

MasterMover®

Worldwide Electric Tug Solutions

TOW2000 ES

Battery Powered Electric Tow Tugger



TOW2000 ES

The MasterTow TOW2000 ES electric tow tugger offers outstanding performance when towing loads of up to 44,092lbs on castors. With a compact design and simply controls, these self-weighted tow tuggers can be used inside and outside, as well as on slopes.

The TOW2000 ES electric tow tugger features simple and effective coupling solutions for load security and can move individual loads or trains of items such as carts or cages.

Take advantage of technology by utilizing a range of Remote Control, Line Follow and AGV (autonomous) options, making the MasterTow TOW2000 ES ideal for a variety of applications.



Side view



Front view



Rear view

KEY FEATURES



Safety

- Warning horn, flashing beacon, performance monitoring and emergency safety shut-off
- Machine crawl coupling assist for ease of connection
- Multiple speed settings for control during complex maneuvers

Performance

- Twin motors with independent traction
- Custom drive code enhance performance
- Automatic brakes capable of stopping and holding loads, even on sloped surfaces
- Direct steer double castor allows operation in tight spaces

Quality

- FEA certified steel box section chassis and IP44 protection as standard
- Puncture-proof drive wheels
- Lockdown of key safety parameters

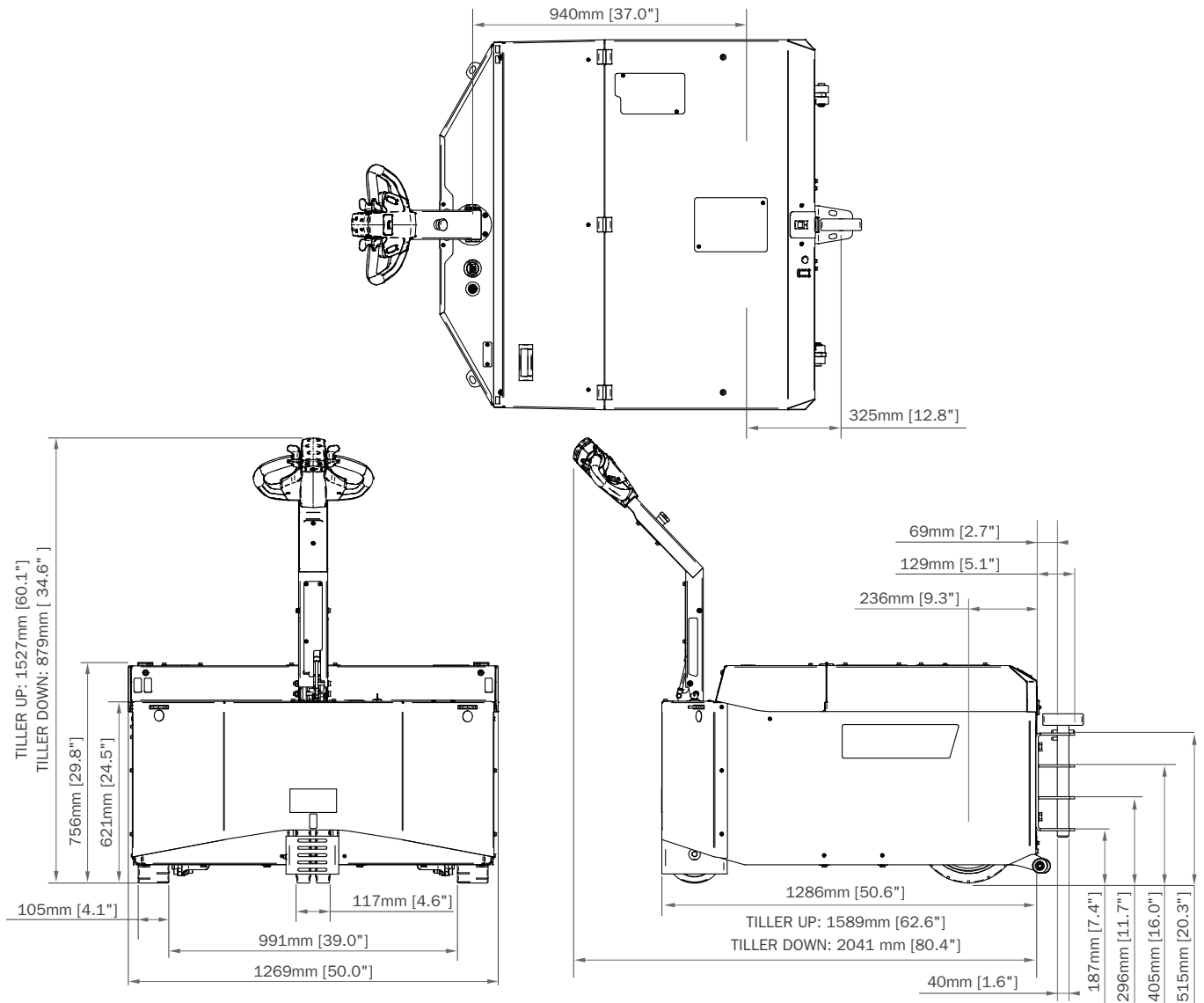
Power

- Interlocked cast weight packs ensure optimum traction and power output
- Interchangeable maintenance-free AGM batteries allows for 24/7 usage (lithium option available)
- Battery Protection System slows machine and forces charge to prevent battery damage

Connection

- Removeable and lockable pin coupling for standard draw bar applications
- Ability to work with a wide variety of draw bar heights
- Variety of coupling options available

DIMENSIONS

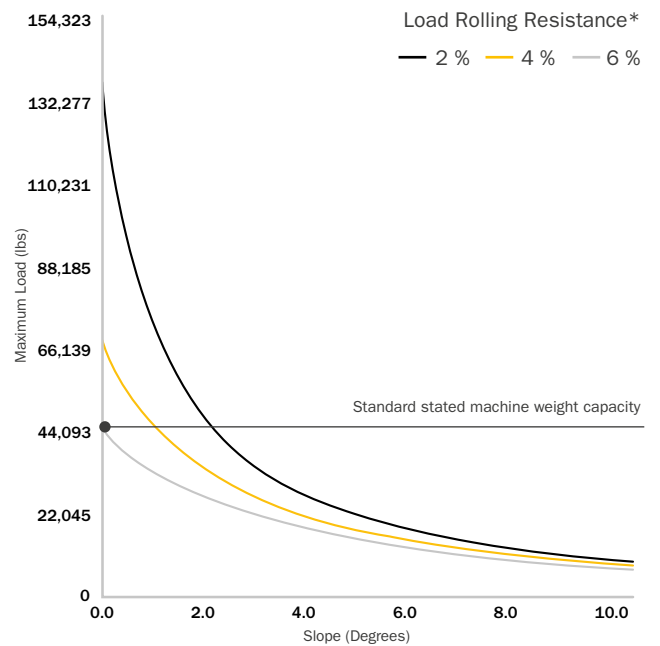


WIRELESS HANDSET

The ergonomic design of the remote control gives the operator access to the complete range of movement and safety options.



PERFORMANCE ON SLOPES



* Other variables that affect load moving capability could include quality of floor/terrain and the type/condition/quality of load wheels.

COUPLINGS

Pin Coupling
Z89-00600 male



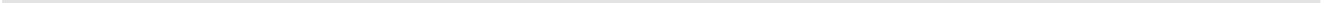
Tow Ball Coupling
Z89-00601 male



Tow Arm Coupling
Z89-00602 male



No Coupling Z89-00604



CUSTOM COUPLINGS

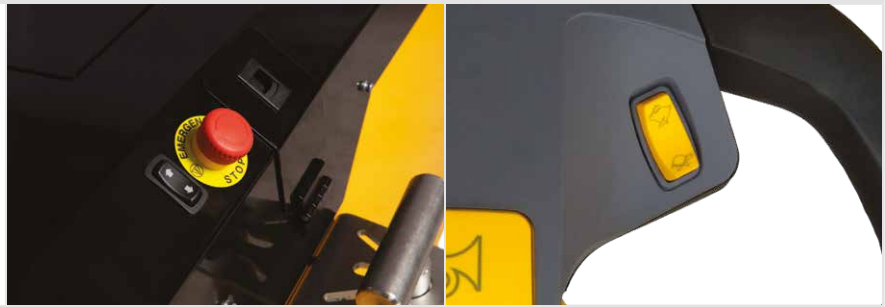
Where required, custom coupling solutions can be designed by our in-house Design and Engineering team.

MACHINE OPTIONS

Flashing Light & Motion Beeper
Z89-00500



Machine Crawl Coupling Assist
Z89-00501



Two Speed Selector Switch
Z89-00505

Battery Protection System
Z89-00506



Remote Control

Z89-00504



Allow your operator to take up the ideal vantage point and step away from the load itself, with remote control operation.

Offering precise and controlled movement, the handset also features a warning horn and emergency stop functions for added safety.

Wireless Autosteer

Z89-00507



Combining the power of remote control operation and line follow navigation, Wireless AutoSteer follows a predefined route marked out by a line on the floor, with the operator controlling the speed with a remote.

A great option for tight spaces and when movement should follow the same route, every time. The machine can still be used through standard manual operation when required.

AGV Line Follow

Z89-00508



Benefit from autonomous operation, and remove the need for operators to move loads. Your electric tugger will autonomously travel between locations, using a line on the floor for navigation.

Barcodes can also be used to change machine behaviors, such as to speed up, slow down or stop the machine. Scanners and safety systems identify risks and take appropriate action, restarting movement when a hazard is removed. The machine can still be used through standard manual operation when required.

SAFETY FEATURES

Key Switch



Emergency Stop Button



Battery Discharge Indicator



Anti-Crush Button



Automatic Parking Brake



Warning Horn



Automatic Cut Off



Lifting Points



Tie-Down Points



TOW2000 ES TECHNICAL SPECIFICATION

Machine	Z Code	Z89-00100
	Maximum load (on castors)	44,092 lbs
	Maximum push force	7,845 N
	Maximum pull force	11,768 N
	Combined machine & battery weight	4,246 lbs
	Drive type	Electric
	Braking	Regenerative
	Parking brake	Electromagnetic
	Drive wheel type	Solid Rubber
	Castor wheel type	Non Marking vulcanized elastic
	Drive motor power	2 x 2 kW
	Controller type	AC
	Standard machine speed	1.2 mph
	Hare mode speed (With two speed selector switch)	1.9 mph
	Tortoise mode speed (With two speed selector switch)	0.7 mph
	Maximum possible machine speed	3.7 mph
	Maximum slope	8°
	Voltage	24 v
	Noise level	Motor ≤80 dBA Flashing light ≤85 dBA Horn ≤112 dBA
	Metal work finish	Powder coat paint & zinc plate
IP rating	IP44	
Wheel	Wheel diameter	350 mm
	Point loading	Drive Wheel 0.047 (kg/mm ²) 0.46 [N/mm ²] Castor 0.061 (kg/mm ²) 0.59 [N/mm ²]
AGM Battery	Z codes	Z89-00300
	Battery pack capacity	234 Ah
	Maximum distance per charge*	3.7 miles
	Charge time (External charger)	8 hrs 30 mins
	Charge time (Internal charger)	8 hrs 30 mins
External Charging	Input voltage	85 - 265 v
	Hertz	50 - 60 Hz
	Amps	30 A
	Phase (single, three)	Single
	IP Rating	IP30
Internal Charging	Input voltage	85 - 265 v
	Hertz	50 - 60 Hz
	Amps	30 A
	Phase (single, three)	Single
	IP rating	IP30

TOW2000 ES TECHNICAL SPECIFICATION

Lithium Battery	Z code	Z89-00302
	Battery pack capacity	180 Ah
	Maximum distance per charge*	2.8 miles
	Charge time (External charger)	4 hrs 30 mins
External Charging	Input voltage	85 - 265 v
	Hertz	50 - 60 Hz
	Amps	40 A
	Phase (single, three)	Single
	IP rating	IP30
Coupling	Pin Coupling (male)	Optional
	Tow Ball Coupling (male)	Optional
	Tow Arm Coupling (male)	Optional
	No Coupling	Optional
Safety	Key Switch	Standard
	Emergency Stop	Standard
	Battery Discharge Indicator	Standard
	Anti-Crush button	Standard
	Automatic Parking Brake	Standard
	Warning Horn	Standard
	Automatic Cut Off (as tiller arm returns to vertical)	Standard
	Integrated Lift Points	Standard
Options	Integrated Tie-Down Points	Standard
	Flashing Safety Light and Motion Bleeper	Optional
	Two Speed Selector Switch	Optional
	Machine Crawl Coupling Assist	Optional
	Battery Protection System	Optional
	Remote Control	Optional
	Wireless Autosteer	Optional
AGV Line Follow	Optional	

* Based on 75% of maximum machine load weight on a flat floor on castors.