

4,000 lbs

Yale motorized hand trucks combine the latest in state-of-the-art technology and ergonomics making Yale the leader for walkie applications.

Controls

The ergonomically designed handle minimizes wrist movement and provides a solid grip for additional control while operating the unit. Lift, Lower, and Horn pushbuttons are conveniently located at the operator's fingertips. The butterfly throttle control provides multiple grip positions minimizing operator fatigue while allowing travel direction and speed to be selected by rotating the actuator in the desired direction of travel. Maneuverability and the operating position are optimized for transporting loads by the bottom-mounted control handle. When positioning loads in confined spaces, the standard Creep Speed Button allows the truck to be operated at limited speeds with the control handle in the full upright, vertical position.

The Traction Reversing Switch located on top of the handle simultaneously reverses truck direction and sounds the

horn should it come in contact with the operator. The wrap around design provides a large area of contact for the operator.

User Selectable Performance Modes

The truck has a choice of three pre-programmed performance modes that are selectable through the control handle. These modes alter the acceleration, deceleration and top speed of the truck, enabling the performance of the truck to be optimized for the particular work environment or the work cycle.

- **Mode 1** – Economy mode (battery saver) – Soft acceleration; reduced top travel speed with auto deceleration
- **Mode 2** – Performance with auto deceleration – Medium acceleration; reduced top travel speed with auto deceleration
- **Mode 3** – Performance without auto deceleration – Maximum acceleration; maximum top travel speed without auto deceleration

An additional “custom performance” mode is available and can be configured by your local Yale Dealer.

Electrical System

The MPB electrical system is designed with uptime and reliability in mind. Industry leading technology, Serial Bus Communications, Hall Effect Sensors, Proximity Switches and Transistor Controllers are incorporated into the design, reducing the number of wires, connectors, switches and contactors.

The 150 amp rated MOSFET Transistor motor controller in conjunction with the Separately Excited Motor (SEM) pro-

vides enhanced performance and battery efficiency in combination with higher top speeds when loaded and improved acceleration.

The controller has onboard diagnostics and comes standard with an LED fault indicator. An optional display gauge is available. Programmable features include, top speed, acceleration rate and auto deceleration.

The motor controller also provides an integral transistorized lift pump motor control, eliminating the lift pump contactor.

Low battery lift interrupt without display is standard.

Traction System

The traction system consists of the traction motor, gearbox, and brake. The UL listed traction motor is enclosed to shield it from contamination and comes standard with premium brushes. The proven gearbox design includes greasable steer bearings and heat treated gears that are lubricated in an oil bath to provide long life. The maintenance free electro-mechanical brake is mounted on the inboard side of the traction motor and is shielded by the gearbox housing protecting it from debris and contamination.

Hydraulic Components

The lift pump and motor assembly features a 1.0 kw permanent magnet motor and translucent hydraulic tank. The permanent magnet motor provides high efficiency and low noise. The translucent tank provides quick and easy inspection of hydraulic oil level. Soft start of the hydraulic motor is provided through the Transistor controller.

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Truck shown with optional equipment

MPB040-E Aisle Layout Dimensions

Dimension	Description		Fork Position	Dimensions - Inches (Millimeters)			
				Standard Fork Tip			"Short" E ¹
A	Fork Length	Nominal	—	36 (900)	42 (1050)	48 (1200)	48 (1200)
		Actual	—	35.4 (899)	41.3 (1049)	47.2 (1199)	45.2 (1148)
B	Wheel Base		Raised	39.7 (1008)	45.6 (1158)	51.5 (1308)	51.5 (1308)
			Lowered	43.1 (1095)	49.0 (1245)	54.9 (1395)	54.9 (1395)
C	Overall Length		—	56.8 (1442)	62.7 (1592)	68.6 (1742)	66.6 (1691)
D	Chassis Length		—	21.4 (544)	21.4 (544)	21.4 (544)	21.4 (544)
OTR (b)	Outside Turning Radius (bumper)		Raised	46.2 (1174)	52.1 (1324)	58.0 (1474)	58.0 (1474)
			Lowered	49.6 (1261)	55.6 (1411)	61.5 (1561)	61.5 (1561)
OTR (h)	Outside Turning Radius (handle)		Raised	47.5 (1206)	53.4 (1356)	59.3 (1506)	59.3 (1506)
			Lowered	50.9 (1293)	56.8 (1443)	62.7 (1593)	62.7 (1593)
E	Right Angle Stack (aisle)		Raised	61.5 (1562)	66.5 (1689)	71.3 (1810)	69.0 (1753)
	Right Angle Stack (truck)		Raised	—		100.4 (2550)	95.0 (2413)
F	Equal Intersecting Aisle		—	52.5 (1334)	54.9 (1394)	57.5 (1460)	56.0 (1422)
W	% Grade Clearance ²		Raised	67%	67%	67%	67%
X				40%	34%	30%	30%
Y				33%	33%	33%	33%
¹ Short Fork Tip - 45.2" fork length for handling 40" x 48" pallets							
² Measured to the bottom of a GMA approved pallet on the forks while they are in the raised position							

Fork Dimensions

Dimension	Description		Dimensions - Inches (Millimeters)		
a	Fork Spread Over All Width	Nominal	18 (460)	22.0 (560)	27 (670)
		Actual	18.1 (460)	22.0 (560)	26.4 (670)
b	Fork Width (Each)	Nominal	7.0 (170)		
		Actual	6.9 (170)		

Battery and Compartment Specifications

Battery	Capacity Amp-Hours	(6 hr rate) KWH	Battery Connector	Dimensions - Inches (Millimeters)			Weight lbs. (kg)
				"X"	"Y"	"Z"	
Standard Battery Pack with 12 Amp Charger	158	4.0	175 amp "X" Type Red	28.4" (721.4 mm)	7.9" (200.7 mm)	23.9" (607.1 mm)	310 lbs. (140 kg)
GNB PalletPro™ Battery Pack with 25 Amp Charger	195	4.4	175 amp Red	27.3" (693.4 mm)	7.5" (190.5 mm)	26.4" (670.6 mm)	375 lbs. (171 kg)

- Notes:**
- 1) Battery well 28.5" (724 mm) x 8.1" (206 mm) x Open. Battery size is limited by rounded corners of battery compartment. Maximum width and length dimensions cannot be used in conjunction with each other.
 - 2) Cable lead position "B"
 - 3) 16" cable length
 - 4) Maximum cable gauge of 1/0

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Forks and Frame

Robotically welded steel forks are formed and fabricated for strength and rigidity and include 1.25" x 1.25" push rods. The rugged gearbox is surrounded by a protective steel bumper.

All frame pivot points are equipped with heat treated, nickel plated linkage pins to resist corrosion. High pressure grease fittings are standard.

Pallet Entry and Exit

Yale fork design provides industry leading pallet entry and exit. The pallet entry/exit system consists of a tapered fork nose and pallet exit roller.

Wheels, Tires, and Casters

The standard load wheel configuration is a single load wheel with two roller bearings for long life. A "knock-out" axle provides for quick and easy maintenance.

A 9" x 5" press-on rubber drive tire is standard. The drive wheel is secured to the drive axle with 5 bolts.

Battery Pack and Charger

The battery pack consists of four premium 6 volt, deep-cycle flooded cell batteries, an integral 12 amp smart charger and a battery cover with hinged convenience tray. The top batteries swing out to enable easy inspection and maintenance of the two lower batteries. The charger operates from a 110 volt outlet and includes a detachable AC power cord with onboard storage com-

partment. Battery capacity is 158 AH at a 6 hour (185 AH at a 20 hour) rate.

To charge the batteries, simply attach the power cord to the charger and plug it into the outlet. The battery connector can remain connected to the truck while the batteries are being charged. The charger automatically prevents the truck from being driven. Once the power cord is disconnected from the outlet, the truck is again operational.

Battery connector – Standard is red, 175 amp "X" type connector.

Additional Features

Standard equipment includes key switch, electronic horn, creep speed control, and operator convenience tray. Paint – Gold and black.

Options

- Cooler/Freezer Package – Operating Temperatures: 0° to +120° F
- Sealed load wheel bearings
- "Short" E – 45.2" forks, tapered fork tips, angled bumper for easy maneuverability in tight areas
- Various fork lengths – 36", 42", and 48"
- Various fork over all widths – 18", 22" and 27"
- Load backrest – 48" or 60" bolt-on
- Combination hour meter, battery discharge indicator, lift interrupt indicator, and fault light display
- GNB PalletPro™ maintenance free battery pack with built in charger

Lift Specifications

5.0" lift 4,000 lb. capacity

Truck Weight

850 lb (386 kg) (with battery pack)

Power Voltage

24V

Travel Speeds

	mile/h	km/h
Empty	3.8	6.1
Loaded	3.4	5.5

Load Wheel Positioning

The load wheels will drop in the last opening of the pallet furthest from the operator when the pallet(s) length equals that of the forks. This opening must be at least nine inches in length and begin six inches from the end of the pallet. If the opening is less, the truck's lift height must be reduced depending on the opening width or the wheels will push-off the bottom boards. Contact your Yale Industrial Truck Dealer for details.

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 design specifications of ANSI B56.1 Safety Standard for Powered Industrial Trucks at the time of manufacture. Classified by Underwriters' Laboratories, Inc. as to fire hazard only for Type E industrial trucks.