

on the guideway and locations of switches, crossings, and load/unload stations. Once started in automatic operation, the Pathmaster accelerates to speed, finds its own way to programmed destinations, decelerates and stops, positions itself at load/unload stations, and executes other programmed functions.

The Otis guidance and control system gives the Pathmaster unique advantages over other concepts. More than one unit can operate, in the same direction or in opposite directions, on the same guideway. Multi-unit systems have fully automatic two-way blocking, with provision for converging or diverging paths, crossings, switching, and multiple station functions. The system can also be upgraded for full on-line computer operation.

A three-wheeled battery powered vehicle, the Pathmaster demonstrated by Otis at TRANSPO exerts a drawbar pull of 400 lbs. and is capable of pulling as many as five trailers loaded with luggage or other goods, with a total payload up to 15,000 lbs., at 5 m.p.h. maximum speed. The unit can operate up to 16 hours on one battery charge under typical duty cycle conditions. Drawbar pulls up to 2,000 lbs. are also available.

The compact, fully integrated tractor unit is designed for easy access to all controls and drive components. Drive unit power is supplied by a heavy duty d.c. motor which provides high starting torque and maximum overload capability. A standard SCR motor control system gives infinitely variable speeds in either direction. A flexible power transmission link and gear reduction unit, with a choice of ratios to suit various speed and power requirements, complete the drive train. An electric disc brake on the input shaft of the gear box multiplies braking effort at the drive wheel.

The Pathmaster can be operated manually off the guideway as a conventional tow tractor, by means of a single control handle, which controls travel direction, speed, power steering, and horn. A deadman switch disconnects the power circuit and sets the brake, if released when the unit is operating in manual mode. When the unit is

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