



MCW-E

COUNTERBALANCED STACKER

2,500 · 3,000 · 4,000 lbs

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

The **MCW-E Counterbalanced Stacker** truck excels in manufacturing and warehousing applications where load transporting and stacking/retrieving is required.

Controls

Bottom control handle design provides full and easy control of steering.

Travel: Butterfly-switch mounted on handgrips provides thumb and forefinger control of forward or reverse operation and speed by either right or left hand.

Horn: Push button on steer handle enables operator to sound horn with either hand.

Reversing Switch: Push button at top of steer handle automatically reverses truck direction upon contact with the operator. Truck will not move toward the operator again until handle assembly is cycled through a raised “brake on” position.

Steering: Steering is obtained by mounting the drive unit on a large-diameter ball bearing designed to reduce friction and make steering easier. Bearing has alternating load bearing balls and slightly smaller spacer balls. Wide angle steering (180°) makes close-quarter operation and right angle turns easy.

Lift\Lower\Tilt: Hydraulic control levers at top of drive unit compartment cover provide smooth control of mast functions through spool-type control valve.

Electrical Components

Drive Motor: Vertically mounted on drive unit. Yale-built Class H motor is ball bearing equipped, series-wound with high starting torque.

Hoist Motor: Ball bearing equipped, series wound motor with high starting torque.

Wiring: Numerically coded for easy service. Wires in control handle are Teflon coated for durability and flexibility (to -40°C).

Driver Controller

The Curtis PMC Transistor unit provides smooth, totally stepless control of the truck’s travel speeds. The design provides 275 amps capability and features: fault detection and thermal protective slowdown; adjustment for plugging, current limit and acceleration; arcless forward and reverse contractor actuation and a static return-to-off system.

Drive Unit

Drive unit is mounted on a large-diameter, heavy duty steer bearing with three-point suspension to minimize mounting distortion or need for shimming. Bearing requires no adjustments, is greaseable and has shield on upper race. Double-reduction spiral-bevel drive gearing operates adjustment-free in a totally enclosed oil bath with all moving shafts supported by ball bearings. Drive wheel is bolted to axle flange permitting easy removal when required.

Hydraulic Components

Pump: High volume motor-driven gear type.

Hoist Unit: A single centered high-lift cylinder design (large 63mm ID) with hard-chrome plated piston gives smooth lift action.

Tilt Cylinders: Two rugged, double-acting, piston-type cylinders. Pivot-type mounting permits self alignment.

Lower Control Valve: Allows controlled lowering speeds.

Hydraulic Reservoir: Provides a large volume of oil, reducing oil heating and allowing higher system efficiency.

Brakes

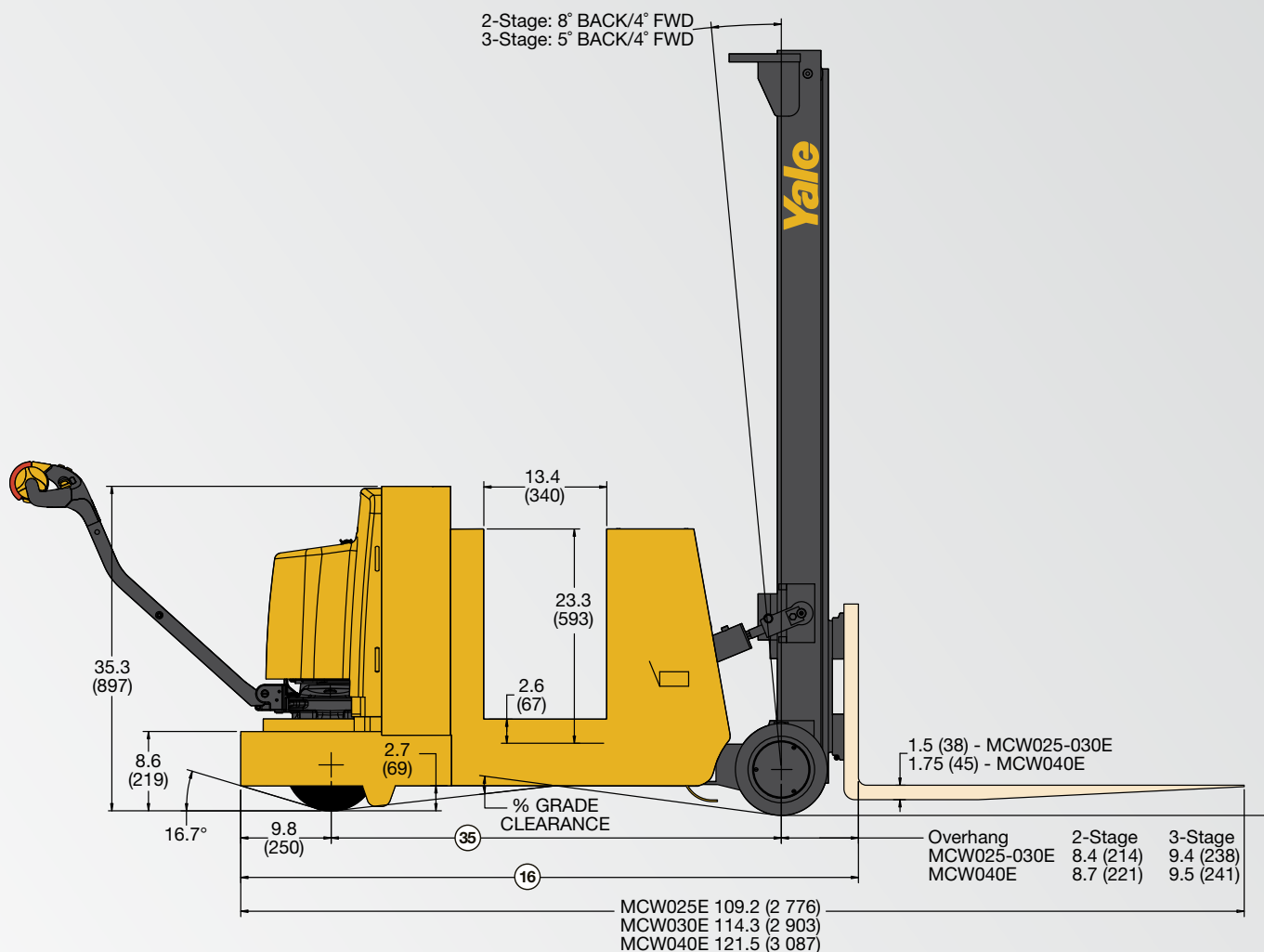
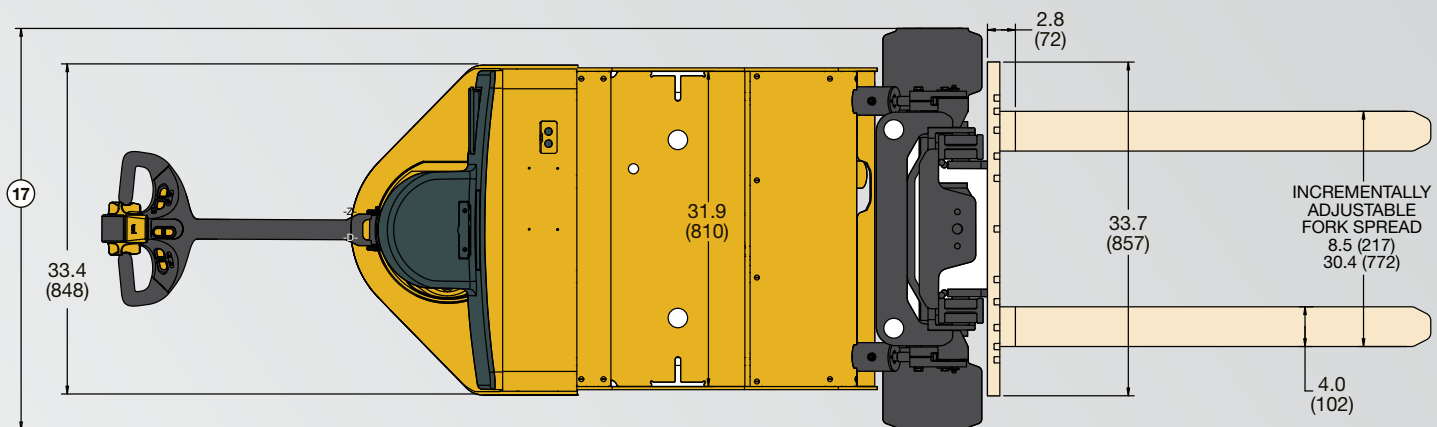
Power is cut off and brake is applied when steering handle is fully raised or lowered. Handle returns to 2550-1E vertical when released. Brake is external constricting shoe type, spring applied, and can be visually inspected or quickly replaced.

Mast, Carriage and Forks

Yale Hi-Vis™ masts provide outstanding visibility through the mast assembly. Mast is constructed of widespread outer channels and nested inner sections. Mast rails are specially rolled fine-grain steel. Wraparound cross-member and cross-braces provide added support for rails. Roller pressures are minimized through use of widely-spaced shimless load rollers. Side-thrust adjustment is accomplished without special tools of mast disassembly. Carriage side-thrust rollers resist pressure of off-center loads. Simplex mast has single-acting Yale-made hoist cylinder mounted between mast rails. Duplex and triplex masts employ two hoist cylinders mounted behind mast rails, and a third, free-lift cylinder for steady lifting. Hoist cylinder rods are hard-chrome plated. Cylinders are mounted on floating mounts that help prevent cylinder wear. Lowering speeds are controlled by velocity fuses in each cylinder base. Tilt cylinders are double acting with hard-chrome plated rods. The hydraulic control valve has an anticavation (tilt lock) feature. Hook-type carriage readily accepts attachments. Forks are heat-treated, forged steel with increased thickness in critical heel section.

(continued on back)





GENERAL	1	Manufacturer		Yale®						
	2	Model		MCW025	MCW030	MCW040				
	3	Rated Capacity	lb (kg)	2500 (1134)	3000 (1361)	4000 (1814)				
	4	Load Center Distance	in (mm)	24 (610)						
	5	Power Type		Electric						
	6	Operator type		Pedestrian						
	8	Tire type	load / drive	(C) Rubber/Rubber	(C) Rubber/Poly	(C) Poly/Poly				
	9	Wheels (Number x=Drive)	front / rear	2 / 1x						
	DIMENSIONS	10	Upright Lift With 2 Stage Mast	Lift Height (Top of Fork)	in (mm)	126 (3200)				
11		Standard Free Lift (Top of Fork)		in (mm)	6.2 (158)					
12		Standard Carriage Width		in (mm)	33.75 (857)					
13		Forks, Thickness/Width/Length	in (mm)	1.5x4x42 (30x102x1067)			1.75x5x42 45x127x1067			
14		Fork Spread (Outside Dimensions)	in (mm)	30.43 - 8.37 / (772 - 213)			30.43 - 10.32 (777 - 262)			
15		Tilt of Mast (Forward/Backward)	degrees	4° / 8°						
16		Overall Dimensions	Length To Face of Forks Simplex/Triplex	in (mm)	65.2 (1665) / 66.1 (1688)	70.2 (1793) / 71.1 (1816)	77.2 (971) / 78.1 (1994)			
17			Overall Width (Standard Tires)	in (mm)	38.3 (973)	40.3 (1024)				
18			Height With Collapsed Mast	in (mm)	83 (2110)					
19			Ht. Std. Upright Ext. W-W/O LBR	in (mm)	174 (4420) / 146 (3709)					
21		Turning Radius - Minimum (Outside)	in (mm)	66.0 (1676)	71.0 (1803)	78.0 (1992)				
22		Load Length, Front Overhang	in (mm)	8.44 (214)			8.69 (225)			
23		Aisle Width, Rt. Angle Stack (Add Length Of Load)	in (mm)	64.7 (1643)	69.7 (1770)	76.7 (1948)				
24		Equal Aisle, Equal Aisle (Less Load)	in (mm)	58.7 (1419)	61.7 (1567)	65.0 (1650)				
		Stability (Comply With ANSI?)		Yes						
PERFORMANCE	25	Travel Speeds, Loaded/No Load	mph (kmh)	2.1 / 3.0	2.9 / 3.3	2.0 / 2.9	2.7 / 3.3	2.5 / 3.2		
	26a	Lift Speed - Loaded	ft/min (m/s)	17	29	16	28	24		
	26b	Lift Speed - No Load	ft/min (m/s)	32	49	32	49	49		
	27	Lowering Speed - Loaded/No Load	ft/min (m/s)	72 / 68		74 / 68		76 / 68		
WT.	29	Gradeability, Loaded/No Load (1 MPH)	%	9%						
	31	Unloaded Weight, Standard Truck Less Battery	lb (kg)	3840 (1742)		4290 (1946)		4620 (2098)		
	32	Axle Loads, Static W/Rated Load - Front/Rear	lb (kg)	850 (385) / 665 (3016)		1000 (453) / 7400 (3356)		(431) / 8750 (3969)		
WHEELS/TIRES	33	Tire Size	Number - Front/Rear	2 / 1						
			Front - Drive	in	10 x 6		10 x 7			
			Rear - Loaded Wheels	in	10 x 5					
	35	Wheelbase Distance	in (mm)	49.0 (1245)	54.0 (1372)		61.0 (1549)			
	36	Tread, Center Of Tires - Front/Rear	in (mm)	33.3 (845)	35.3 (900)					
	37	Ground Clearance	Unloaded At Lowest Point	in (mm)	2.0 (50.8)					
Unloaded Center Of Wheelbase			in (mm)	3.3 (84.0)			3.3 (83.8)			
BATT.	40	Battery	Voltage	12-Volt	24-Volt	12-Volt	24-Volt	24-Volt		
			Type	Lead Acid						
			Ampere Hrs. (Max.)	ah	900	510	900	510	510	
			Minimum Weight	lb (kg)	400 (181)	500 (227)	400 (181)	500 (227)	700 (317)	
MOTORS	44	Electric Motors	Traction Motor - 60 Min. Rating	hp	1.43	1.54	1.43	1.54	1.54	
			Pump Motor - 15 Min. Rating	hp	4.5	6.56	4.5	6.56	4.5	6.56
			Traction Motor Control Method		Transistor					
			Number of Speeds		Infinitely Variable					
			45	Relief Pressure For Attachments	psi	2000			2500	
56	Grade Clearance	%	27		25		22			

* Based on triplex mast with maximum battery weight

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Frame

Heavy gauge plate and bar steel frame is electrically welded into a unit structure for maximum rigidity and strength. Battery compartment is an integral part of the frame.

Wheels

Drive Wheels: ball bearing mounted.

- MCW025 - 10" diameter x 5" face rubber (poly optional).
- MCW030-040 - 10" diameter x 5" face poly.

Load Wheels: tapered roller bearing mounted.

- MCW025-030 - 10" diameter x 6" face rubber (poly optional).
- MCW040 - 10" diameter x 7" face poly.

Additional Features

Standard equipment includes key/switch and electric horn push button mounted on steering handle. Lubrication fill and

drain plugs provided. Drive unit mounting race and all frame lubricating points are equipped with high pressure grease fittings.

Safety

Yale industrial trucks are equipped with certain safety devices as standard equipment. For example, all high-lift trucks are furnished with a load backrest extension and high-lift rider trucks with an operator's overhead guard, operator's restraint, and vertical battery restraint. When remote elevating control is specified, an operator's work platform is supplied.

Yale will supply only trucks equipped with required safety devices and strongly urges that these trucks be operated with the safety devices supplied.

Yale will not assume any liability for injuries or damage arising from or caused by the removal of any safety devices from any Yale product.

Options

- 12 volt PMC control
- Cold storage/corrosion protection
- Hour meter (Hobbs)
- Hour meter and discharge indicator with warning lamp (Curtis 802 R)
- Discharge indicator with warning lamp and lift interrupt (Curtis 933-1)
- Poly drive wheel (MCW025)
- Poly load wheel (MCW025-030)
- Sideshifter
- Push button lift and lower
- Battery compartment cover
- Battery rollers
- Rotary grip style control
- UL Classification Type EE

MCW025-030E STANDARD LIFT SPECIFICATIONS*					
Model	O.L.H.	Free Fork Ht.	Max. Fork Ht.	Tilt	Drive Tire Size
	in. (mm)	in. (mm)	in. (mm)	Rwd/Fwd	
Simplex	72 (1830)	6.2 (158)	104 (2640)	8/4	10 x 5
	77 (1955)	6.2 (158)	114 (2895)	8/4	10 x 5
	83 (2110)	6.2 (158)	126 (3200)	8/4	10 x 5
	92 (2335)	6.2 (158)	144 (3660)	8/4	10 x 5
	96 (2440)	6.2 (158)	152 (3860)	8/4	10 x 5
Duplex	72 (1830)	50.0 (1270)	106 (2710)	8/4	10 x 5
	77 (1955)	55.0 (1397)	116 (2960)	8/4	10 x 5
	83 (2110)	61.0 (1549)	128 (3265)	8/4	10 x 5
	92 (2335)	70.0 (1778)	146 (3725)	8/4	10 x 5
	96 (2440)	74.0 (1879)	154 (3925)	8/4	10 x 5
Triplex	72 (1830)	50.8 (1290)	157 (4000)	5/4	10 x 5
	77 (1955)	55.8 (1417)	172 (4380) †	5/4	10 x 5
	83 (2110)	61.8 (1570)	190 (4840) †	5/4	10 x 5
	92 (2335)	70.8 (1798)	217 (5525) †	5/4	10 x 5
	96 (2440)	74.8 (1900)	229 (5830) †	5/4	10 x 5

MCW040E STANDARD LIFT SPECIFICATIONS*					
Model	O.L.H.	Free Fork Ht.	Max. Fork Ht.	Tilt	Drive Tire Size
	in. (mm)	in. (mm)	in. (mm)	Rwd/Fwd	
Simplex	72 (1830)	6.2 (158)	100 (2540)	8/4	10 x 5
	77 (1955)	6.2 (158)	110 (2794)	8/4	10 x 5
	83 (2110)	6.2 (158)	122 (3098)	8/4	10 x 5
	92 (2335)	6.2 (158)	140 (3556)	8/4	10 x 5
	96 (2440)	6.2 (158)	148 (3759)	8/4	10 x 5
Duplex	72 (1830)	48.0 (1219)	104 (2640)	8/4	10 x 5
	77 (1955)	53.0 (1346)	114 (2895)	8/4	10 x 5
	83 (2110)	59.0 (1498)	126 (3200)	8/4	10 x 5
	92 (2335)	68.0 (1727)	144 (3660)	8/4	10 x 5
	96 (2440)	72.0 (1828)	152 (3860)	8/4	10 x 5
Triplex	72 (1830)	48.6 (1234)	153 (3886)	5/4	10 x 5
	77 (1955)	53.6 (1361)	168 (4267) †	5/4	10 x 5
	83 (2110)	59.6 (1514)	186 (4724) †	5/4	10 x 5
	92 (2335)	68.6 (1742)	213 (5410) †	5/4	10 x 5
	96 (2440)	72.6 (1844)	225 (5715) †	5/4	10 x 5

* For other available mast heights - Contact your local Yale Dealer
 Note: Without backrest. With backrest subtract 48" from mast O.L.H.
 † May have reduced capacity - Contact your local Yale Dealer.

BATTERY AND COMPARTMENT SPECIFICATIONS													
Model	Compartment Size			Battery Specifications									
				Size			Electrical			Weight			
	Width	Length	Height	Dim X	Dim Y	Dim Z	Volts	Plates	Max Amp Hr	Min	Max		
MCW025-40E	31.87	13.38	6.0-Open	Min	Max	Min	Max	Max	12	21	900	400	1400
				17.5	31.6	7.6	13.2	Open Well	24	13	510	400	1400



YALE MATERIALS HANDLING CORPORATION

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Manufactured in our own ISO 9001 and 14001 Registered Facilities

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.