



Photo courtesy ATL Magazi

Photo shows prototype of all-aluminum tractor before cab was installed.

## **Norwegians Introduce All-Aluminum Tractor**

A new all-aluminum tractor being built in Norway made its first public showing at the recent Laandbruk 95 farm equipment show near Oslo.

Called the Envirotrac 2000, the lightweight "less compacting" machine - at just over 4,000 lbs. - weighs 40% less than a comparable size 89 hp conventional farm tractor. Instead of using drawbar pull, it transfers engine power for operating equipment to front (hydraulically-driven) and rear (mechanically-driven) pto's.

Virtually everything except the engine and wheel rims is made of extruded aluminum.

The Envirotrac features identical front and rear axles, same-size wheels all around, 3-pt. hitch front and rear, and hydrostatic transmission with a hydraulic motor at each wheel. Transmission oil circulates inside the tractor's aluminum main frame for cooling.

The engine is a 4-cyl., water-cooled Deutz turbo rated at 89 hp. The cab, mounted on a turning plate, swings 180 degrees. Weight distribution is 60/40 front/rear.

Researchers at the Envirotrac's birthplace - the Norwegian Lundbrukshogshule in As, Norway - are hopeful that 25 production models of the new tractor will be built next year. Project leader Jon Kare Boe estimates that retail cost will be about \$44,000.

# "Safety Sensors" For Farm Equipment

It won't be long before most farm equipment comes factory-equipped with safety sensors that automatically shut down machinery if anyone gets too close to ptos, sprockets, or other potentially dangerous components while they're running. That's according to researchers at the University of Minnesota working on the idea.

Depending on the machine, the sensor will automatically shut down or send out a warning," says safety engineer John Shutske who heads a project working on "smart" farm equipment.

One such sensor uses ultra-sonic range-finding sensors to detect anyone or anything by measuring distances down to a fraction of an inch. It can be mounted by a pto shaft, for instance. If anyone or any part of clothing gets within a preset distance, an alarm will sound or the machine will

'As more computing power can be packed into computer chips, these devices will become increasingly affordable, perhaps selling for less than \$100 per unit," Shutske

## He's Turning Spider Webs Into Rope

Tow ropes may one day be made out of spider silk, according to a University of Wyoming scientist who's made discoveries that could lead to mass production of super strong but elastic spider webs.

Molecular biologist Randolph Lewis announced recently he'd found a way to synthesize one of two spider silk proteins through genetic engineering. Tests on small quantities produced so far indicate it may be stronger than any other "natural" fiber known to man.

#### Did You Know . . . ?

- That the pig is one of the oldest mammals? Fossil remains date back 36 million years. Some experts believe it was the pig - not the dog or cat - that was first domesticated
- . That years ago when turkey operations were much smaller than they are today, farmers sometimes put sows and their litters in the same fields with turkeys. If coyotes approached, the sows would form a protective ring around both their pigs and the poultry to fight off the predators.

## Great Gift Idea For Christmas!

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#### A Lesson In Real Life

"When she got back to her rural home after participating in an animal rights march in Washington, D.C., my friend Joan let her cat out into the yard. Twenty minutes later she was shocked to find the cat returning with a rabbit in its mouth. Removing the rabbit, Joan placed it in a box, grabbed her car keys and headed for the animal shelter.

"On the way she accidentally hit a squirrel. She stopped the car, put the squirrel in the box and went on to the shel-

"There a wildlife worker told Joan he could do nothing for the animals. 'But I'm glad you brought them in,' he said. 'Now we can feed the owl."" (Frank Malandra in Reader's Digest)

# **Handy Safety Tips**

Don't ride in autombiles - they cause 20 percent of all fatal accidents. Don't stay at home - 17 percent of all accidents occur in the home. Don't walk on the street or sidewalk -14 percent of all accidents occur to pedestrians. Don't travel by air, rail or water - 16 percent of all accidents happen on these. However, only .001 percent of all deaths occur in worship services. Thus the safest place for you to be is in church. (Vicki Eilts)



## "World's Biggest Tractor"

Biggest attention getter at farm shows this fall was "The World's Biggest Tractor," a giant-sized cold air balloon replica of a Case/IH 7250. Fully inflated, it stands 30 ft. tall, 45 ft. long and 24 ft. wide. It weighs 415 lbs. and is held up by two 1/3 hp fans. When deflated, it folds into a compact, refrigerator-size package.

A dozen tie-down straps keep it from drifting off into space. For safety's sake around crowds, it's taken down in winds exceeding 25 mph. It's made of 3-layer vinyl-coated nylon material.

What did it cost? About 1/5th the retail cost of a \$120,000 real-life, fully equipped 7250.



#### Another Classic "Product"

John Harvey has been a good friend to FARM SHOW for many years. He's the man who "invented" Dupont's Classic Farm Tractor Calendar, which has been the country's most popular farm calendar since the early 1980's. Two years ago, when John left Dupont to start his own company, he took the Classic Tractor Calendar with him. Along with the calendar, he also produces videos featuring all the tractors appearing on each year's calendar as well as an antique tractor book (write John for details, pricing, etc.).

Last year, John came out with another "first" - Classic Tractor Playing Cards. Each card features a different vintage tractor with the name of the owner and an interesting fact about the particular make and model featured. After selling thousands of sets of the first edition of cards, John recently introduced a second edition featuring all new tractors. There are 52 different tractors from 22 different manufacturers. All tractors have been beautifully restored by their owners who live in 20 different states and Canada. Comes with two decks in a custom-designed box for \$15 post-paid (\$20 in Canada - U.S. funds only). First edition decks still available, also for \$15 a set. Contact: FARM SHOW Followup, John Harvey, Classic Cards, Box 437, Rockland, Dele. 19732.

The shy country boy had been courting a girl for years. He had been unable to find the right words to ask her to marry him.

One afternoon as they strolled by the village cemetery, the right words came

"How would you like to be buried over there with my people?" he asked.