

How company strives for controlling mileage

Most people consider that speed and fuel economy are mutually exclusive. The equipment manufactured by a Farmington Hills company, GSE, Inc., was involved in both a high speed event, the Detroit Grand Prix, and a high mileage event, the Society of Automotive Engineers (SAE) Super Mileage Competition, on the same weekend.

GSE provided four of its scale bases to the Grand Prix, along with four digital weigh meters, to be used by any of the crews in adjusting their cars for the Detroit course. The cars were rolled up special ramps provided by GSE so that each wheel would sit on its own precision scale base. The weight sitting on each tire was then read to two decimal places, and adjustments made by "jacking weight" until each crew chief

felt he had the proper distribution. The GSE equipment, set up in Hall D of Cobo Hall, was used by nearly every crew before the week-long event was over.

Charles Moore, sales manager of GSE's scale division, said the only reason it could be pulled off at all was because of a special patented protective device in the GSE scale which allows it to absorb the shock of sudden application of heavy weight without disturbing the accuracy of the system.

Other types of scales need to be mechanically blocked before driving up on them, and when unblocked, they could end up out of adjustment.

About a hundred miles away that same weekend, GSE was helping to establish world fuel economy records.

Teams of college students were competing, all provided with the same model 2-horsepower Briggs & Stratton lawn mower engine, which the students modified in any way desired.

Each team was also provided with a fuel tank filled with fuel from the same barrel. The teams then drove a 9.56-mile course at Eastern Corp.'s proving grounds near Marshall.

The winning team, Team 1 from the University of Saskatchewan, drove the course four times with all four runs measuring more than 1,300 miles per gallon. Their best run produced 1,594.3 mpg was a world record. The previous record had been set a week earlier at a Shell Oil Fuel-A-Thon in Toronto. Each of their runs established new records.

Second place went to Team 2 from

the same school, which produced a run of 1,159.6 mpg.

Both teams were working under the direction of Professor Barry Hertz, head of that university's mechanical engineering department. He pointed out that his students had won the event several times in recent years, and their cars were usually straightforward and simple in design.

Third place went to another Canadian team, students from Ryerson College in Toronto, with a run of 809.8 mpg.

Michigan State's team finished fourth with a run of 709.9 mpg. Their car was equipped with computers which told the driver when and for how long to run the engine on each lap. The cars were so streamlined and had such

low coefficient's of friction that they used their engines for only a few seconds per lap.

The amount of fuel used was determined by weighing the fuel, tank and all, at the end of each run and subtracting from the starting weight.

Precise measurement of fuel is done by weight rather than volumetrically to eliminate the changes caused by temperature and barometric differences recorded throughout the day.

The cars, built of aluminum tubing covered with mylar and running on bicycle wheels, took about a half hour to cover the 9.6 miles. Most drivers drove in a reclining position, usually feet forward.

The rules required the cars to maintain a minimum speed of 15 miles per hour. If they drive too slowly, penalty points are assessed. The winning cars all stayed within the rules and avoided penalties.

"It would have been difficult," according to Moore, "to find a place to

put a bag of groceries in any of the two dozen entrants."

"Teams came from places as distant as Farmingdale University on Long Island, and British Columbia. Other state schools, in addition to MSU, included the University of Michigan, Western Michigan, Michigan Tech, Ferris State, and General Motors Institute," he said.

Missing from competition this year, Moore said, were teams from the University of Detroit, and Wayne State.

"GSE has provided the precision weighing equipment for the past three years," Moore said, "and in that period has seen the winner's efforts, all records, climb from about 840 the first year, to 1,000 the second, to nearly 1,600 the third year."

Moore said that his company's weighing equipment has been used for a number of strange purposes, including balancing a sailplane ballast prior to its setting off on a record-attempting flight, but the equipment is standard stuff sold by the truckload to industry.

Contracts put budget in the air

By Patricia N. Bowling
Novi-Walled Lake News

Walled Lake's school administration last week presented a 1983-84 budget proposal which includes a \$1.1 million decrease from last year in budgeted expenditures for instruction.

The budget also proposes teacher salary cuts, although Russel Wright, assistant superintendent for business, said the decrease in costs will be "recovered through negotiations."

The administration is bargaining with all 10 of the district's employee groups, including the 450-member Walled Lake Education Association.

Superintendent Dr. Don Sheldon told the board and residents at a budget workshop on June 14 that the proposal was as the school board requested: A

continuation of the district's programs and services at the same staff levels as in the 1982-83 school year.

The only reduction from last year's budget, represented in the \$25.6 million general-fund proposal, was a substantial cut in appropriated funds for teacher salaries.

AT A REGULAR meeting, the day before the workshop, board members unanimously approved the retraction of layoff notices for 19 Walled Lake teachers. The budget, as presented last week, includes only 8.5 fewer elementary teachers — these due to declining enrollment rather than budgetary restrictions.

The budget proposal also included one less maintenance person, one less warehouse person and one less library aide.

Sheldon's original budget proposal, forwarded to the board in April, called for extensive program cuts throughout the district. Included in the reductions were central reading services, weekly offerings in music, art and physical education, and the \$500,000 outdoor education facility. In addition, the budget contained no provision for curriculum growth.

The school board finally rejected this proposal after requesting Sheldon and Wright form a budget proposal without program, services or staff cuts.

OCC students graduate

Commencement exercises honoring Oakland Community College's 17th graduating class took place at the Pontiac Silverdome on Friday, June 10. More than 1,400 graduates earned associate degrees in applied science, business administration, general studies, liberal arts and science.

The commencement address was delivered by Theodore H. Mecke Jr., president of the Economic Club of Detroit and former vice president of public affairs at the Ford Motor Co.

Scholarship is awarded

Stacey A. Kugler of Farmington Hills is recipient of a Presidential Scholarship from Northwood Institute.

Stacey is the daughter of Mr. and

Mrs. Charles J. Kugler of Valley Forge in Farmington Hills and graduated from North Farmington High School in June.

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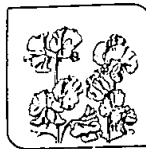
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