

Ags rebuild efficient' car

By GEORGE ROWE
Battalion Reporter

Most Texas A&M University students spend their Christmas vacation with relatives and wouldn't think of spending any of it in College Station.

Some exceptions are a few mechanical engineering students who plan to spend part of their vacation working on an energy-efficient car.

They are rebuilding a Honda Civic, a car only sold in Japan, to enter a contest sponsored by Student Competition on Relevant Engineering (SCORE).

Mike Love, a senior mechanical engineering student, is one of six students working on the car that the Texas A&M team will enter in the contest next August. Love said that SCORE was organized in May of 1977. He said in previous years SCORE held competitions in electric car races, a clean-air car race, an urban car race, intended to develop a car for city use.

The present competition is for energy efficiency. Love said it started in September 1977, and Texas A&M registered for it in March 1978.

Love said the SCORE competition will be held on the General Motors proving grounds near Michigan. Love said that he and other students who worked on the car will drive it to the competition next summer.

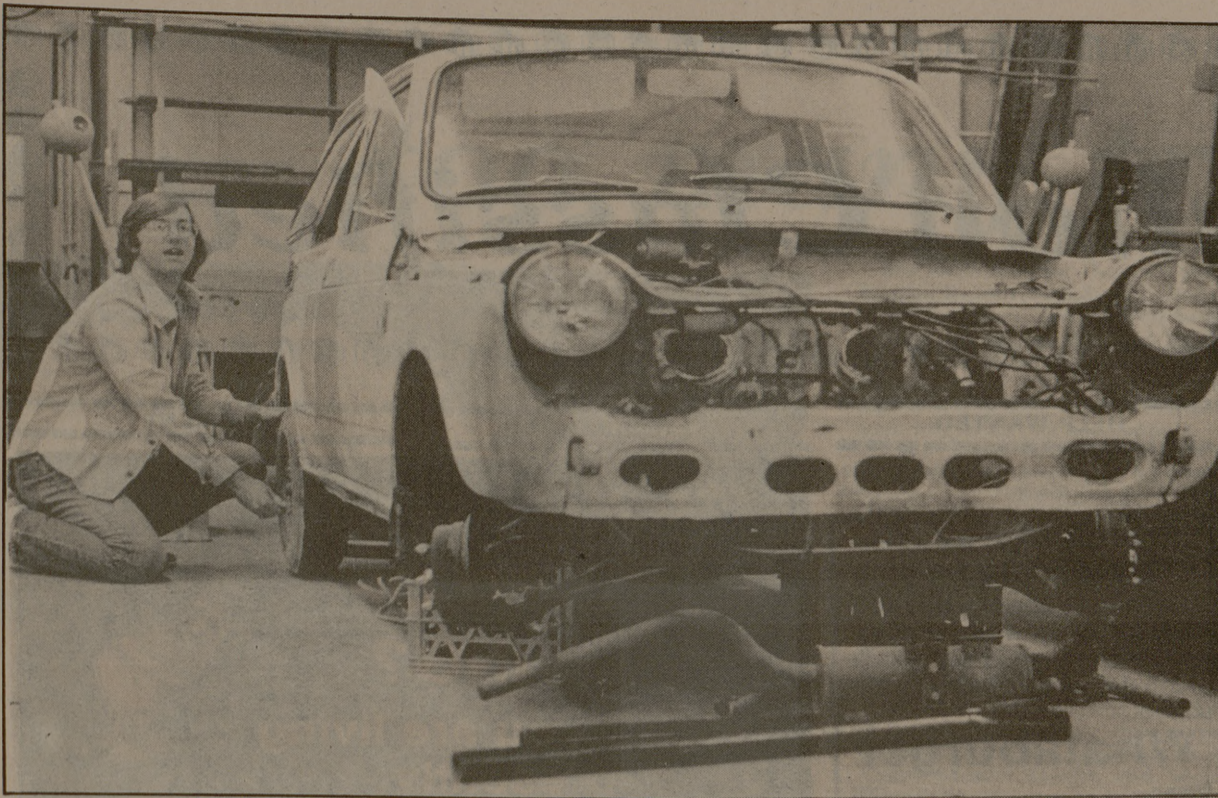
The Texas A&M team car is similar to the Honda Civic, Love said. Mark Dewveall, a sophomore mechanical engineering student who is also involved in the project, said the car was found last summer in a San Antonio wrecking yard.

Dewveall said the biggest problem was finding parts for it because it was a Japanese domestic car that was not exported. He said he doesn't know how it got to the United States. Unlike the Honda Civic, the 360 has two cylinders in its engine rather than four.

"I think we will get it operational over the holidays," Dewveall said. He said they have to put the engine in the car and get the electrical system working.

Love said the Texas A&M team decided to modify an already-built car because, "it wasn't economically feasible to build one from the ground up, so we decided we would try to make a choice of the best car we could and modify it to achieve efficiency."

Love said they will modify the car to run on methanol instead of



Mike Love works on rebuilding old Honda Civic, a car sold only on the Japanese domestic market, for use in an energy-efficient auto

contest which Texas A&M University students are planning to enter.

gasoline. He said that a car modified to methanol will consume a large volume of fuel when compared to gasoline, but not more energy.

Love explained that methanol produces less energy per volume than gasoline and that "the contest is not a mile-per-gallon contest, but

an energy-efficiency contest."

Love said that the one advantage of using methanol is that higher compression can be used.

Husbands offer aid in childbirth

Editor's Note: The author of this article coached his wife through the Lamaze method birth of their first child early in this semester. The baby girl weighed seven pounds, seven ounces.

By MIKE CARL

Special to the Battalion

Even though the nursery is crowded and the six labor rooms are occupied, the father's waiting room is as full as it would have been a year ago.

With the rise in popularity of natural childbirth methods, more and more fathers have quit pacing hospital corridors and are now taking an active role in the birth of their children. Lamaze, Bradley and other prepared childbirth methods are now allowing expectant parents to share the birth experience.

The Lamaze method is better known in this area and is gaining in popularity, says Sharon Christopher, who has taught prenatal classes since 1974. "The Bradley method is more popular in Colorado and California," she said.

The big difference between the two methods is that Lamaze emphasizes active participation, Christopher explained, "and the Bradley method is more passive, stressing relaxation and controlled breathing."

She says the goal of Lamaze is to provide a positive birth experience for both parents. This is achieved by teaching couples techniques with which the mother's pain can be significantly reduced during labor and delivery.

The Lamaze method is based on the gate-control theory of pain, Christopher said. This theory states that when a certain level of negative stimuli is reached in the body, pain

will be experienced. By adding positive stimuli to the nervous system to cancel out the negative, a person's threshold of pain can effectively be raised.

A series of six, two-hour lessons prepares couples for using Lamaze. From the first class, which is usually in the couple's seventh month of pregnancy, expectant parents begin to learn how to become a labor and delivery team. Physical exercises and concentration-relaxation techniques are stressed in the first class and throughout the course.

The exercises are designed to stretch, strengthen and tone the muscles which will be heavily used in labor and delivery. If the mother is in good physical condition, the labor will be easier for her.

The father, or "coach," does not sit idly by while his partner does all the work. In order to help his wife practice at home, he also must learn how to do the exercises properly.

Most coaches soon learn that the exercises are not easy and their attitude toward their own role in Lamaze begins to change.

Before labor, the coach guides his mate through a series of exercises every day. He must count the repetitions, offer advice and, probably most important, he must offer the understanding, concern and support his spouse needs to continue them. A coach soon learns the power of a few words of praise and encouragement.

Seven basic exercises are used to get the woman's body conditioned for childbirth. Each exercise begins and ends with a deep breath, almost ritualistically. After weeks of practice and repetition, this "deep cleansing breath" become an automatic signal to the body to begin working. When hard labor begins,

this deep breath precedes and follows each contraction. The following breath serves as a signal to relax after the contraction is over.

Perhaps the hardest exercise to master is called the universal toner. While lying on the back with knees bent, the knees, thighs, perineal and buttocks are tightened and the back is pressed to the floor while the pelvis is rotated up and back. Each muscle group is tightened individually in order and then held while succeeding groups are tightened.

After three breaths, the muscle groups are relaxed one at a time in reverse order. This exercise is an important aid in learning how to control closely related muscle groups individually—a skill which can make delivery much easier.

Concentration is really the key to the Lamaze method. Focal points and breathing techniques require varying degrees of concentration which provide a positive activity to take the mother's mind off the pain of labor and delivery.

A focal point is nothing more than a point of reference upon which the woman fixes her eyes. A picture on the wall or some fixture in the room in easy view is used. No exercise or labor simulation is ever performed without first finding a good focal

point. With repetition, concentrating on a focal point becomes habitual. Concentration can become so intense that outside distractions go unnoticed. In the labor and delivery rooms a mother can concentrate on a focal point to take her mind off the contractions. If she does not dwell on the pain, then the pain will not be as intense.

There are three basic breathing techniques used when labor pains are severe enough to interrupt speech. These techniques are known as Gears I, II and III.

Gear I, or slow chest breathing, is usually the first breathing technique used during labor because the concentration required is the least of the three techniques. This breathing method uses six to nine slow, controlled breaths per minute.

Gear II is a form of shallow chest breathing. The speed of Gear II breathing is based on the intensity of the contraction. As a contraction increases in strength, the rate accelerates to a maximum of one breath per second. As the intensity of the contraction subsides, the breathing returns to a more normal rate.

Gear III is known as the pant-blow technique. It is a combination of four panting breaths and one breath exhaled sharply. It is prac-

ticed frequently during intense labor. There are also various combinations of the three breathing techniques that require a maximum of concentration.

The coach's role during labor and delivery is one of guidance and support. He keeps his spouse posted on her progress and helps her keep control of the situation. Through the classes, both have learned what to expect in the labor and delivery rooms and what they should do.

The coach is mainly concerned with the comfort of his mate. He reminds her to change positions often, helps ease back labor, helps work out cramps and helps her with her breathing techniques.

And most important, the father is there to give his support and concern when his wife needs it most.

Is Lamaze changing young couples' attitudes toward childbirth? Sharon Christopher says, "It used to be that everyone expected the worst." She added, "Now they expect hard work — not pain."

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Colorado to host U.S. sports meet

United Press International

COLORADO SPRINGS, Colo. — The United States Olympic Committee has awarded the 1979 National Sports Festival to the same southern Colorado city which hosted it this year, USOC president Robert Kane said Monday.

"We are extremely pleased to be returning to Colorado Springs. Last year's participants were very enthusiastic about the experience they had here and many expressed the hope the festival would come back to this area," he said.

Colorado Springs hosted the inaugural event last year with 2,100 athletes from 26 sports participating. Kane said seven other cities were interested in hosting the festival, but lacked adequate facilities.

He said the decision to return to Colorado Springs was made by the USOC Executive Board during a weekend meeting which also expanded the competition from four days to six days, July 27-Aug. 1.

"It will permit better use of some of the facilities, reduce the intensity of scheduling in sports such as basketball, hockey and soccer, and give spectators an opportunity to see more of the sports on the program," he said.

He said the Colorado Springs city council has agreed to support the festival to a maximum of 285,000 in food, housing, ground transportation, security and other services.

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