

Rebuilding motors is profitable hobby

Antique engines fascinate A&M student

By BRIAN BONNET
Battalion Reporter

Although there were times of despair, disappointment and bruised knuckles, Don Frei never gave up on his hobby. The junior marketing major from Westphalia is infatuated with restoring old, single cylinder, gasoline powered engines.

"I virtually fell in love," he said, when he first saw a "one lugger design" four years ago. Frei first encountered a "one lugger design" at a neighbor's house.

"Having been raised on a farm and working on engines, naturally I became mechanically inclined," Frei said.

In May of 1977, Frei and his brother found an antique engine at a flea market in Fredericksburg. The name plate showed that the engine was a Johnson and Fuller, patented in 1909.

Frei bought the engine. While inspecting it, he found the engine was complete, but entirely rusted together. The timing gears were chipped and had to be replaced, and a duplicate was made of the rusted gas tank.

Using the rust solvent WD 40 to disassemble the engine, Frei took each piece and sanded it with sand paper and emery cloth. On some of the larger pieces he used an electric sander.

Frei used no guidelines but his mechanical intuition in piecing the engine back together.

"There were grave times," Frei said, in putting the engine back together, "because the engine was so prehistoric in terms of today's motors. It was just like studying the history of mechanics."

Frei said the Fuller and Johnson was an air-cooled, three horsepower

engine which weighed 480 pounds. It was used as a substitute for wind power on wind mills.

Rebuilding the engine took Frei 14 months. He still remembers when the engine first started.

"There were times of despair, lost knuckles and a feeling of if it was worth it, but I'll never forget when the engine began running," Frei said. "I had a baseball cap on, and when that engine first began sputtering and then running, that cap hit the ceiling."

Frei took last year off from school, and had time to work on his engines. His major complaint about going to school now is that he doesn't have time to spend on his hobby, except weekends.

Frei is also working on two more engines in his spare time at home. One is an Ottawa brand engine and the other is a Bull Pup. Frei estimates that both are from the early to mid-1920s, but has been unable to pinpoint their exact dates yet.

Frei found the Ottawa engine about 15 months ago while at a neighbor's house. He spied its fly wheel sticking out of a pile of rubbish.

"This engine is special because it was used as a saw," Frei said. "This was the first attempt by man to saw, other than means of human or steam power. It is the predecessor of the modern chain saw."

The engine has parts missing from it, some of them from the sawing mechanism. He hopes to have the missing parts duplicated from pictures and specifications taken from The Gas Engine Magazine, a publication about early farm machinery equipment.

Frei's most recent acquisition, the Bull Pup, was used as a corn meal grinder. The Bull Pup was a small engine made by the Bull Dog Company.

Frei said this engine will be the hardest to rebuild because the timing device is missing. He said he can't begin work until he can find the part.

"The engine is in limbo right now," Frei said. "Hopefully, an ar-

title will come up or I can write a column to The Gas Engine Magazine explaining my problem and they can publish it."

This past July, Frei went to the Annual Antique Early Farm Machinery Show in Meridian. Frei said out of the 160 early gas engines there, none were like his.

Frei also said that the chairman of the Association of Texas Antique and Early Day Farm Machinery told

him that the Fuller and Johnson is very rare, and that he has only seen one that is in running condition.

Frei estimates that he has spent about \$300 on his engines. They have a net worth of over \$1,500. "I had a guy offer me \$500 for the Fuller and Johnson engine, but I refused," Frei said. He added that he'll probably never give his engines up because of their sentimental value.

"It is a feeling of pride and accomplishment to come home and start the Fuller and Johnson," Frei said. "Working on the other ones gives me a great feeling, too."

Frei said his father told him when he began working on his first engine that he would never get it to run.

"Now he is just as proud of it as I am," Frei said. "Whenever a friend comes over, he always asks if they have seen my engine run."

U.S., Yugoslavia seek improvements in trade

United Press International
BELGRADE — The United States and Communist Yugoslavia are pushing to improve trade levels and economic cooperation.

In a way it's an investment in the future on both sides. It could even be called insurance.

Yugoslavia, whose number one individual trading partner is the Soviet Union, is looking for new markets so as not to become overly reliant on the East bloc for its economic needs in case economic dependence could be used as a pressure point in the future, diplomats say.

The United States, always ready for new markets, also is interested in joint ventures with the Yugoslavs.

Trade between the two countries has shown a nearly threefold increase since 1970 to a two-way total around \$700 million last year, with \$1 billion in trade expected this year.

Moreover, the trade is more or less balanced, in sharp contrast with Yugoslavia's massive \$2.4 billion deficit with the Common Market countries in 1977.

The United States ranks number four — behind the Soviet Union, West Germany and Italy, among Belgrade's individual trading partners. But, as one U.S. source said, "It's a long way from one to four."

At last year's meeting between President Carter and Yugoslav President Josip Broz Tito in Washington it was agreed to set up economic working groups on both sides to focus on specific trade problems.

Heading the U.S. side is Undersecretary for Commerce Frank Weil who journeyed to Yugoslavia in September to open a modern new American business center in the heart of downtown Belgrade and to underscore the importance placed on U.S. participation in this year's annual Zagreb trade fair.

For their part the Yugoslavs sent a high-ranking trade delegation to the United States the last week of September, led by Ilij Vukic, president of the Yugoslav Chamber of Commerce, and including business leaders and company directors from about 40 of Yugoslavia's top firms and banks.

The group was meeting with representatives of top U.S. firms in areas including agriculture, chemistry, metals and metal products and retail trade. Vukic said they would "offer goods to their American

partners, together with them examine new projects for industrial cooperation and joint ventures and discuss new undertakings in third markets."

An extensive Yugoslav traveling exhibition will tour the eastern United States in October and November to try to drum up business for their export goods, including canned food, wines, textiles, clothes, leather and shoes and mechanical tools and parts.

American sources say there is a psychological block to be overcome on both sides.

In the U.S. there is a lot of ignorance about Yugoslavia, with its decentralized Communist rule and system of "self management," although the country does not fall within the Department of Commerce's Bureau of East-West Trade but is treated as a Western European country.

On the Yugoslav side, American sources said, there is almost a fear of getting too deeply involved in the huge and extremely competitive American market. They are concerned, for example, whether Yugoslav companies could compete in quantity and price as well as quality.

U.S. Ambassador Lawrence Eagleburger sees the key to expanding American business in Yugoslavia as increased Yugoslav exports to the

MINORITY OPPORTUNITIES COMMITTEE

University Texas School of Law

University Texas School of Law will be recruiting on Campus on November 9, 9 a.m. - 12:30 p.m.
In front of the TAMU Bookstore in the MSC.



Day students get their news from the Batt.

\$15 off **STUDENT DISCOUNT COUPON** **\$15 off**

THIS COUPON WORTH \$15. Off The

NOV. 12
Foyt Vs. Allison
in the showdown

TEXAN 250
and two races of the

TEXAS RACE OF CHAMPIONS



Regular price of a \$20 reserved seat ticket when presented at either the Speedway ticket office or the main ticket gate. When redeemed the \$20 reserved seat ticket is good for all events the entire Nov. 11 and 12 weekend.

Student I.D. must be shown.

Saturday, November 11
Practice and Time Trials
and the
Interplanetary Chili
Championship. BAT

TEXAS WORLD SPEEDWAY College Station, Texas

Sports Club

COMING

Vince, Vance, & The Valiants

NOVEMBER 14

ADVANCE TICKETS AVAILABLE \$3.00

"It's A 50's Rock 'n Roll Revival"

IN UNIVERSITY SQUARE 846-2415

TECHNOLOGY AND POLICY AT MIT

A MASTER OF SCIENCE PROGRAM designed for persons wanting to participate in formulating policies for the development, use and control of technology and its consequences. Students form individual curricula to work on issues such as solar energy, the economics and legal aspects of materials recycling and the use of automation in manufacturing.

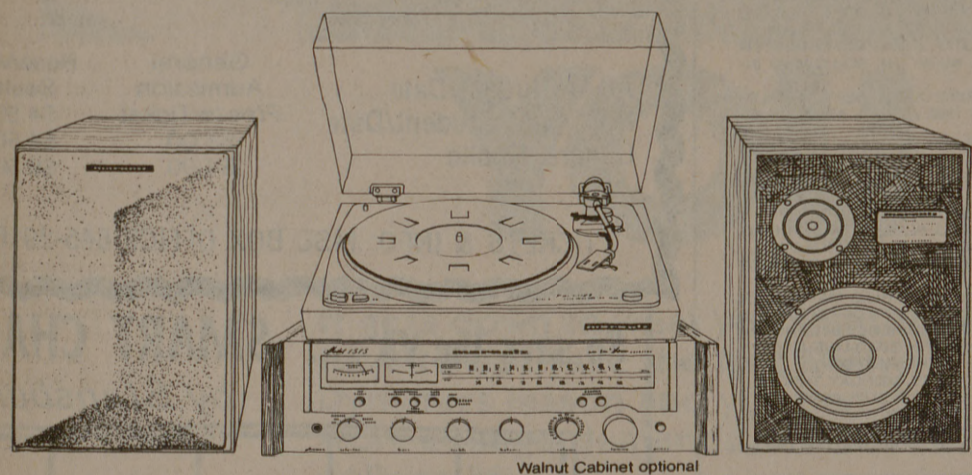
For information write:
Prof. Richard de Neufville
Rm 1-138, Massachusetts
Institute of Technology
Cambridge, Massachusetts
02139

Battalion Classified
Call 845-2611



This is how we spell "relief":
VISTA

LAST DAY ON CAMPUS!
PEACE CORPS/VISTA INFORMATION BOOTH:
MEMORIAL STUDENT CENTER
Interviewing Seniors/Grads at
Placement Office, Rudder Tower



Walnut Cabinet optional

AN ALL-MARANTZ SYSTEM FOR \$519.80 IS A BARGAIN THAT GETS BETTER EVERY TIME YOU HEAR IT.

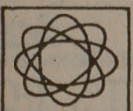
Start with the exquisite design of the Marantz Model 1515 AM/FM Stereo Receiver. 17 Watts per channel into 4 ohms from 20-20,000 Hz with no more than 0.15% Total Harmonic Distortion, or 15 Watts per channel into 8 ohms from 20-20,000 Hz with no more than 0.08% THD.

Maintain that incredibly clean, pure sound with the Marantz Model 6025 Belt-Driven Semi-Automatic Turntable, equipped with a specially designed new Marantz tone-arm that exhibits 30% less distortion than competitive turntables.

Finally, a pair of solid-sounding Marantz 4 MK II Bookshelf Speakers complete the system in compact, great-sounding style. That's a complete Marantz system. Power when you need it most, less distortion, and great value. When you see values like this, you know quality isn't the only Marantz advantage.

Complete system, only
\$398
There's never been a better time to buy Marantz.

marantz.
We sound better.



Homecraft Electronics

693-8097 1921 S. TEXAS-C.S. (ACROSS FROM BUD WARD VOLKSWAGEN)
"ONE STOP SHOPPING FOR ALL YOUR AUDIO & VIDEO NEEDS"

ASTRALES

GARDEN DISCO

"Where Everybody Meets"

Bryan-College Station's Big City Disco

813 Wellborn Rd. 846-1100

WEDNESDAY NIGHT

IS

HAPPIEST HAPPY HOUR!

FEATURING

GREEK NIGHT

5¢ BEER **1/2 PRICE DRINKS**

TONIGHT!