

M40K-T Tugger

40,000 lbs Towing Capacity

The Model M40K-T is a tugger vehicle capable of automatic or manual driving mode, when the need for human interaction is required. With a capacity of 40,000 lbs (18,200 kg) the M40K-T makes it one of the most powerful AGV towing options available.

Easily switch between manual and automatic modes of operation.

FEATURES

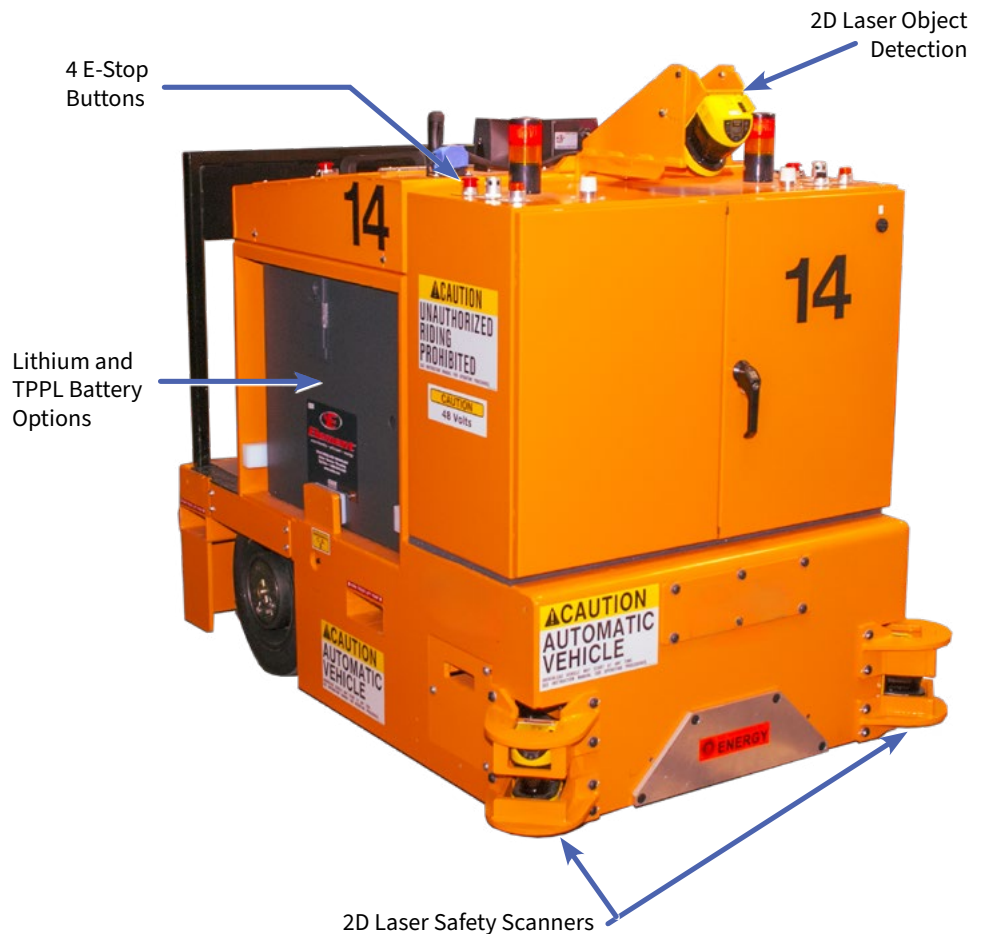
Safe: The M40K-T includes 3 laser scanners to detect obstructions and personnel. Optional vertical side plane scanners. Red or blue floor lights front and sides.

Efficient: The M40K-T is battery powered and charges automatically, providing 24/7 fully automatic operation.

Connected: Integrates with Plant Control Systems via Wi-Fi communications and System Automation Manager™ (SAM) software providing traffic control.

Affordable: Many applications can demonstrate Return On Investment in as few as six months.

Simple: CartTools™ and AGV Tools software provide a user-friendly interface, allowing the customer to modify and expand their systems.



NAVIGATION OPTIONS

Natural Feature Navigation (NFN): The AGV determines its location using LIDAR to identify structures in the environment and match their locations to a virtual map of the facility.

Laser Navigation: Field of reflective targets seen by on-vehicle sensors and used by vehicle computer to determine location.

Inertial Navigation: Odometry data and in-floor waypoints are used by the vehicle computer to determine location.

NAVIGATION ENHANCEMENTS

Enhanced Navigation: Additional sensors can be added to augment the vehicle's navigation technology.

Co-Navigation Technology: Multiple navigation packages may be used on a vehicle in challenging environments.

FEATURES

- Automatic Charging
- Warning Light/Horn
- Automatic Shut off

OPTIONS

- Sleep/Auto-wake
- Front & Rear Event Camera
- Automatic Couple/Uncouple
- Music Generator

Smart Handling AGV Solutions

General Specifications

Weight without batteries	3,150 lbs (1430 kg)
Dimensions	L: 79" (2000 mm) W: 50.3" (1280 mm) H: 98" (2500 mm)
Towing Capacity	40,000 lbs (18,200 kg)
Safety	3 laser scanners, optional (2) vertical plane scanners on sides
Speed	394 FPM (2 m/s) loaded, 492 FPM (2.5 m/s) empty
Battery Options	48V LiFePO ₄ 420Ah or 6830Ah, TPPL options available
Battery weight min/max	2,600 lbs (1180 kg) / 2,700 lbs (1225 kg)
Automatic Charge Rate	200 amp standard, 300 amp optional

Environment

Atmosphere	0 to 40° C, 25% to 95% non-condensing humidity
Dust/Water-proof	No
Floor Specs – Edges/Debris	.25" (6.4 mm) abrupt elevation change maximum, smoothed
Expansion Joints	.25" (6.4 mm) minimum
Friction	0.6 coefficient of friction between wheels and floor, minimum
Floor Conductivity	Static dissipative, less than 3.5 x 10 ⁷ Ω
Radio Communication	Wi-Fi 5

Detailed Specifications

Drive Direction – Automatic	Forward and Reverse (if equipped)
Drive Unit – Wheels	15.8" X 6" (400 mm X 150 mm) Poly
Drive Type	Dual drives
Motor	Two AC 4.8 kW each
Brake	Spring actuated (fail-safe)
Steer Wheel	Single steer with two tires, 16" (406mm) X 4" (102mm) poly
Navigation	Natural Feature Navigation with inertial, optional laser guidance
Positioning Accuracy	+/- .5" (13 mm)
HMI Display	7" (175 mm) color touch screen – errors & destinations
Marquee Display	Destination information – 10 characters 2" (51 mm) high
Video Camera - optional	Event recording - Front/rear, 1080P
Manual Movement	Operator aboard joystick control
Drive Stalled Detection	Yes
Program Method	Easy to use CartTools® and AGVTools™ software
Obstacle Detection	Up to 26' (8 m), speed and location adaptive
Emergency Stop	4 – E-stop buttons
VDA 5050	Optional

CARTTOOLS SOFTWARE

Simple, standardized toolbox of commands that make configuration a snap.

