

Chopping it up

Mini-Chopper program helps build student enthusiasm for manufacturing BY BARB AXELSON

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– Tom Ellenbecker, Mishicot High School principal

AN INNOVATIVE PROJECT IN Manitowoc County aims to rev up an interest in manufacturing among young people – helping to propel them toward the technical careers that need skilled workers.

The Mini-Chopper program currently operates in four Manitowoc County schools with help from the local Chamber of Commerce, the Economic Development Corporation (EDC), Lakeshore Technical College (LTC) and local company sponsors.

Student teams design and assemble mini-choppers, or small motorcycles that incorporate corporate sponsor logos, to exhibit each spring at the Annual Northeastern Wisconsin Charity Motorcycle Show, sponsored by the Ant Hill Motorcycle Club, Ltd., and Hoban’s Cycle on Osman.

The project started 10 years ago at Appleton’s Fox Valley Technical College (see sidebar). Karen Szyman, executive director of the Chamber of Manitowoc County, says, “Each bike is different; all are beautiful. They incorporate sponsor logos and colors (for instance, on seat covers or gas tanks).”

The choppers may sport components from sponsoring companies, such as lug nuts or metals. Bikes are displayed at the Chamber and EDC and have been shown at the Manitowoc County Fair, as well as in sponsors’ lobbies and showrooms.

Student work is monitored. Production adheres to a timeline with reports on tasks accomplished, particular challenges, plans and



COURTESY, TWO RIVERS HIGH SCHOOL

Students at Two Rivers High School build a mini-chopper, a program launched at Fox Valley Technical College and brought to Manitowoc County to help engage young people in manufacturing and help open up future career options for them.

budgeting. Representatives from sponsors stay in close touch with students and teachers, who spend weekends and evenings on the project, particularly as April nears.

“It’s an absolutely phenomenal opportunity for kids through the course of a year to produce the end product of a motorcycle step-by-step,” says Mishicot High School principal Tom Ellenbecker.

Last year around 70 students applied to join a team, which they do the spring before they undertake a project. They planned and streamlined production with help from tech ed teachers, corporate mentors and Ant Hill Mob bikers, who are primarily Harley riders.

LTC opened its facilities and also presented classes on safety, and junior college credits were available to students.

Mini-chopper's origins

A decade ago, Fox Valley Technical College staff members discussed what they could do to interest young people in manufacturing. They ultimately took an idea from the Discovery Channel program American Chopper, then in its first season, to launch a mini-chopper project in which high school students were invited to the college every week to assemble motorcycles. That project, now on hiatus, ran through 2010 and will pick up again in 2014.

Mike Cattelino, associate dean of FVTC's Manufacturing and Agriculture Technologies Division, recalls, "We put the project together; we had all the technology and expertise. Each team had a local sponsor, and bikes were to be themed."

Lakeshore Technical College and others throughout the state expressed interest in the project. "I said, 'Here's my zip drive; there are no secrets here,' and met with them," Cattelino remembers. "We're all in the same boat and we wanted to expose young adults to manufacturing opportunities."

He notes that tech ed programs are expensive and thus subject to cutbacks, and says, "It's good to keep it going."

Subsequent FVTC manufacturing-related programs include Light up the Fox, in which high schools from Appleton East, Little Chute and Hortonville work with the college's Automated Manufacturing Systems program to devise and implement a lighting system along the Fox River in the greater Appleton region.

Additional initiatives include summer camp programs:

- » Intro to Manufacturing Concepts: Guitar Building
- » Solar Energy Exploration
- » Wind Energy Exploration (both Basic and Advanced)
- » FoxBot Robotics Camp for Girls
- » Exploring Transportation Careers: Build a Remote Control Car

Some high schools possess cutting-edge equipment and computer-aided-design systems.

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technical education teacher on the project, says, "Some things we struggled with, but our bike looked phenomenal. We produced a unique hubless rim with no axle through the middle. It runs on a large bearing. A student saw this on YouTube. We worked hard and networked; next year will be easier. I learned as much as the students. It was cool to see and the adults were just pumped!"

Although the bikes are not street-

Chopper help

The latest Manitowoc County Mini-Chopper program corporate sponsors, who contribute \$2,500 each, include:

- » HMF Metal Finishing, sponsoring Two Rivers High School
- » LTC, sponsoring Valders High School

- » Miller Ag-Bag, sponsoring Lincoln High School
- » Dowco, Inc.; Manitowoc Motor Machining & Parts, Inc.; Eis Implement Inc.; and Mishicot School District, sponsoring Mishicot High School

legal, they are suitable for parades and company advertising. During a special unveiling ceremony at the Manitowoc County Ice Center, the

students simultaneously revved up to roar along with the applause from some 350 onlookers. Scholarships are also announced.

The HMF family of companies in Two Rivers has now sponsored four bike teams. Owner Dave Wage keeps a bike at each of his companies and calls them great conversation pieces. The bike sponsored by Heavy Metal Fabricators used welding torch tips as tail-light cones, and the Formrite sponsored bike this year employed stainless-steel-wrapped hydraulic hose. Wage says, "The kids have a high sense of ownership and they take the project more and more seriously as they go along."

"We are proud to support the Mini-Chopper program because it's important to create interest and excitement about manufacturing in our high schools," says John Miller, president/CEO of Miller-St. Nazianz, Inc., who is an alumnus of Lincoln High School. "Manufacturing is vital to Wisconsin's economy and the program helps create a pool for future manufacturing employees."

Although last year's Miller-sponsored bike stands at the front area of the company, this year's was still at school where additions such as a sidecar were being implemented.

Nathan Brooks, an electrical project engineer, was the liaison between Lincoln and Miller. Students came to the factory several times to see the machines the company manufactures.

Brooks visited the school a couple of times each month to check progress. "We're a forward-looking company; we can show them more than metal cutting and robotics," Brooks says. 

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