

Responding to Rebuilders



The quality and development lab features a variety of equipment for assuring that production lines continue to maintain tight tolerances.

rebuilders, has remained constant through the years. "I told an industry friend about taking this job. He commented, 'Leave it to you to find an aftermarket company that's still growing!' I took that as quite a compliment to this company.

"Tommy and, for that matter, all of us are truly interested in finding ways to continue our growth. I think the entrepreneurial character of Sonnax serves us well and allows us to keep developing niche product lines targeted at aftermarket specialists."

Steve Jausaud, Sonnax vice president of sales, observes that the company is maintaining a growth rate of around 8%. Even as aftermarket business has slowed in the U.S., international interest in Sonnax product lines continues to grow at a healthy rate.

Sonnax is best known for its lines of components used by

Both rapid and accurate, an automated order-fulfillment process finds and delivers parts to the operators and carries orders on to the packaging area.

"I'm having a lot of fun doing this," says Sonnax Industries President Tommy Harmon in his office at one of the two Sonnax facilities in Bellows Falls, Vt. At the time of our last visit here (*Transmission Digest*, November 2005), Harmon and a partner had just bought Sonnax from founder Neil Joseph. Since that time Harmon has acquired the partner's interest as well.

"Sonnax isn't about any one individual," Harmon continues, "certainly not about me, but about the teamwork and synergy that have developed from remarkably talented people working together toward common goals."

A recent addition to the Sonnax team, industry veteran David McGee remarks that the company's tradition of developing unique products, especially for valve-body and torque-converter



Part of the driveshaft product line, these yokes await final manufacturing processing before being shipped to rebuilders.

torque-converter rebuilders and its Transmission Specialty (TS) line of products for transmission rebuilders. A large percentage of TS products focus on valve-body wear issues.

"When this line was brand new," Jaussaud says, "rebuilders never thought they'd see a time when they'd be reaming bores and remanufacturing valve bodies to the extent that it's done today. The first people to accept that idea were our volume-rebuilder customers who recognized the economic sense of making sure the valve body was up to specs before it was reinstalled. Over the years, it's become accepted practice throughout the industry, and the TS line has exhibited phenomenal growth.

"The thing I find fascinating about those specialty parts is that I grew up working in my father's

transmission shop, where I was a torque-converter builder. We purchased our converter components from Sonnax. Then they developed this TS line that actually solved a lot of converter complaints for us. There's only so much that can be accomplished by rebuilding the converter. Sonnax looked beyond that individual component and engineered transmission parts to address converter problems that weren't being solved by rebuilding."

McGee, vice president of marketing and strategic development, explains that often there were symptoms that appeared to be problems with the torque convert-



Members of the engineering department gather in the hall where many of the patents granted to Sonnax are displayed.

er. Many of these actually could be traced back to wear in that portion of the valve body where converter-clutch or lockup applications were controlled. A perfect torque converter would appear defective unless the upstream problem was addressed in the valve body. "I think that's what might be called a holistic view of the transmission system."

Scott Hagland is product-line

Lean Manufacturing Applied

"We've paid a lot of attention to lean-manufacturing [a term describing efficiency methods applied to manufacturing and other processes] tools to make our 160 employees more productive as opposed to growing the size of our staff," Sonnax President Tommy Harmon says.

"We looked to eliminate waste in our processes. It's not right to pass waste on [in our prices] to the customer, and it's not right to let waste lower our own profitability. I appointed Ben Wallace, a 'lean' guru, to be responsible for continuous improvement. A former manufacturing engineer, Ben took the charge seriously and enlisted help from the Vermont Manufacturing Extension Center, a private organization that is state funded to help small businesses improve themselves. Sonnax has become one of their poster companies because of the improvements we've been able to implement toward eliminating waste in our processes.

"We started in our packaging layout, improving setups, reducing cycle time, eliminating wasted movement of people and products, and addressing inventory levels.

"I think the most-important thing we've done was to concentrate on our product-development area. This one is challenging in that it's very difficult to measure.

"We have had great ideas for new products from our engineers, the TASC Force, from customers etc., so many ideas that we had come to a crawl in translating them into products. Instead of taking weeks, our development time was months and, in some instances, years to get something developed.

"We set a goal for a tenfold improvement in average product-development time. And so we set out to make the workflow from person to person more coordinated and therefore efficient.

"We found that we have extremely talented people here who were

being crushed by a system that wasn't allowing them collectively to achieve their full potential. One of the most-productive changes we made in this area was to take a more-global view of the products we had under development. Often there are families of products that can be collected together; for instance, six or seven components for a specific valve body. These will share some development tasks in common; say, developing a product-marketing piece or the in-package instruction sheet. By collecting the products together, we work on those common tasks once for the group of products rather than for each individual component.

"When we started, our development cycle was approaching two years. In some of the most-successful results of our efforts, we've taken that down to six or eight weeks on even some complex projects. Organizationally, it's about eliminating obstacles and allowing project managers to get the work completed. Paying \$200 to expedite getting a tool made in a couple of weeks rather than 10 weeks may cost more, but ultimately it's to market quicker, resulting in a new revenue stream.

"Last spring we completed, in a cycle of about eight or 10 weeks, a grouping of parts for the Aisin Warner 55-50 family of transmissions. That's a hugely popular line, one that is showing great demand worldwide. Had we not applied the lean methods to improving the process, we'd be more than a year away from being able to provide that to our customers."



Sonnax President Tommy Harmon says, "There's every reason to expect Sonnax will continue to grow and prosper."



Industry veteran David McGee recently joined the company as vice president of marketing.



Steve Jaussaud, sales vice president: "Sonnax looked beyond individual engineered transmission parts to address converter problems that weren't being solved by rebuilding."



International team leader Joe Lombardi says the company's product lines are finding a growing and substantial overseas market.



Tony Diorio is product manager of the company's newest rebuilder line, drivetrain products.



John Sackevich, co-manager of the torque-converter product line



Patricia Kinney, co-manager of the torque-converter product line

manager for the TS line currently counting about 600 active part numbers. "The line continues expanding," he says. "Much of our development attention at this time is focused on components used by our international clientele. This would include a lot of parts for ZF, Aisin Warner and many newer transmissions.

"We're supporting our international growth by conducting a number of seminars around the globe using Bob Warnke [vice president of technical development] and Gregg Nader [Sonnax technical specialist] as well as Reese Blaylock, who leads seminars for us in Mexico. Most recently, Bob gave valve-body training and seminar sessions in Australia while Gregg was in Russia also offering hands-on valve-body training.

Joe Lombardi, international sales manager, points out that growth in world demand for Sonnax products hasn't been exclusive to the TS line. He explains that every one of the company's main product lines continues to achieve

rapid growth as the rebuilders around the world come to know, use and develop a preference for Sonnax products. International growth is especially evident for the specialized Allison line of transmission and converter parts for rebuilders of AT, MT, HT and Allison World transmissions. The Allison line, initially governors and oil pans, has been adding more hard parts to address growing rebuilder interest both at home and abroad.

The Sonnax TASC Force, formed to combine the technical expertise of Sonnax engineers with the hands-on experience of accomplished rebuilders, continues to tackle rebuilding problems, converting them into product solutions for the industry.

"I think," Hagland says, "as the TASC Force has matured, the ideas and fixes that come from the members are more sophisticated than in the early years. The meetings tend to be a mixture of hands-on learning seminars and sessions to generate ideas for the product-development team.

Rebuilder problems are identified by the technical team, and then product ideas are launched to address those problems. At that point, it becomes our job to develop, test and market that solution in a timely manner so that the customer has a fix to apply to rebuilding challenges he's facing."

Nearly 2,000 components are contained in the company's torque-converter product line, the responsibility of John Sackevich and Patricia Kinney. Sackevich reports: "We continue to develop the necessary rebuilding components for late-model converter applications. This brings us into the realm of six-speed applications, where we're already at work to create the aftermarket products the industry will require when those units start showing up for repairs.

"And, there are challenges relating to the multi-clutch applications as well.

"We're developing products for all of those units and updating the online catalog at www.sonnax.com, which is a quicker method for getting information into the marketplace than the more-traditional method of mailing brochures to all of our customers. After a number of years where using computers for information reference and transfer was slow to gain popularity, it's amazing at how quickly we find our customers adopting those systems now."

Jaussaud continues: "When you have greater requirement for gear space, there ends up being less space to house the converter assembly. Converters are being designed flatter and flatter to allow for the space requirements that come from more speeds, which increases fuel efficiency. I was visiting a converter OEM yesterday, and some of the units they're introducing soon are unbelievably flat."

Pat Kinney reflects that developing parts for new converter applications is only part of the department's tasks. "We're also developing unique fixes to address

some widespread problems the industry experiences. For instance, the 5R55N/S/W has a noise problem that we're addressing with a conversion damper."

Kinney adds: "This morning, Ed Lee [technical specialist for the converter line] and I were discussing some stator issues that we're addressing on Ford applications that go all the way back to the C6. Of course, those units share common parts with other transmissions so that common problems can be addressed with common updates."

Bolstering the success of the converter-parts line is an exclusive distribution agreement that designates Sonnax as the sole and exclusive aftermarket distributor of the popular Raybestos line of converter friction materials.

Sackevich observes that in today's marketplace converters first introduced in non-domestic markets often make their way to domestic-automaker assembly lines. "In the past we might be slow to address 'world converter' applications, thinking we'd never see them in this market. We now observe these units eventually make their way here, and as a result we are paying more attention to units introduced elsewhere."



Transmission Specialties Engineering Manager Scott Jackson working on a prototype



Timothy Buzby operates one of several CNC machines at Sonnax. Today's production order calls for driveshaft components.

There are about 130 parts comprising the company's High Performance line, which has a reputation for development of Powerglide components for use in racing applications. Product manager Rick Willson says the line is being expanded to serve other popular racing applications, most notably at this point the 4L60-E and several performance units that pair with diesel engines.

In the past couple of years, two related product lines have emerged to serve yet another niche group of rebuilders. Tony Diorio oversees the drivetrain-products line.

"We entered a new area for us by manufacturing driveline components," he says. "Our focus is supplying components to the very specialized rebuilders of aluminum driveshafts. We've filled out the line quite well. A great deal of our product feeds into the high-performance segment of the aftermarket. These special applications include oval-track racing, street rods. The remainder of sales is more of a commodity OEM-replacement line for vans, pickup trucks and the like.

"The line consists of driveshaft aluminum tubing, yokes and weld ends. Additionally, there's a product line emerging that we call the Power Train Saver. The torque-fuse device is welded into the existing driveshaft and relies on a system of three shear pins. The

pins have a calculated shear point in terms of torque level and will shear out at exactly that point. We're marketing those to heavy-duty fleets like sanitation trucks, cement trucks and similar applications."

Concluding our discussion, Harmon observes: "I look at the remarkable blend of people we have. Many are native to this Vermont area and have learned the specifics of the transmission industry during their long tenure. Others, like Bob Warnke, Steve Jaussaud, David McGee, Ed Lee, Gregg Nader and others, are people whom we've hired because of their expertise with the products. These people have complemented one another's efforts. Scott Jackson and Maura Stafford, for example, are remarkably talented development engineers. But, they became so much more productive after we added Bob and Gregg, whose wealth of specific transmission-industry knowledge enables our engineers to develop great products more quickly.

"With the team of people we have working together, I think there's every reason to expect Sonnax will continue to grow and prosper. There really isn't any limitation to what they can accomplish. My job is to make sure that we empower them to do what they do and to remove the roadblocks and bottlenecks that can get in the way." **TD**