 1996.

Although he's been involved in the manual-transmission aftermarket for more than 20 years, Schoenfelder didn't grow up in the business. After high school he joined the Air Force and was trained as a specialist in integrated avionics. Seeking opportunities after his enlistment, he went on to complete training as a machinist and in design engineering, both useful skills for the business he now oversees.

Midwest is Schoenfelder's third transmission business and is, by his evaluation, the most successful. Situated near the southeastern corner of Minnesota, the business serves a multi-state regional area and delivers product by UPS or common freight carriers throughout the United States and Canada.

"It's a specialized product line we offer," he explains. "We do all manual transmissions and transfer cases – foreign, domestic, front-wheel-drive, all-wheel-drive, rear-wheel-drive and four-wheel-drive. We don't handle differentials here. We're producing around 8,000 units a year, including both transmissions and transfer cases.

"We've had to make decisions to stay focused, specialized and to keep ourselves the best in the country at doing what we do. We don't do any differentials, automatics, driveshafts or axle shafts, even though those items fall in line with our work. We want to stay more highly specialized. Our vision is very specific and narrow: manual transmissions and transfer cases, and that's it."

Specific as it may be, the business occupies more than 22,000 square feet spread among three separate structures. The headquarters building includes administrative and sales operations, shipping and receiving department, rebuilding and parts operations, and some core storage. An additional building (7,500 square feet) is devoted to storing cores, and a 5,600-square-foot facility houses the machine-shop operations.

There is, it turns out, a little more to what's going on at Midwest than rebuilding manuals and transfer cases. Schoenfelder makes his design and product-engineering skills available to other companies in the industry that are



An extensively customized Axi-Line dynamometer allows the operator, Tom Stofferahan, to sit in a simulated cab, simultaneously shifting the transmission and monitoring the analytic read-outs.

Alternative-Fuel Applications

On the day we visited Midwest, Ford announced continuing efforts to deliver a hybrid vehicle to the marketplace in model year 2002. Schoenfelder shared some of his knowledge on the subject:

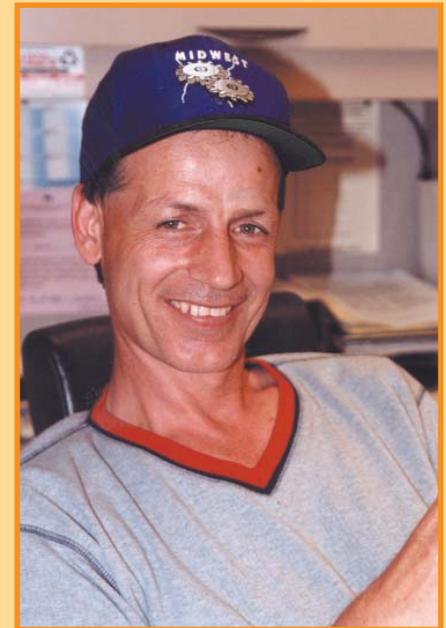
"There will be gearboxes until they quit producing vehicles. That's the best way of delivering power to the drive wheels.

"Hybrid is the most-popular version of alternate-fuel vehicles. Electromotive vehicles suffer from the age-old problem that when you change from one form of energy to another, you lose some. What the hybrid-vehicle concept provides is a relatively small – 1,300 cc or so – engine that handles low-demand situations. Then, when more speed or more power is required, electric motors on the drive wheels provide assistance. You get by with as small

a motor as is possible, which increases your gas mileage, and yet you still have the power from the electric motors to get around and pass. That's why we've needed bigger engines in vehicles. It's for when you've got more load, going up a hill or trying to pass. Anytime a piston goes up, loaded or not, it's using fuel. The smaller you make the engine, the less fuel you're going to consume. It's a very good concept that calls for the electric power only when needed and that charges the electric system from the small gas engine.

"The hybrid vehicles coming in the near future are entry-level vehicles designed for short-range, commuter operation. If you look 20 years down the road this market will be changing, and we, like others, will need to maintain the flexibility to change with it. It may

be that we see the new CVT units, but there are still gears inside with a steel chain or belt in it."



Ray Schoenfelder

seeking to improve on manual OE designs.

"If it wasn't for the development work that we do, there'd be a lot of companies that wouldn't be able to do what they're doing," he said. "Providing that work is good for us as well; we get some of the benefits too. You ask yourself the question, 'Are we just going to keep supplying the same part that fails all the time?' Obviously that gives you some



Wayne Simonson packages an outgoing shipment. In addition to serving the Minneapolis/St. Paul area with a daily truck, Midwest ships parts and rebuilt units via UPS and common-carrier freight lines throughout the United States and Canada.

level of job security, but does that really serve the industry properly? We're trying to take the mistakes or weaknesses of design that come from the original manufacturer of the unit and make changes that improve transmission life. The customer can expect to receive a fair price on something that will last as long or longer than the original unit. Even though the parts were originally designed by the OEs, I think the aftermarket has taken a bad rap on some of these quality-related issues in the past."

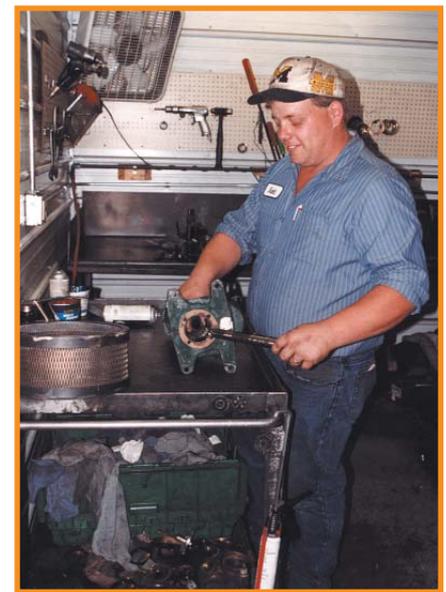
Although the business has grown rapidly, Midwest



Leah Schoenfelder, Ray's daughter, looks after administrative matters, including order tracking and bookwork.

Transmission remains very much a true family business. Quite a few of the 25 people employed by the company are related to Ray and Cheryl Schoenfelder.

The rebuilding operations are managed by Scott Schleck. Asked



Production manager Scott Schleck keeps the conversion processes of rebuilding units and reclaiming parts in step with customer orders.

Midwest Transmission Center

how he decides what the builders will be rebuilding on a given day, he explains: "We've been so busy that we're building directly to fill orders. In a way, that makes my job of deciding what will be built each day much easier. With an inventory of more than 15,000 cores we can find most of what we need from within our own stock. Occasionally we'll have to locate a core before we can fill an order for a rebuilt unit. We run through between one and two semi-loads of cores every month. That's a lot of cores!"

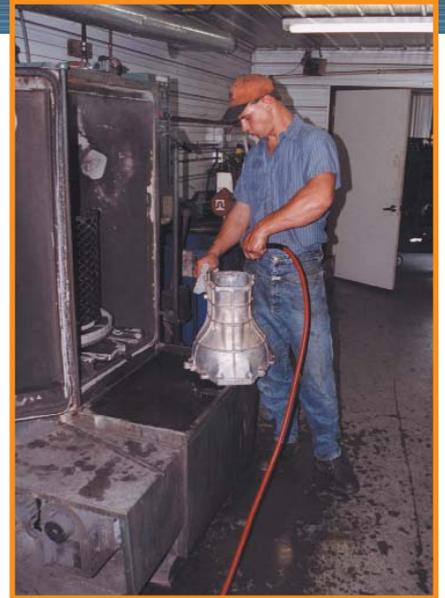
Not every core arriving at Midwest is rebuilt, Schoenfelder notes. "Some of the cores we purchase are broken down and sold

as good used component parts. They're taken apart, cleaned and then inspected for any problem areas. If the part passes inspection, we can sell it. We also stock and sell a large quantity of new parts."

The company finds that sales of both parts and rebuilt units follow similar patterns. About half of the volume is sold in the regional area, with most of the remainder shipped to distant points in North America. There even are some rare, but growing, export sales.

Schoenfelder details his customer base: "We sell to automobile dealerships, directly to transmission shops, to some large-scale retailers, even to salvage

yards, who purchase rebuilt transmissions and transfer cases. It may be that a salvage yard doesn't have a particular used transmission and we've made them aware that a rebuilt unit is available, so they'll buy it from us to serve their customer. And many customers, even in salvage yards, prefer a rebuilt unit to a



Whether a core is to be rebuilt or harvested for parts, the first step is a thorough cleaning (Jeff Schoenfelder).

used transmission of indeterminate quality. In effect, considering our core sources, we both buy from and sell to the salvage yards.

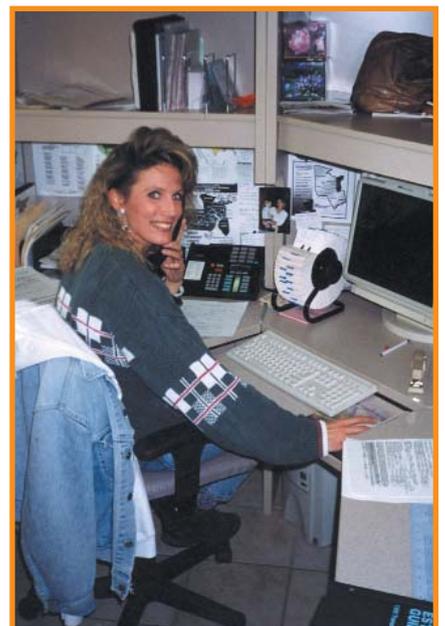
"The way we determine our pricing structure is to evaluate the used-transmission market. If a 5-speed GM truck unit is selling for \$800 at a salvage yard, that becomes our focus point for a wholesale price. We strive to create our remanufactured unit for that same



Teri Ebling handles customer orders at Midwest.

Snowmobiles

Living in the upper Midwest affords Ray Schoenfelder the opportunity to pursue an active interest in snowmobiles. He rides them, tinkers with the insides and recently has opened an Arctic Cat dealership in a building adjacent to Midwest Transmission Center. He already has applied his design-engineering talents to this sideline business. "In the near future there will be a revolutionary new drive unit powering these vehicles," he says. He has patented the new design, and a snowmobile OEM has bought it.



Lorlie Schoenfelder's tasks include sales and customer service.

Midwest Transmission Center

price. It gives the incentive to our customers to opt for the remanufactured unit over the salvage-yard used unit. Now obviously that means that sometimes our margins are very small. Other times, when there is a



Twila Simonson, office assistant

shortage of used units, we'll have a much better margin."

Managers at Midwest are convinced that reliability plays an important role in their product-line success. Each unit visits the "dyno room" for testing before being released to a customer. A technical-assistance line allows customers and potential customers to call an expert at the company and find help with application and installation information.

Dan Schoenfelder handles many of those technical questions. "We probably answer five or six per day," he said. "A lot of those are looking for information or are trying to figure out what to buy.



Connie Rude, salesperson

We'll answer any question, even if they have somebody else's unit. In the long run they'll remember that we were able to help them, and that will mean business for us in the future. Over half of the calls are pre-installation."

Schoenfelder adds:

"Every one of our units is tagged with a dyno tag and an oil-fill tag that gives the amount and type of oil that it needs. Still, there always seems to be a question or two we need to answer for the customer.

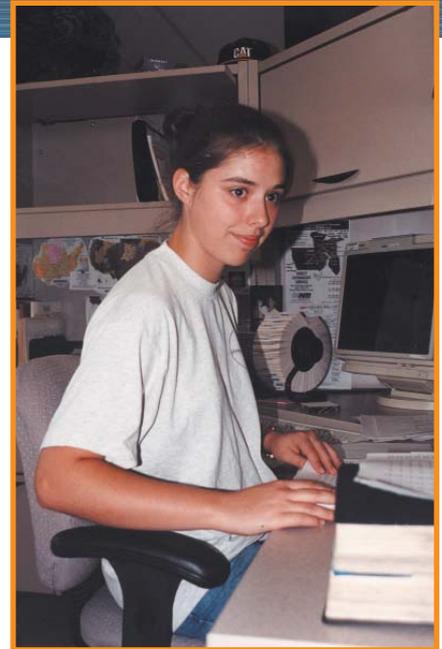
"With the dynamometer testing we have very few returns. There are so many fewer variables to worry about

with manuals than you have with automatics. I would say that with the testing we do we have a very low comeback rate.

"We offer a one-year unlimited-mileage warranty. We are also offering a labor warranty as an add-on item. So far, only about 5% of our customers have taken advantage of the labor warranty. A lot of that resistance has been because of experience with our dynamometer-tested units. They know it's unlikely they'll see a comeback anyway. Therefore, that's money they don't really need to spend. If they want to, they can take that warranty and pass the cost through to their customer, but there just aren't that many returns."

Schoenfelder concludes with a thought that this aftermarket industry is unique in the level of cooperation and interdependency between competitors.

"It's an interesting niche we're filling,



Andrea Simonson helps keep the office work up to date.

because most of our competitors are also our customers," he told us. "Furthermore, we buy products from our customers, just as they buy products from us. We think we sell to competitors because we tend to be innovators in the industry. That's what the industry needs more of: cooperation rather than division. This industry needs to create a cooperative situation where we are all striving to give the customers what they really need. Our philosophy is to be more of a partner than a competitor in this marketplace. We can sell and we can buy, and that's good for everybody, including the customer.

"Because of the level of competition in our industry you have to locate or create a product that can be sold at a competitive price. That drives a lot of the phenomenon where we end up buying and selling to each other. What one person has and another person needs drives a transaction. The manual-transmission segment is a very close-knit group of companies; everybody knows each other. It's not like competing from afar. We all know what each other is doing and what each company has that's a superior product." **TD**