

Yale[®]
People. Products. Productivity.[™]

Tow Tractor



MO50-70T

10,000 - 15,000 lbs.

A highly competitive solution for manufacturing

The MO50-70T tow tractor is designed for use in a wide range of manufacturing applications, with superior operator comfort and increased productivity and efficiency. It is an efficient and cost effective solution for line feed operations in manufacturing, ideal for use in intensive manufacturing processes and horizontal transport over short and long distances.

○ Ergonomics

- Power steering reduces the arm movement required to change direction. This allows the operator to remain within the truck footprint at all times for protection as well as help in reducing operator fatigue and increasing productivity.
- A personnel sensor, which covers the entire platform floor area detects when the operator is on board. This, together with the high, soft touch, back rest, allows the operator to locate the most comfortable operating position.
- The large platform area increases operator comfort and allows easier pass through.
- Slow-speed forward and reverse direction buttons (coasting function) are located on the backrest.

○ Productivity

- The powerful high thermal capacity 3.5hp AC drive motor delivers high performance acceleration, braking and travel speed, making these models ideal for stop and go operations.
- Acceleration, travel and braking speeds can be adjusted by a service engineer to the particular needs of the application through the operator console.
- Effortless electrical steering and automatic speed reduction on cornering ensure excellent control and high productivity.
- The anti-roll back on ramps device ensures efficient operation.
- A maximum travel speed up to 5.6mph reduces travel time on long runs between docking and picking areas.
- Vertical or lateral battery extraction is available.

○ Cost of Ownership

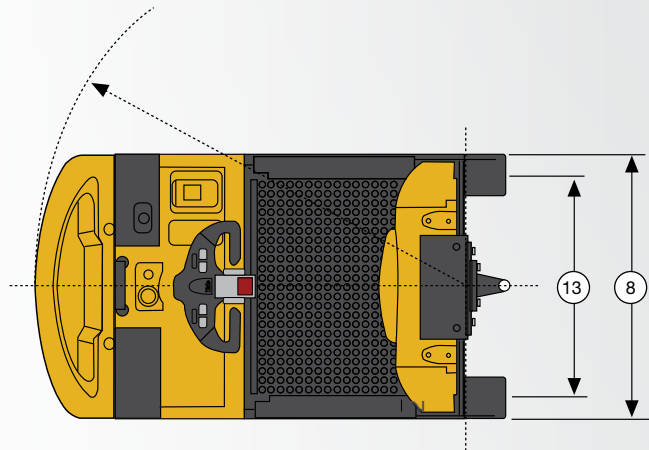
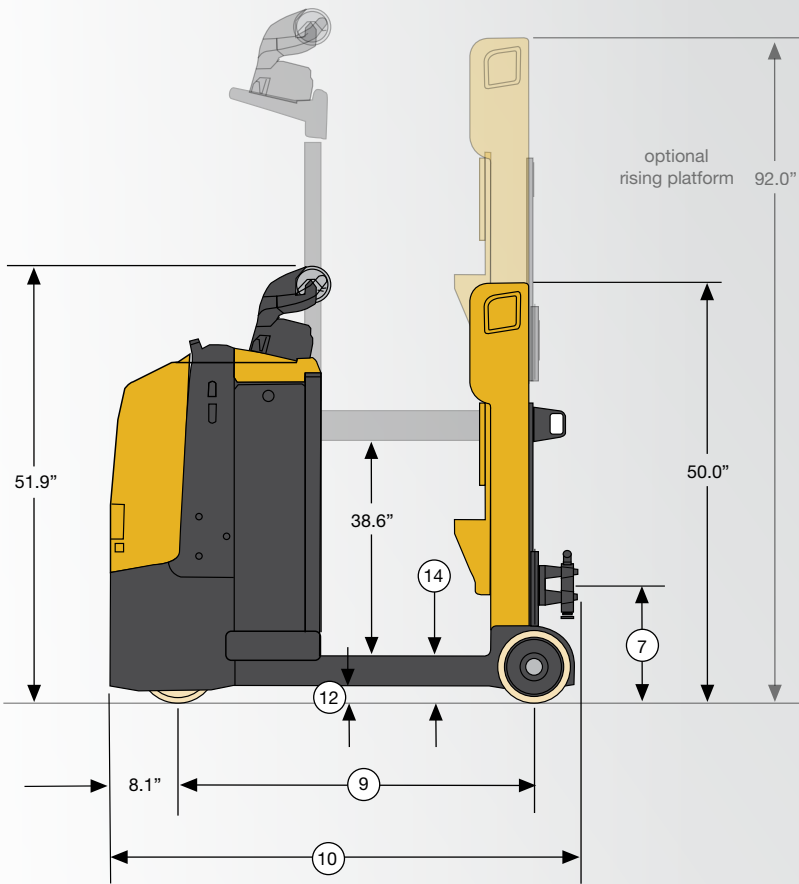
- Adjustable performance settings allow the truck to be tailored to the needs of the application, helping to reduce energy consumption.
- Regenerative braking reduces the use of the service brake and dissipates heat from the traction motor increasing the life of key components.
- Motors and controllers are protected against damage and debris, reducing servicing and repair costs.

○ Dependability

- The solid frame construction and industrial grade components ensure long-term reliability and durability.
- A sturdy wrap around bumper plate protects the truck against impacts and damage and minimizes repair costs.
- The truck's electronics - including the enclosed AC traction motor, sealed combi-controller (with IP65 rating), sealed electrical connectors and hall effect sensors and switches - are all protected from damage to ensure excellent reliability, maximum productivity and reduced servicing costs.
- Reduced wiring complexity is a result of the CANbus communication system, which also provides easy access to components and delivers world-class reliability.

○ Serviceability

- The CANbus system and diagnostics can be controlled and monitored via the console or through the single plug-point. Fault codes can be displayed on the console for easy service identification.
- A one-piece hood provides easy access to key components.
- Full access to all the trucks main components, including the motor is, by the removal of the motor cover, which is retained by two easily removed screws.
- The low maintenance AC traction motor with built in thermal protection is fully enclosed for protection against damage and debris, minimizing service downtime.



Fly-by-wire power steering reduces steer effort by up to 90% helping to reduce operator fatigue. The wrap around design keeps the operator's hands within the interior perimeter of the handle for increased protection, enhanced ergonomics and productivity.

Available options include:

- Side battery extraction
- Floor-level bumper (rubber bumper)
- Mid mounted bumper (bull bar)
- Universal support bar on motor compartment
- Several hook types
- Various drive wheel compounds, platform lift heights and storage compartments
- Rising platform



Optional rising platform is available.

GENERAL	1	Manufacturer			Yale		
	2	Model Designation			M050	M070	
	3	Power			Battery		
	4	Voltage			24		
	5	Operation			Stand		
	6	Rated Capacity		lb (kg)	10000	15000	
DIMENSIONS	7	Tow Pin Height	Vertical Center of Pin	in (mm)	14.3 (365)		
	8	Overall Width		in (mm)	31.3		
	9	Wheelbase		in (mm)	42.7 (1084)		
	10	Overall Length		in (mm)	56.3 (1429)		
	11	Outside Turning Radius		in (mm)	50.7 (1289)		
	12	Ground Clearance	Center of Wheelbase		in (mm)	2 (50)	
	13	Tread Width		in (mm)	14.8 (376)		
	14	Step Height		in (mm)	6 (152)		
	15	Battery Compartment	Height	Std / Battery	in (mm)	31.2 x 14.1 x 32 (792 x 357 x 814)	
	16	Floor to Top of Battery Rollers		Side Extraction	in (mm)	5.6 (141)	
PERFORMANCE	17	Travel Speed		NL/RL	mph (km/h)	8.1 / 4.3 (13 / 7)	
	18	Gradeability		5 Minute Reading	%	20 / 6	
		Maximum Gradeability		5 Minute Reading	%	20 / 10	
	19	Drawbar Pull		5 Minute Reading	lbf (N)	225 (1000)	299 (1330)
		Drawbar Pull		60 Minute Reading	lbf (N)	719 (3200)	1011 (4500)
	20	Brake		Service / Parking		Electromagnetic	
WT.	21	Truck Weight	w/o Battery	NL	lb (kg)	2244.3 (1018)	2455 (1114)
	22	Axle Loading		Drive / Load Wheel	lb (kg)	1539 / 957 (698 / 434)	1765 / 941 (801 / 427)
WHLs & TIRES	23	Tire Type		Drive / Steer		Topthane / Polyurethane	
	24	Tire Size	Std	Drive / Steer	in	10 x 3.5 / 10 x 3.5	
	25	Wheels - Number	X=Driven	Drive / Steer		1X / 2	
ELECTRIC	26	Battery	Type			Lead Acid	
	27	Traction Motor	60 Minute Rating		hp (kW)	3.5 (2.6)	4.0 (3.0)
	28	Traction Motor		Type / Control Method		AC / Mosfet	
	29	Number of Speeds		Infinitely Variable			

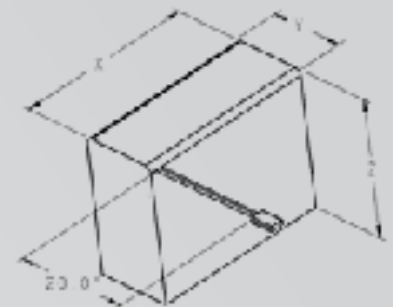
Above specifications, unless otherwise listed, are for a standard truck without optional equipment.

MO50-70T Battery & Compartment Specifications										
Battery Type	Battery Compartment Dimensions			Battery Dimensions			Number of Cells	Cell Size	Plates per Cell	Capacity
	Width	Length	Height	"X"	"Y"	"Z"				6 Hour Rate
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)				amp hr (kwh)
Industrial	31.2 (792.0)	14.1 (357.0)	32.0 (814.0)	26.1 (663)	12.8 (325)	23.3 (592)	12	85	11	425 (9.9)
				30.9 (785)	13.0 (330)	23.3 (592)	12	85	13	510 (11.9)
				30.9 (785)	13.0 (330)	26.2 (665)	12	100	13	600 (14.0)

Battery connector: 175 Amp, Red

Battery Lead: Length 20" (508mm), Position "B", 1/0 AWG

Battery Weight: Min. (372 kg) 820 lbs. and Max. (537 kg) 1184 lbs.



The Yale experience

With Yale, you know you're getting more than just a truck. You're getting the complete Yale experience. It's the promise we make that goes beyond our products, and our commitment to support you with the best service in the industry.



Dealer Network - Yale customers have direct access to the best forklift products and services through our extensive, independent dealer network, featuring 340 worldwide dealer locations (225 in the Americas) with an average of more than 25 years of experience in materials handling.



Financial Services - Yale® Financial Services specializes in financing your lift truck needs. Our programs make it easy to acquire the use of a lift truck or an entire fleet.



Fleet Management - Even if you operate other brands, we can manage your maintenance and replacement plan. We can offer complete fleet analysis, fleet history summary and a cost-effective proposal for replacement and scheduled maintenance.



Innovations - One size doesn't always fit all. Yale has engineered a variety of truck modifications to meet the ever-changing needs of its customers and their changing applications. In addition to standard and optional truck features, Yale offers an impressive list of special truck enhancements designed to increase your productivity.



Operator Training - Proper education in operating lift trucks minimizes the risk of injuries due to accidents while increasing productivity. Yale offers OSHA compliant materials that support the training of qualified operators.



Replacement Parts - Your authorized Yale® Lift Truck dealer offers genuine Yale parts and quality parts for other makes (PREMIER® Parts) as well as service programs - all designed to keep your trucks running efficiently and cost-effectively.



Rental - Long-term rental can provide flexibility for equipment and term tailored to your operation, fixed cost, maintenance and maximum uptime without major capital investment. Coupled with Yale dealers' extensive short term rental fleets, businesses can meet peak production or seasonal requirements while keeping their fleets sized for their everyday needs.



Truck performance may be affected by the condition of the vehicle, how it is equipped and the application. Consult your Yale® Industrial Truck Dealer if any of the information shown is critical to your application. Specifications are subject to change without notice.

This truck meets all applicable mandatory requirements of ANSI B56.1 Safety Standard for Powered Industrial Trucks at the time of manufacture. Classified by Underwriters' Laboratories, Inc., as to fire and electric shock hazard only for Type E industrial trucks.

The Yale® products included in this document may be covered by US patent 6,684,148 and other patents pending.



YALE MATERIALS HANDLING CORPORATION

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Manufactured in our own ISO 9001 and 14001 Registered Facilities