

# MRE series

1,000kg / 1,200kg / 1,400kg

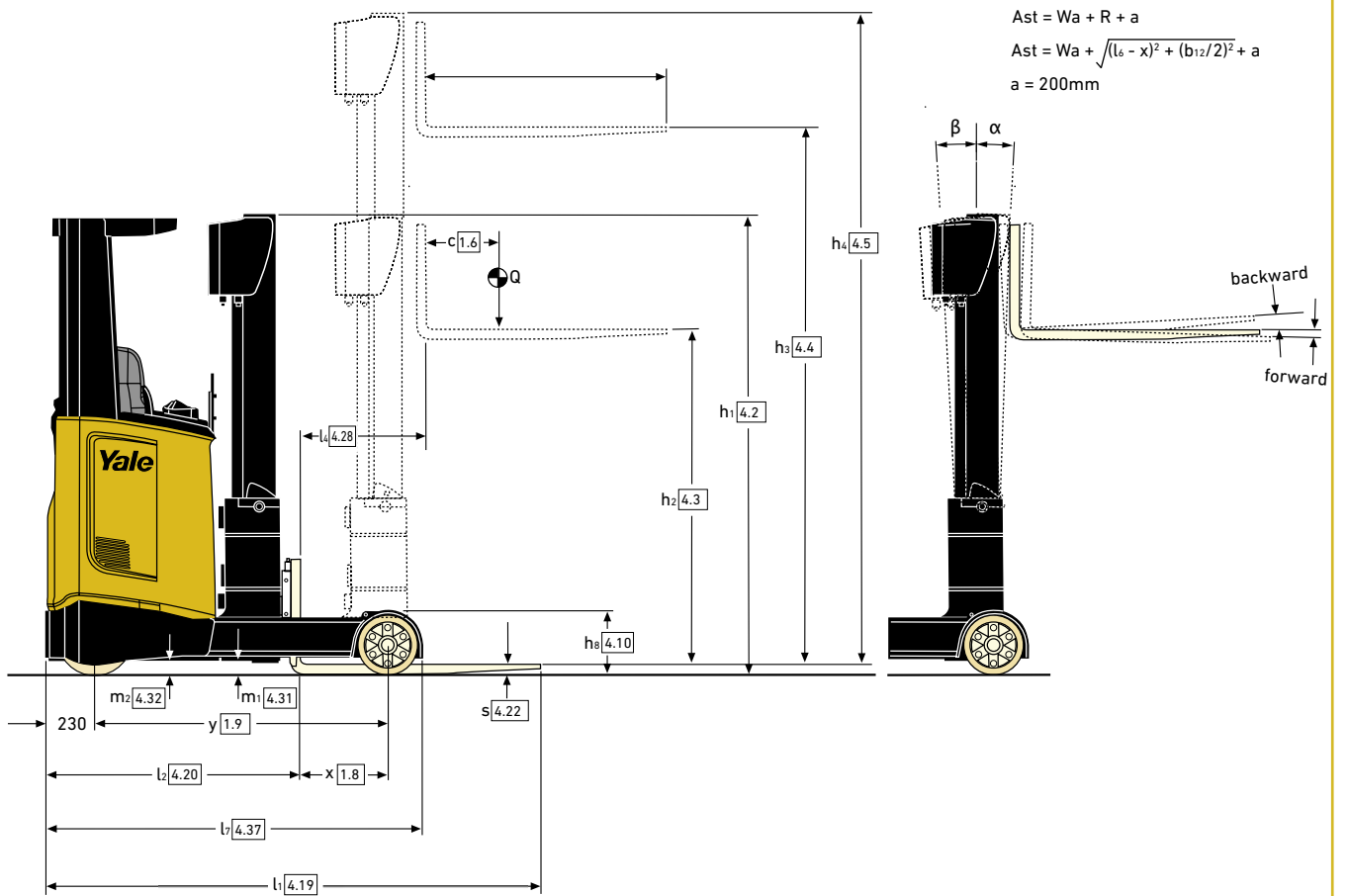
## Tilting Mast Reach Truck



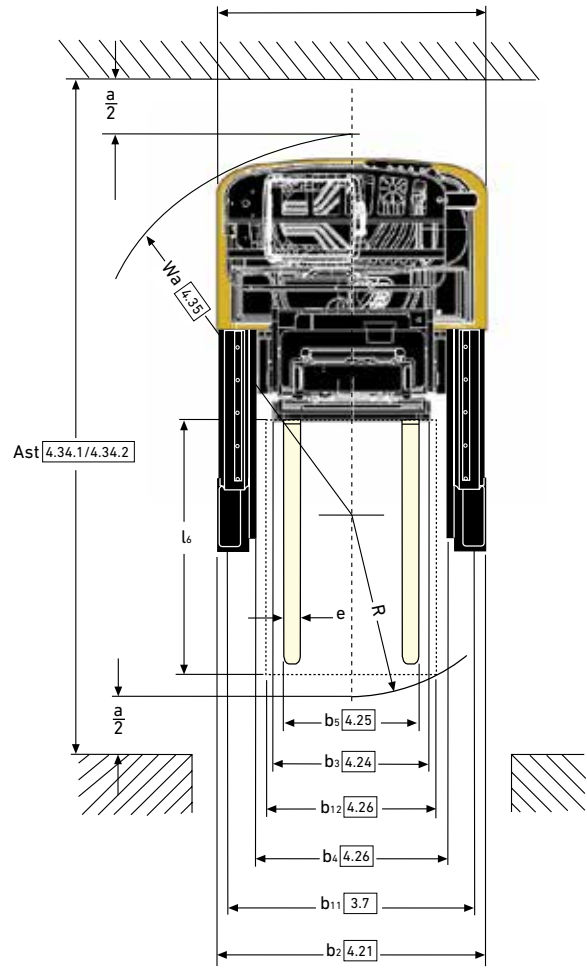
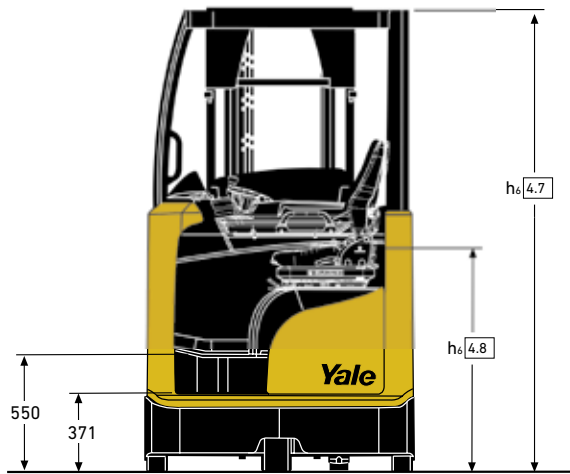
## SPECIFICATION SHEET

Models: MR10E, MR12E, MR14E

# Truck Dimensions



# Truck Dimensions



## VDI 2198 General Specifications

		Yale					
		MR10E	MR12E	MR14E			
General	1.1	Manufacturer (abbreviation)	Yale				
	1.2	Manufacturer's type designation	MR10E	MR12E	MR14E		
	1.3	Drive	Electric (battery)				
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated				
	1.5	Rated capacity/Rated load	Q (kg)	1.0	1.2	1.4	
	1.6	Load centre distance	c (mm)	600			
	1.8	Load distance, centre of drive axle to fork	x (mm)	181		371	
	1.9	Wheelbase	y (mm)	1300		1400	
	Weight	2.1	Service weight	2845		2948	
2.3		Axle loading, unladen front/rear <sup>(1)</sup>	1622 / 1223		1851 / 1097		
2.4		Axle loading fork advanced, laden front/rear	810 / 3035	695 / 3350		694 / 3654	
2.5		Axle loading fork retracted, laden front/rear	1288 / 2557	1222 / 2823		1605 / 2743	
Wheels		3.1	Tyres: polyurethane, tophane, NDIIthane, front/rear	NDIIthane			
	3.2	Tyre size, front	ø mm x mm			343 x 140	
	3.3	Tyre size, rear	ø mm x mm		220 x 85	285 x 100	
	3.5	Wheels, number front/rear (x = driven wheels)				1 x / 2	
	3.7	Tread, rear	b11 (mm)	990		1155	
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α / β (°)		1 / 3	
		4.2	Height of mast, lowered	h1 (mm)		2191	
4.3		Free lift	h2 (mm)		1706		
4.4		Lift	h3 (mm)		5000		
4.5		Height, mast extended <sup>(2)</sup>	h4 (mm)		5560		
4.7		Height of overhead guard (cabin) <sup>(3)</sup>	h6 (mm)		2175		
4.8		Seat height relating to SIP	h7 (mm)		1082		
4.10		Height of wheel arms	h8 (mm)		235	308	
4.19		Overall length	l1 (mm)		2500	2411	
4.20		Length to face of forks	l2 (mm)		1350	1261	
4.21		Overall width <sup>(4)</sup>	b1 / b2 (mm)		1125	1265	
4.22		Fork dimensions DIN ISO 2331	s/e/l (mm)		40 / 80 / 1150		
4.23		Fork carriage ISO 2328, class/type A, B			2A		
4.24		Fork-carriage width	b3 (mm)		700		
4.25		Distance between fork-arms min/max <sup>(5)</sup>	b5 (mm)		220 / 640		
4.26		Distance between wheel arms/loading surfaces	b4 (mm)		900		
4.28		Reach distance	l4 (mm)		341	560	
4.31		Ground clearance, laden, below mast	m1 (mm)		75		
4.32		Ground clearance, centre of wheelbase	m2 (mm)		75	85	
4.34.1		Aisle width for pallets 1000mm x 1200mm crossways	Ast (mm)		2770	2741	
4.34.2		Aisle width for pallets 800mm x 1200mm lengthwise	Ast (mm)		2850	2792	
4.35	Turning radius	Wa (mm)		1555	1672		
4.37	Length across wheel arms	l7 (mm)		1660	1795		
4.42	Step height (from ground to running board)	mm		550			
4.43	Step height (between intermediate steps between running board and floor)	mm		371			
Performance data	5.1	Travel speed, laden/unladen	km/h		11 / 11		
	5.1.1	Travel speed, laden/unladen, backwards	km/h		11 / 11		
	5.2	Lift speed, laden/unladen	m/s		0.45 / 0.70	0.35 / 0.70	
	5.3	Lowering speed, laden/unladen	m/s		0.55 / 0.45		
	5.4	Reaching speed, laden/unladen	m/s		0.15 / 0.15		
	5.7	Gradeability, laden/unladen	%		9.0 / 12.7	8.5 / 12.7	7.6 / 11.9
	5.8	Max. gradeability laden/unladen	%		14.6 / 20.2	13.8 / 20.2	12.5 / 19.0
	5.9	Acceleration time laden/unladen	s		5.5 / 4.9	5.6 / 4.9	5.7 / 4.8
	5.10	Service brake			Electric		
	Electric Motor	6.1	Drive motor S2 60 minute rating	kW		5.4	
6.2		Lift motor, S3 15% rating	kW		9.9		
6.3		Battery according to DIN 43531 / 35 / 36 A,B,C, no			B	C	
6.4		Battery voltage/nominal capacity K5	(V) / (Ah)		48 / 560 <sup>(7)</sup>		
6.5		Battery weight <sup>(6)</sup>	kg		937	939	
6.6		Energy consumption according to VDI cycle	kWh/h @ Nr of Cycles		2.9	3.4	3.9
8.1	Type of drive unit			AC-Controller			
10.7	Sound pressure level at the driver's seat	dB (A)		69.55			

(1) Forks retracted.

(2) With load backrest 1000mm height, h4 + 508 mm; with load backrest 1500mm height, h4 + 1008mm

(3) With beacon h6 + 120mm; With OHG Grid Protector h6 + 20mm ; With OHG Screen Protector h6 + 30mm .

(4) With load wheels lateral covers: 1289mm (R1.4E/MR14E).

(5) Side shift stroke is +/-75mm.

(6) These values may vary of +/- 5%.

(7) See "Batteries table".

**All values are nominal values and they are subject to tolerances**  
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## MR10E truck dimensions for batteries

Distinguishing mark	MR10E												
	1.2	Manufacturer's type designation											
	1.8	Load distance, centre of drive axle to fork	x (mm)	361	361	361	271	271	271	181	181	181	181
1.9	Wheelbase	y (mm)	1300										
Weights	2.1	Service weight	kg	2389	2389	-	2602	2602	-	2845	2845	-	-
	2.3	Axle loading, unladen front/rear <sup>(1)</sup>	kg	1522 / 867	1522 / 867	-	1571 / 1031	1571 / 1031	-	1622 / 1223	1622 / 1223	-	-
	2.4	Axle loading fork advanced, laden front/rear	kg	577 / 2812	577 / 2812	-	693 / 2909	693 / 2909	-	810 / 3035	810 / 3035	-	-
	2.5	Axle loading fork retracted, laden front/rear	kg	1327 / 2062	1327 / 2062	-	1306 / 2296	1306 / 2296	-	1288 / 2557	1288 / 2557	-	-
	4.19	Overall length	l1 (mm)	2320	2320	2320	2410	2410	2410	2500	2500	2500	2500
Dimensions	4.20	Length to face of forks	l2 (mm)	1170	1170	1170	1260	1260	1260	1350	1350	1350	1350
	4.28	Reach distance	l4 (mm)	521	521	521	431	431	431	341	341	341	341
	4.34.1	Aisle width for pallets 1000mm x 1200mm crossways <sup>(2)</sup>	Ast (mm)	2632	2632	2632	2700	2700	2700	2770	2770	2770	2770
	4.34.2	Aisle width for pallets 800mm x 1200mm lengthwise <sup>(2)</sup>	Ast (mm)	2685	2685	2685	2766	2766	2766	2850	2850	2850	2850
	4.35	Turning radius	Wa (mm)	1555	1555	1555	1555	1555	1555	1555	1555	1555	1555
	Electric-engine	6.3	Battery according to DIN 43531 / 35 / 36 A,B,C, no		B	B	no	B	B	no	B	B	no
6.4		Battery voltage/nominal capacity K5	(V) / (Ah)	48/280	48/310	48/360 <sup>(3)</sup>	48/420	48/465	48/288 <sup>(3)</sup>	48/560	48/620	48/360 <sup>(3)</sup>	48/432 <sup>(3)</sup>
6.5		Battery weight <sup>(3)</sup>	kg	541	543	544	746	750	746	937	945	937	937

## MR12E truck dimensions for batteries

Distinguishing mark	MR12E												
	1.2	Manufacturer's type designation											
	1.8	Load distance, centre of drive axle to fork	x (mm)	361	361	361	271	271	271	181	181	181	181
1.9	Wheelbase	y (mm)	1300										
Weights	2.1	Service weight	kg	2389	2389	-	2602	2602	-	2845	2845	-	-
	2.3	Axle loading, unladen front/rear <sup>(1)</sup>	kg	1522 / 867	1522 / 867	-	1571 / 1031	1571 / 1031	-	1622 / 1223	1622 / 1223	-	-
	2.4	Axle loading fork advanced, laden front/rear	kg	462 / 3127	462 / 3127	-	577 / 3225	577 / 3225	-	695 / 3350	695 / 3350	-	-
	2.5	Axle loading fork retracted, laden front/rear	kg	1288 / 2301	1288 / 2301	-	1254 / 2548	1254 / 2548	-	1222 / 2823	1222 / 2823	-	-
	4.19	Overall length	l1 (mm)	2320	2320	2320	2410	2410	2410	2500	2500	2500	2500
Dimensions	4.20	Length to face of forks	l2 (mm)	1170	1170	1170	1260	1260	1260	1350	1350	1350	1350
	4.28	Reach distance	l4 (mm)	521	521	521	431	431	431	341	341	341	341
	4.34.1	Aisle width for pallets 1000mm x 1200mm crossways <sup>(2)</sup>	Ast (mm)	2632	2632	2632	2700	2700	2700	2770	2770	2770	2770
	4.34.2	Aisle width for pallets 800mm x 1200mm lengthwise <sup>(2)</sup>	Ast (mm)	2685	2685	2685	2766	2766	2766	2850	2850	2850	2850
	4.35	Turning radius	Wa (mm)	1555	1555	1555	1555	1555	1555	1555	1555	1555	1555
	Electric-engine	6.3	Battery according to DIN 43531 / 35 / 36 A,B,C, no		B	B	no	B	B	no	B	B	no
6.4		Battery voltage/nominal capacity K5	(V) / (Ah)	48/280	48/310	48/360 <sup>(3)</sup>	48/420	48/465	48/288 <sup>(3)</sup>	48/560	48/620	48/360 <sup>(3)</sup>	48/432 <sup>(3)</sup>
6.5		Battery weight <sup>(3)</sup>	kg	541	543	544	746	750	746	937	945	937	937

## MR14E truck dimensions for batteries

Distinguishing mark	MR14E												
	1.2	Manufacturer's type designation											
	1.8	Load distance, centre of drive axle to fork	x (mm)	427	427	427	371	371	371	371	371	371	371
1.9	Wheelbase	y (mm)	1400										
Weights	2.1	Service weight	kg	2716	2716	-	2948	2948	-	-	-	-	-
	2.3	Axle loading, unladen front/rear <sup>(1)</sup>	kg	1758 / 958	1758 / 958	-	1851 / 1097	1851 / 1097	-	-	-	-	-
	2.4	Axle loading fork advanced, laden front/rear	kg	562 / 3554	562 / 3554	-	694 / 3654	694 / 3654	-	-	-	-	-
	2.5	Axle loading fork retracted, laden front/rear	kg	1568 / 2548	1568 / 2548	-	1605 / 2743	1605 / 2743	-	-	-	-	-
	4.19	Overall length	l1 (mm)	2351	2351	2351	2411	2411	2411	2411	2411	2411	2411
Dimensions	4.20	Length to face of forks	l2 (mm)	1205	1205	1205	1261	1261	1261	1261	1261	1261	1261
	4.28	Reach distance	l4 (mm)	617	617	617	560	560	560	560	560	560	560
	4.34.1	Aisle width for pallets 1000mm x 1200mm crossways <sup>(2)</sup>	Ast (mm)	2702	2702	2702	2741	2741	2741	2741	2741	2741	2741
	4.34.2	Aisle width for pallets 800mm x 1200mm lengthwise <sup>(2)</sup>	Ast (mm)	2743	2743	2743	2792	2792	2792	2792	2792	2792	2792
	4.35	Turning radius	Wa (mm)	1672	1672	1672	1672	1672	1672	1672	1672	1672	1672
	Electric-engine	6.3	Battery according to DIN 43531 / 35 / 36 A,B,C, no		C	C	no	C	C	no	no	no	no
6.4		Battery voltage/nominal capacity K5	(V) / (Ah)	48/420	48/465	48/288 <sup>(3)</sup>	48/560	48/620	48/432 <sup>(3)</sup>	48/540 <sup>(3)</sup>	48/540 <sup>(3)</sup>	48/540 <sup>(3)</sup>	48/540 <sup>(3)</sup>
6.5		Battery weight <sup>(3)</sup>	kg	750	750	750	939	950	939	939	939	936	936

(1) These values may vary of +/- 5% (2) Forks retracted (3) Li-Ion battery All weights (2.1 to 2.5) are with lowest mast and standard forks.

## MR10E, MR12E, MR14E - Mast details, 3 stage full free lift (B708)

	Tilt $\alpha / \beta$ °	Lift (h3) mm	Free lift (h2) mm	Height of mast lowered (h1) mm	Height of mast extended (h4) <sup>(1)</sup> mm	Weight <sup>(2) (3)</sup> kg
<b>MR10E</b>	1°/3°	5000	1706	2191	5560	629
	1°/3°	5250	1792	2277	5810	645
	1°/3°	5500	1878	2363	6060	662
	1°/3°	5750	1964	2449	6310	717
<b>MR12E</b>	1°/3°	6000	2050	2535	6560	736
<b>MR14E</b>	1°/3°	6250	2136	2621	6810	754
	0,5°/1°	6500	2222	2707	7060	772
	0,5°/1°	6750	2308	2793	7310	797
	0,5°/1°	7000	2394	2879	7560	815
	0,5°/1°	7250	2480	2965	7810	834
	0,5°/1°	7500	2566	3051	8060	852

(1) With load backrest 1000mm height, h4 + 508mm; with load backrest 1500mm height, h4 + 1008mm

(2) All weights are: mast structures (weldment, cylinders, chain, pulley) + carriage + oil.  
EXCLUDED: forks, accessories.

(3) With load backrest 700 mm width, 1000 mm height, weight + 18 kg; with load backrest 700mm width, 1500 mm height, weight + 26 kg

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## Standard equipment and options

	MR10E	MR12E	MR14E	
<b>Construction</b>	Standard construction	■	■	■
	b1 = 1125mm, b2 = 1125mm, b4 = 900mm frame	■	■	+
	b1 = 1265mm, b2 = 1265mm, b4 = 900mm frame	+	+	■
	Key switch start	■	■	■
	Operator password start	○	○	○
<b>Performance</b>	2175mm Overhead Guard	■	■	■
	2175mm Drive In Racking Overhead Guard (Narrows at 1450mm)	○	○	○
	2175mm Drive In Racking Overhead Guard (Narrows at 1700mm)	○	○	○
	Polycarbonate (lexan) protection on overhead guard	○	○	○
	Metal grid protection on overhead guard	■	■	■
	Standard display	■	■	■
	TouchPoint™ mini levers mounted on adjustable length armrest	■	■	■
	4 function hydraulics	■	■	■
	Joystick mounted on adjustable length armrest	○	○	○
	Simultaneous hydraulic operation for lift and reach	■	■	■
	Rocker switch directional control	■	■	■
	Full suspension seat	■	■	■
	Cloth seat cover	■	■	■
	SKAI seat cover	○	○	○
	Low backrest seat	■	■	■
	Seat head rest	○	○	○
	Seat heating	○	○	○
	Antistatic seat (cloth version only)	○	○	○
	180° steering	○	○	○
	360° steering	■	■	■
Driver select steering mode 180 / 360° (push button)	○	○	○	
<b>Visibility</b>	Panoramic mirror	○	○	○
	Amber strobe light	○	○	○
	One front LED work light	○	○	○
	2 rear LED work lights	○	○	○
<b>Drive</b>	Travel speed 11 km/h	■	■	■
	343 x 140mm NDIIthane Drive Wheel	■	■	■
	343 x 140mm Polyurethane Conductive Drive Wheel	○	○	○
	343 x 140mm Wet Grip Drive Wheel	○	○	○
	220 x 85 mm NDIIthane load wheels	■	■	+
	220 x 85 mm conductive load wheels	○	○	+
	220 x 85 mm wet grip load wheels	○	○	+
	285 x 100 mm NDIIthane load wheels	+	+	■
285 x 100 mm conductive load wheels	+	+	○	
285 x 100 mm wet grip load wheels	+	+	○	
<b>Lift</b>	3 stage mast	■	■	■
	700 mm FEM 2A carriage	■	■	■
	Various sizes forks	○	○	○
	Without load backrest	■	■	■
1000 mm high load backrest	○	○	○	
<b>Handling</b>	Universal support bar	○	○	○
	Beverage holder and document tray	○	○	○
	A4 clipboard	○	○	○
	Stretch film roll holder	○	○	○
	Side load wheel protection	+	+	○
	24V DC/DC Converter	○	○	○
	24-12V DC Converter	○	○	○
	Audible forward alarm (forks trailing)	○	○	○
	Audible reverse alarm (forks leading)	○	○	○
	Audible forward and reverse alarm	○	○	○
	Hyster Tracker wireless asset management - Access	○	○	○
	Hyster Tracker wireless asset management - Monitoring	○	○	○
Hyster Tracker wireless asset management - Verification	○	○	○	
<b>Batteries</b>	1035 x 263 x 784 mm battery compartment (for 280/310 Ah DIN B Battery)	■	■	+
	1035 x 353 x 784mm battery compartment (for 420/465 Ah DIN B Battery)	○	○	+
	1035 x 443 x 784mm battery compartment (for 560/620 Ah DIN B Battery)	○	○	+
	1223 x 283 x 784mm battery compartment (for 420/465 Ah DIN C Battery)	+	+	■
	1223 x 355 x 784mm battery compartment (for 560/620 Ah DIN C Battery)	+	+	○
	Vertical battery extraction	■	■	■
	Side battery extraction	○	○	○
	Twin battery change station	○	○	○
Extension cable	○	○	○	
<b>Appearance</b>	Hyster yellow paint base truck	■	■	■
	Special paint base truck	○	○	○
<b>Supplemental</b>	Literature package	■	■	■
	CE certification	■	■	■
	Warranty: 24 Months / 4,000 Hours Parts manufacturer's warranty	■	■	■
	Warranty: 36 Months / 6,000 Hours Parts manufacturer's warranty	○	○	○

■ Standard ○ Optional + Not available

# About Yale®



Yale is a leading global manufacturer and supplier of high-quality counterbalance forklift trucks, warehouse equipment and fleet solutions. 'People, products and productivity' sums up our approach to the materials handling business. With over 140 years' experience, we are proud of our reputation as an innovative, forward-thinking manufacturer.

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