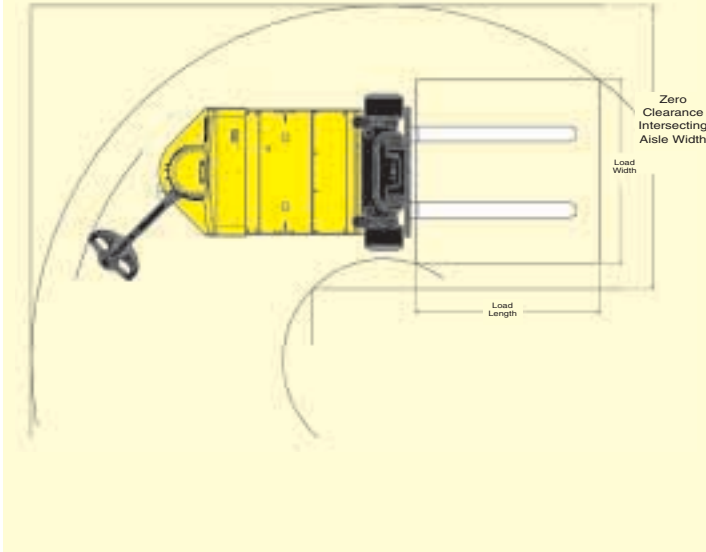
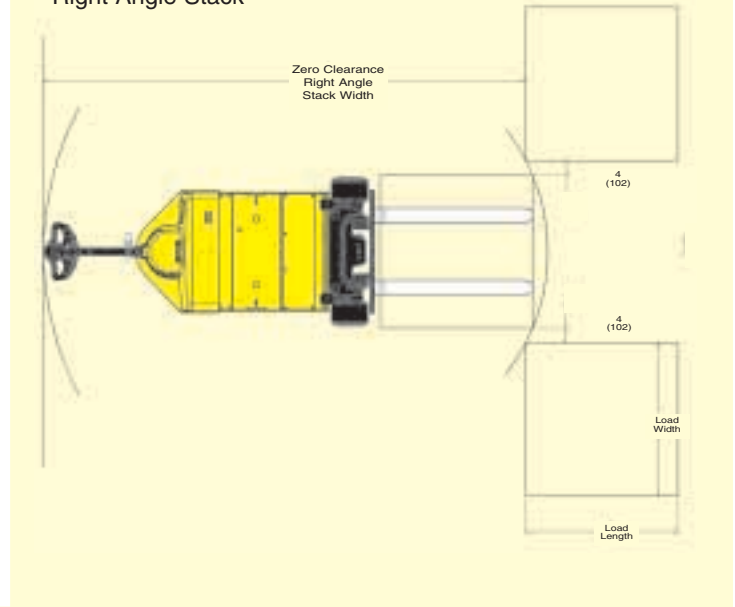


GENERAL	1	Manufacturer	Manufacturer Name		Yale	Yale	Yale
	2	Model	Manufacturer Designation		MCW025-E	MCW030-E	MCW040-E
	3	Capacity	Rated capacity	lb. (kg)	2500 (1130)	3000 (1360)	4000 (1820)
	4	Load Center	Distance	in. (mm)	24 (610)	24 (610)	24 (610)
	5	Power Type	Gasoline, LPG, Diesel, Electric		Electric	Electric	Electric
	6	Operator Type	Pedestrian, Stand-on, Seated Rider		Pedestrian	Pedestrian	Pedestrian
	8	Tire Type	Cushion, Solid, Pneumatic, etc.		Cushion	Cushion	Cushion
	9	Wheels	Number - Drive / Load		1/2	1/2	1/2
	10	Lift Height with Simplex Mast	Lift Height (Top of Fork)	in. (mm)	126 (3200)	126 (3200)	122 (3099)
11		Standard Free Lift (Top of Fork)	in. (mm)	6 (152)	6 (152)	6 (152)	
12		Maximum Carriage Width	in. (mm)	33.7 (857)	33.7 (857)	33.7 (857)	
13	Forks	Thickness/Width/Length	in. (mm)	1.5 x 4.0 x 42	1.5 x 4.0 x 42	1.75 x 4.0 x 42	
14	Fork Spread	Outside Dimension - Max	in. (mm)	30.4 (773)	30.4 (773)	30.4 (773)	
15	Tilt of Mast	Backward/Forward	degrees	5/4	5/4	5/4	
16	Overall Dimensions	Length To Face of Forks		67.3 (1709)	72.3 (1836)	79.5 (2020)	
17		Overall Width (Standard Tires)	in. (mm)	38.3 (973)	38.3 (973)	40.3 (1024)	
18		Lowered Overall Height (LOH)	in. (mm)	83 (2108)	83 (2108)	83 (2108)	
19		Maximum Fork Height (MFH)	in. (mm)	126 (3200)	126 (3200)	122 (3099)	
21	Turning Radius	Minimum (Outside)	in. (mm)	58.7 (1492)	63.7 (1619)	80.0 (1803)	
22	Overhang	C/L of Load Wheel to Face of Forks	in. (mm)	8.4 (214)	8.4 (214)	8.7 (221)	
23	Right Angle Stack		in. (mm)	See Chart	See Chart	See Chart	
24	Intersecting Aisle		in. (mm)	See Chart	See Chart	See Chart	
	Stability	Comply with ANSI?		Yes	Yes	Yes	
PERFORMANCE	25	Speeds	Voltage		24	24	24
			Travel Speed Max - With load	mph (kmh)	3.4 (5.5)	3.3 (5.3)	2.7 (4.3)
			No load		3.5 (5.6)	3.4 (5.5)	3.1 (5.0)
	26		Lift Speed - With load	ft/min (m/s)	28 (.14)	26 (.13)	22 (.11)
			No load		36 (.18)	36 (.18)	36 (.18)
27	Lowering Speed - With load	ft/min (m/s)	70 (.35)	74 (.37)	78 (.38)		
	No load		60 (.30)	60 (.30)	60 (.30)		
29	Gradeability		%	10	10	10	
WEIGHT	31	Unloaded Weight	Standard Truck Without Battery	lb. (kg.)	4194 (1906)	4917 (2235)	5496 (2493)
	32	Axle Loads	No Load - Drive/Load with Min Battery	lb. (kg.)	2339 (1063)/ 2455 (1111)	2811 (1278)/ 2706 (1230)	3123 (1420)/ 2973 (1351)
WHEELS AND TIRES	33	Tire Size	Number - Drive/Load		1/2	1/2	1/2
			Drive		10" x 5" Poly	10" x 5" Poly	10" x 5" Poly
	34	Load		10" x 6" Poly	10" x 6" Poly	10" x 7" Poly	
	35	Wheelbase	Distance	in. (mm)	49 (1245)	54 (1372)	61 (1549)
GROUND CLEARANCE	37	Ground Clearance	No Load at Lowest Point	in. (mm)	0.6 (15)	0.6 (15)	0.6 (15)
	38		No Load at Center of Wheelbase	in. (mm)	2.8 (69)	2.8 (69)	2.8 (69)
BATTERY	41	Battery	Voltage		24	24	24
	42		Type		Lead Acid	Lead Acid	Lead Acid
			Amphere Hours (Max)		510	510	510
	43		Minimum Weight		600 (273)	600 (273)	600 (273)
MOTOR	45	Electric Motors	Traction Motor - 60 Min Rating	hp (Kw)	2.30 (1.70)	2.30 (1.70)	2.30 (1.70)
			Pump Motor - 15 min Rating	hp (Kw)	4.02 (3.00)	4.02 (3.00)	4.02 (3.00)
	46		Traction Motor Control Method		Transistor	Transistor	Transistor
	47		Number of Speeds		Infinitely Variable	Infinitely Variable	Infinitely Variable
	48		Relief Press		psi	2900	2900
49	Grade Clearance	% Clearance 13.4" Comp	%	22.7	20.9	18.8	

Intersecting Aisle



Right Angle Stack



Intersecting Equal Aisle 2,500, 3,000 and 4,000 Lbs. Capacity Counterbalanced Stacker

Load Width	MCW025-E				MCW030-E				MCW040-E			
	Load Length				Load Length				Load Length			
	36	40	42	48	36	40	42	48	36	40	42	48
36	61	63	65	68	62	64	65	69	75	77	78	81
40	61	63	65	68	62	64	65	69	75	77	78	81
42	62	64	66	69	63	65	66	70	76	77	78	81
48	67	69	70	74	68	70	71	74	78	80	81	86

Note: It is recommended to add a minimum 6"-12" for clearance.

Right Angle Stack 2,500, 3,000 and 4,000 Lbs. Capacity Counterbalanced Stacker

Load Width	MCW025-E				MCW030-E				MCW040-E			
	Load Length				Load Length				Load Length			
	36	40	42	48	36	40	42	48	36	40	42	48
36	125	130	132	138	130	134	137	143	137	142	144	150
40	125	130	132	138	130	134	137	143	137	142	144	150
42	125	130	132	138	130	134	137	143	137	142	144	150
48	125	130	132	138	130	134	137	143	137	142	144	150

Note: It is recommended to add a minimum 6"-12" for clearance and stacking.

Standard Specifications 2,500, 3,000 and 4,000 Lbs. Capacity Counterbalanced Stacker

Model	MCW025-E	MCW030-E	MCW040-E
Rated Capacity	2,500	3,000	4,000
Wheelbase	49	54	61
Battery Compartment	13.4	13.4	13.4
Length to Face of Forks*	67.3	72.3	79.5
Overall Length	109.3	114.3	121.5
Truck Width	38.3	38.3	40.3
% Grade Clearance	22.7%	20.9%	18.8%

Note: Overall length with 42" forks
*For Triplex Mast add 2"

Battery and Compartment Specifications 2,500, 3,000 and 4,000 Lbs. Capacity Counterbalanced Stacker

No. of Cells	Cell Size	Plates per Cell	Capacity Amp-Hours	"X" Dim	"Y" Dim	"Z" Dim	Weight
12	75	11	375	26.5	13.0	23.3	825 lbs.
12	85	11	425	26.1	12.8	23.3	865 lbs.
12	75	13	450	30.9	13.0	23.3	987 lbs.
12	85	13	510	30.9	13.0	23.3	1035 lbs.

Notes: 1) Steel tray with cover required for all batteries, 2) Battery connector type 175 Red (Gray is optional), 3) Cable lead position "B", 4) 20" cable length, 5) Maximum cable gauge of 1/0
6) Battery well: 33" x 13.5" x open

Standard Lift Specifications 2,500, 3,000 and 4,000 Lbs. Capacity Counterbalanced Stacker

For other available mast heights – contact your Yale Dealer

Lowered Overall Height	Lift Height	Free Lift	Extended Height
MCW025-030-E SIMPLEX MASTS			
72 (1829)	104 (2642)	6 (152)	152 (3861)
77 (1956)	114 (2896)		162 (4115)
83 (2108)	126 (3200)		174 (4420)
92 (2337)	144 (3658)		192 (4877)
96 (2438)	152 (3861)		200 (5080)
MCW025-030-E TRIPLEX MASTS			
72 (1829)	157 (3988)	50 (1270)	205 (5207)
77 (1956)	172 (4369)	55 (1397)	220 (5588)
83 (2108)	190 (4826)	61 (1549)	238 (6045)
92 (2337)	217 (5512)	70 (1798)	265 (6731)
96 (2438)	229 (5817)	74 (1900)	277 (7036)
MCW040-E SIMPLEX MASTS			
72 (1829)	100 (2540)	6 (152)	148 (4775)
77 (1956)	110 (2794)		158 (4013)
83 (2108)	122 (3099)		170 (4318)
92 (2337)	140 (3556)		188 (4775)
96 (2438)	148 (3759)		196 (4978)
MCW040-E TRIPLEX MASTS			
72 (1829)	153 (3886)	47 (1194)	201 (5105)
77 (1956)	168 (4267)	52 (1321)	216 (5486)
83 (2108)	186 (4724)	58 (1473)	234 (5944)
92 (2337)	213 (5410)	67 (1702)	261 (6629)
96 (2438)	225 (5715)	71 (1803)	273 (6934)

(Continued from front page)

motor pinion, and drive axle string guard. The maintenance-free steer bearings are sealed within the gearbox housing and lubricated by the gear oil. The stationary traction motor eliminates power cable tension and flex. The integral pinion and support bearings optimize the gear mesh resulting in a quieter gearbox. The splined coupling allows for quick removal and installation of the traction motor. The drive axle string guard minimizes axle seal damage from shrink-wrap, banding, etc.

The electronically released, mechanically applied brake is mounted on top of the traction motor for ease of inspection and maintenance. The brake is controlled by a handle position switch which prevents the truck from moving when the tiller handle is fully raised or fully lowered.

Hydraulic Components

The high performance hydraulic system is designed for high cycle, multi-shift operations. The hydraulic power pack features a series wound motor and translucent hydraulic tank. The series wound motor provides high torque, low noise and is easily serviceable. The translucent tank provides quick and easy inspection of hydraulic oil level. Fully proportional lift/lower controls provide smooth operation while reducing noise levels.

Mast, Carriage and Forks

The Yale mast is available in simplex and triplex configurations for various heights. Yale Hi-Vis triplex masts provide outstanding visibility through the mast assembly. Mast is constructed of widespread outer channels and nested inner sections. Mast channels are specially rolled fine-grain steel. Wrap around cross-member and cross-braces provide added support for channels. Roller pressures are minimized through use of widely spaced shimless load rollers. Side-thrust adjustment is accomplished without special tools or mast disassembly. Simplex mast has single-acting Yale-made hoist cylinder mounted between mast channels. Triplex masts employ two hoist cylinders mounted behind mast channels,

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 a valve in the manifold block. Controlled descent is assured by velocity fuses in each cylinder base. Hook-type carriage readily accepts attachments. Forks are heat treated, forged steel with increased thickness in critical heel section. The standard tilting mast with dual tilt cylinders provides 5° backward/4° forward tilt. Tilt pivot points are equipped with high pressure lubrication fittings for long service life.

Wheels and tires

The standard load wheel configuration is a poly load wheel with tapered roller bearings. The load wheel compound is 92 durometer polyurethane and measures 10" X 6" on the MCW025-E and MCW030-E. The MCW040-E load wheels are 10" X 7" poly.

A 10" X 5" diameter poly drive tire is standard. The drive wheel is secured to the axle with 5 bolts.

Additional Features

- Lubrication – Fill and drain plugs are provided
- Battery connector – Standard is (red) 175 amp connector
- Standard equipment includes key switch and an electronic horn
- 48" load backrest is standard

Options

- Cold Storage/Freezer Package to -15° F
- Multi-function display with BDI, hour meter and fault light
- Sideshifter (4" each side of center)
- Various mast options
- Creep speed control
- Various fork lengths
- Keyless toggle ignition switch
- 10" x 5" siped poly drive tire
- 10" x 7" polyurethane load wheels
- Battery rollers (10.25" from floor to top of rollers)
- Optional batteries

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.



Manufactured in our own ISO 9002 Registered Facilities

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1400 Sullivan Drive, Greenville, NC 27835

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Yale

Motorized Hand Counterbalance Stacker

MCW025-E
MCW030-E
MCW040-E

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

Controls

Travel direction and speed are selected by rotating the actuator in the desired direction of travel. The butterfly throttle control provides multiple grip positions minimizing operator fatigue. The stationary portion of the handle minimizes wrist movement and provides a solid grip while maneuvering the truck. This assures additional stability while driving the truck. The bottom-mounted tiller handle optimizes the operating position.

Lift, Lower, Tilt and Horn push-buttons are conveniently located on the handle. Right hand push-buttons provide variable speed lift/lower for accurate load placement. Left hand push-buttons are used to control either single speed lift/lower or an optional sideshifter. Tilt is activated by depressing the buttons located on the top center of the handle. 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 protection through the full range of handle movement. This switch is reset when the direction control is returned to neutral or the handle is moved to the brake "on" position.

Electrical System

The electrical system utilizes SEM technology with integral hoist control. Separately Excited Motor (SEM) provides the ability to control the traction motor fields and armature independently. This results in enhanced performance and battery efficiency. In combination with the Metal Oxide Semiconductor Field Effect Transistor (MOSFET) motor controller we have reduced wearable components, eliminated forward/reverse contactors and improved performance. The SEM control system provides higher top speeds when loaded and improved acceleration. Variable regenerative braking occurs when the throttle control is reversed. Regenerative braking improves traction motor brush life. The controller has an Auto Deceleration System to decelerate the truck as the butterfly throttle is moved toward the neutral position. The controller senses when the truck is stopped and automatically applies the brake. The Auto Deceleration System reduces the need to manually apply a service brake for slow down. The controller has a programmable setup including parameters for acceleration,

auto deceleration and top travel speed. Diagnostic information can be read using a hand-held programmer tool or by looking at the status of the LED indicator mounted on the controller. A solid-state circuit is used to control the pump motor and eliminates the lift contactor.

User Selectable Performance Modes

The operator has a choice of three pre-programmed performance modes that are selectable through the tiller handle. These modes alter the acceleration, deceleration and top speed of the truck.

- Mode 1 – Economy mode (battery saver)
 - Soft acceleration; reduced top travel speed with auto deceleration adjusted to a high level
- Mode 2 – Performance with auto deceleration
 - Medium acceleration; reduced top travel speed with auto deceleration adjusted to a high level

- Mode 3 – Performance with minimum auto deceleration
 - High acceleration; high top travel speed with auto deceleration adjusted to a minimum level

Adjustable performance modes enable the operator to optimize the performance of the truck to the particular work environment or the work cycle. The operator can select the desired mode using the controls on the handle. In addition, an optional "custom performance" mode is available and can be configured by your local Yale Dealer.

Traction System

The traction system consists of the traction motor, gearbox, and brake. The UL approved traction motor with premium brushes and Class H insulation provides maximum thermal protection. The innovative gear box design incorporates maintenance-free steer bearings, a stationary mounted traction motor, integrated

(Continued on back page)

