BUSINESS in New York State





VERSIFIED WESTCHESTER INDUSTRY, p. 3

December 1972

GE'S ELECTRIC TRACTORS A Boon For Environment

A VERSATILE, NEW LINE of electric tractors called Elec-Trak is being produced by the General Electric Company in facilities at Corporations Park, Scotia, and marketed throughout the United

States and Europe.

The compact tractor, called the Elec-Trak, is a lineal offspring of GE's Delta electric car project undertaken in the mid-60's. Several problems are inherent in electric automobile design: the considerable weight of the batteries, poor power characteristics at high speed, and lack of long range, among others. However, engineers discovered that these problems are either negligible in a compact tractor or that they can be turned to advantages. Batteries can be placed over drive wheels using their weight for maximum traction, important to a tractor. High rolling resistance and poor power at speed aren't important in tractors, when top speeds are just under 10 mph. And distance range is not a factor since it never strays far from its refueling station—the electric outlet.

Several years of development preceded the Elec-Trak tractor's formal introduction in February 1970. Three models in the twelve to sixteen horsepower class debuted, with marketing through 200 independent franchised dealers in the eastern

half of the United States.

MODELS AND MARKETS PROLIFERATE

From these beginnings, there are now eight models, including one industrial, marketed throughout the United States, suburban Canada, the British Isles and Europe. From the original 200 dealers, the number has increased to approximately 1,500 today which carry this spunky little vehicle.

All the Elec-Trak tractors receive their power from special long life batteries rechargeable on normal 110-volt house current, making the tractors quiet, pollution-free, easy to start and economical, not always true of the traditional gasoline models. Weight distribution leans toward the drive wheels, and the DC drive motor generates more than enough torque.

Range on a single charge depends on the job being performed and the model of tractor doing

BACK COVER: From nuts and bolts to finished product. It all happens on GE Elec-Trak assembly lines. They are geared for quality, with 100 percent run-in checks and a written record of every test.

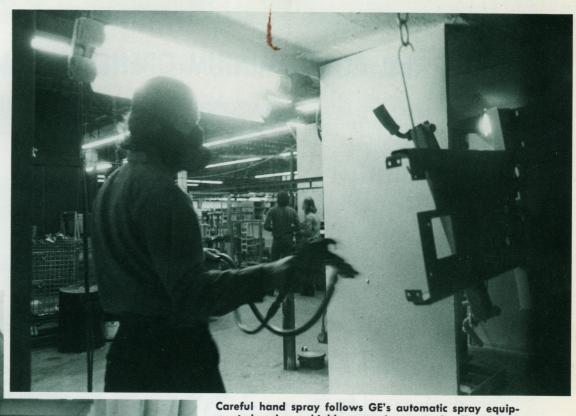
it. Mowing is the most common usage and one acre with the smallest tractor to three acres for the three largest models is average. (An auxiliary battery pack can raise this by 50 percent more.) Other uses include snow removal (blade or thrower), tilling, sweeping, vacuuming, chain sawing wood, even welding with a plug-in arc welder. All in all, there are over 50 attachments, all electric and all plugging into the Elec-Trak power pack. There are even attachments to convert the tractor to a golf cart for two.

GE technology and long experience in electrical products have produced tractors at prices competitive with similarly powered and equipped gasoline tractors, with attachments and accessories extra. Even more dramatic savings result from lowered operating expenses, since electric operation can be as little as one-eighth the cost of gasoline operation. Recharging is in the neighborhood of 10¢ depending on power rates and maintenance is almost nil. This cost ratio, electricity to gasoline, is even more significant in Europe, where gasoline prices may be twenty times higher than electricity. Such savings have created a burgeoning European market. Like shipping to its domestic dealers, distribution overseas is accomplished rapidly and conveniently from Corporations Park. Cargo containers are loaded and sped on their way to the Port of New York via the New York State Thruway.

NEW MODEL CONFORMS TO OSHA

GE has just opened a brand new market for these versatile tractors—the small to mediumsized industrial/commercial firms. A new model, designated the I-5, has been approved for the Class E label by Factory Mutual Engineering Corporation and meets ANSI B56.1-1969 specifications, both requirements of the Occupational Safety and Health Act. The I-5 has capabilities in material handling, plant maintenance and grounds care. Three forklifts receive motive and electric power from the I-5 and mount either front or rear at the user's option. A maintenance cart, front end loader, rotary broom, vacuum, welder, and ability to attach all lawn and garden attachments give the industrial tractor wide appeal.

The I-5 Elec-Trak tractor's marketing effort is aimed at those 300,000 firms with 250 employees



Careful hand spray follows GE's automatic spray equipment, insuring a highly protective coat of yellow paint. Special lighting assists the painter in achieving a high-quality finish.

or less and is the only tractor of its type today. Elec-Trak tractors are now being used at airports, hospitals and retail stores. Key to their success is their lack of pollutants—there are no hydrocarbon emissions that require extensive ventilation systems. Nor does volatile fuel have to be stored. While the all-electric tractor is an inherently more reliable motive system than fuel-powered drives, General Electric is taking no chances. A fully trained service organization backs up sales. Intensive two-day service training programs are being held over a six-month period each year in 50 cities across the country to assure user satisfaction. A measure of the acceptance of the Elec-Trak tractor may be seen in the expansion the operation has undergone since 1969. At that time it occupied 40,000 square feet in Corporations Park.

A critical area is the control center of the tractor. Every control system is built and 100 percent checked at GE's facilities before it goes in the tractor.

to need more soon.

"With the current market for outdoor tractors at \$250 million per year," Bruce R. Laumeister, manager of GE's Outdoor Power Equipment Operation, forecasts, "and with the expectation that by 1980, half of the market for all small tractors will be electric, you can see that we will be a major growth area in the company."

Today it occupies 250,000 square feet and expects



The GE Elec-Trak . . . see p. 16

STATE OF NEW YORK NELSON A. ROCKEFELLER, Governor Published by



DEPARTMENT OF COMMERCE NEAL L. MOYLAN, Commissioner

BUSINESS IN NEW YORK STATE
N. Y. S. DEPARTMENT OF COMMERCE
99 WASHINGTON AVE., ALBANY, N. Y. 12210