

MPT series

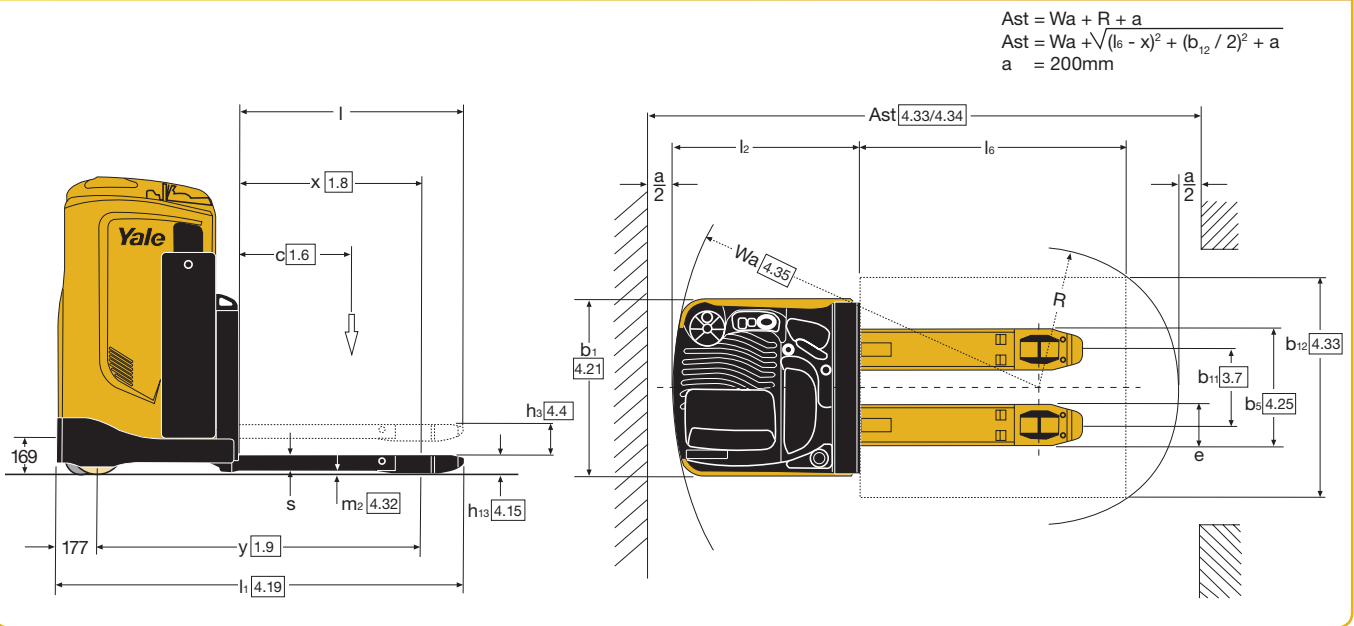
Rider pallet truck

2,000kg / 2,500kg

- Adaptive seating
- Electronic fly-by-wire steering
- Narrow 790mm chassis for Europallet handling
- Speed reduction on cornering
- Combi MOSFET traction and pump control
- SEM drive motor
- Automatic release braking
- Regenerative braking



Truck Dimensions



Controls

The electronic fly-by-wire steering requires minimum effort and allows rapid manoeuvring. A spinner knob is standard.

The large dimensioned, low effort butterfly button controls direction of travel and speed as well as the opening and closing of the electromagnetic brake. Horn, lift and lower buttons are conveniently located beneath the handgrip for finger tip operation.

Seat

A contoured polyurethane fully vertically adjustable cushion seat permits seated, leaning and standing operation/support to relieve fatigue over extended travel runs.

Chassis

The pressed steel welded chassis provides fully enclosed protection for the drive train and battery. The powerhead section with independent lifting mechanism provides a particularly rigid and robust structure.

The compact chassis width of 795mm facilitates the handling of Europallet in loading/unloading applications and block storage. The low step height of 285mm facilitates easy on/off.

Forks

Adjustable pull rods provide smooth even lifting and lowering. The 120mm lift provides high ramp clearance. Load wheels and fork levers are fitted with grease points for extended service life in arduous applications. Tandem load wheels are standard. Exit and entry rollers are standard on fork lengths 1000/1150 mm.

Traction and pump control

A new generation MOSFET high

frequency COMBI controller is used to regulate both traction and pump operation. Energy efficient, smooth progressive control is available at all times.

The controller features automatic braking (reverse current braking) and regenerative braking as well as anti-rollback start-up on an incline. Automatic speed reduction when cornering is activated via the controller. The speed reduction can be adjusted for angle and force of braking. Using a plug-in console the controller can be adjusted for forward and reverse travel speeds, reverse current braking, release braking, acceleration and speed reduction when cornering. The controller features an in-built diagnostic system and alarm history as well as thermal protection.

Drive unit

The separately excited (SEM) drive motor delivers fast travel speeds in the laden/unladen condition, high start-up torque and acceleration as well as efficient running. The use of SEM motor technology eliminates forward and reverse contactors. The motor is mounted vertically for easy brush access, improved ventilation and minimum contamination from floor conditions. It is flanged directly on to a helical gear transmission running in an oil bath. The motor is fixed to reduce flexing stress to the power cables. Drive wheel is mounted automobile style to the wheel hub for easy change.

Hydraulics

A heavy duty series wound motor drives the pump. Lift/lower functions are actuated directly by a lever control via the Combi controller.

Brake

The electromagnetic brake is electrically released and spring applied. Reverse current braking is applied by inverting the direction of travel. Releasing the butterfly button induces both reverse current braking (adjustable) and regenerative braking.

The brake is opened and closed by activation of the butterfly button with the foot presence switch depressed. The brake is closed by lifting the foot off the foot presence switch.

Instrumentation

A steering wheel position indicator and a combined hourmeter/battery discharge indicator with lift interrupt are featured on the instrument panel. The indicator also displays alarm conditions should they occur. A quick disconnect traction cut-out button is mounted near the armrest.

Options

A comprehensive range of options including fork lengths and widths, side battery removal table and battery change trolley, is available.

VDI 2198 – General Specifications

Distinguishing mark	1.1	Manufacturer (abbreviation)		Yale	Yale
	1.2	Manufacturer's type designation		MP20T	MP25T
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas		Electric (battery)	Electric (battery)
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker		Stand	Stand
	1.5	Rated capacity/Rated load	Q (t)	2000	2500
	1.6	Load centre distance ⁽¹⁾	c (mm)	600 ⁽²⁾	600 ⁽²⁾
	1.8	Load distance, centre of drive axle to fork ⁽¹⁾	x (mm)	965	965
	1.9	Wheelbase ⁽¹⁾	y (mm)	1628	1628
	Weights	2.1	Service weight ⁽¹⁾	kg	1010
2.2		Axle loading, laden front/rear	kg	1202 / 1808	1314 / 2196
2.3		Axle loading, unladen front/rear	kg	755 / 255	755 / 255
Tyres/chassis	3.1	Tyres: polyurethane, tophane, vulkollan, front/rear		Vulkollan / Vulkollan	Vulkollan / Vulkollan
	3.2	Tyre size, front	ø (mm x mm)	254 x 90	254 x 90
	3.3	Tyre size, rear	ø (mm x mm)	85 x 90	85 x 90
	3.4	Additional wheels (dimensions)	ø (mm x mm)	150 x 60	150 x 60
	3.5	Wheels, number front/rear (x = driven wheels)		1x + 1 / 4	1x + 1 / 4
	3.6	Tread, front	b ₁₀ (mm)	492	492
	3.7	Tread, rear ⁽¹⁾	b ₁₁ (mm)	346	346
Dimensions	4.4	Lift	h ₃ (mm)	120	120
	4.8	Height of seat / platform	h ₇ (mm)	927 / 293	927 / 293
	4.15	Height, lowered	h ₁₃ (mm)	85	85
	4.19	Overall length ⁽¹⁾	l ₁ (mm)	1996	1996
	4.20	Length to face of forks ⁽¹⁾	l ₂ (mm)	840	840
	4.21	Overall width	b ₁ /b ₂ (mm)	798	798
	4.22	Fork dimensions DIN ISO 2331 ⁽¹⁾	s/e/l (mm)	60 / 184 / 1156	60 / 184 / 1156
	4.25	Distance over fork-arms ⁽¹⁾	b ₅ (mm)	530	530
	4.32	Ground clearance, centre of wheelbase	m ₂ (mm)	25	25
	4.33	Load dimension b ₁₂ x l ₆ lengthwise	b ₁₂ x l ₆ (mm)	800 x 1200	800 x 1200
	4.34	Aisle width predetermined load dimensions	A _{st} (mm)	2465	2465
4.34.1	Aisle width for pallets 1000mm x 1200mm crossways ^{(1) (5)}	A _{st} (mm)	2554	2554	
4.34.2	Aisle width for pallets 800mm x 1200mm lengthwise ^{(1) (5)}	A _{st} (mm)	2465	2465	
4.35	Turning radius ⁽¹⁾	W _a (mm)	1801	1801	
Performance data	5.1	Travel speed, laden/unladen	km/h	9.5 / 12.5	9.5 / 12.5
	5.1.1	Travel speed, laden/unladen, backwards	km/h	9.5 / 9.5	9.5 / 9.5
	5.2	Lift speed, laden/unladen	m/s	0.027 / 0.037	0.020 / 0.037
	5.3	Lowering speed, laden/unladen	m/s	0.064 / 0.030	0.064 / 0.030
	5.8	Max. gradeability, laden/unladen	%	10.0 / 24.5	8.3 / 24.5
	5.9	Acceleration time, laden/unladen (forks trailing)	s	6.6 / 4.8	7.1 / 4.8
	5.10	Service brake		Electro Magnetic	Electro Magnetic
	6.1	Drive motor S2 60 minute rating	kW	2.6	2.6
	6.2	Lift motor, S3 15% rating	kW	1.2	1.2
	6.3	Battery according to DIN 43531/35/36 A,B,C, no		no	no
6.4	Battery voltage/nominal capacity K5	(V)/(Ah)	24 / 465	24 / 465	
6.5	Battery weight ⁽³⁾	kg	366	366	
6.6	Energy consumption according to VDI cycle ⁽⁴⁾	kWh/h at no. of cycles	0.4	0.4	
8.1	Type of drive unit		AC Controller	AC Controller	
10.7	Sound pressure level at the driver's seat	dB (A)	82.5	82.5	

⁽¹⁾ See Forks table

⁽²⁾ Applies to one pallet = 1200mm

⁽³⁾ These values may vary of +/- 5%.

⁽⁴⁾ Values obtained with 40 cycles

⁽⁵⁾ Stacking aisle width (lines 4.34.1 & 4.34.2) are based on the VDI standard calculation as shown on illustration.

The British Industrial Truck Association recommends the addition of 100mm to the total clearance (dimension a) for extra operating margin at the rear of the truck.

Fork dimensions

b₅ = 480 - 530 - 560 - 670 mm, b₁₁ = 346 mm

	c	l	x ⁽¹⁾	l-x	l ₆	b ₁₂	R	y ⁽¹⁾	l ₂	l ₁	Wa ⁽¹⁾	a	A _{st} ⁽²⁾	Fork weights ⁽³⁾
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
	500	1006	815	191	1200	800	555	1478	840	1846	1654	200	2409	147
	600	1156	965	191	1200	1000	552	1628	840	1996	1801	200	2554	156
	700	1406	965	441	1200	800	464	1628	840	2246	1801	200	2465	165
	800	1606	965	641	1200	800	464	1628	840	2446	1801	200	2465	173
	1000	1956	1405	551	2000	1200	845	2068	840	2796	2236	200	3281	204.5
	1100	2156	1405	751	2400	800	1072	2068	840	2996	2236	200	3508	212.5
	1500	2856	1860	996	3000	1200	1288	2523	840	3696	2688	200	4176	249
UK	1000	1956	1356	600	2000	1200	880	2019	840	2796	2188	200	3268	205.5
	1100	2156	1356	800	2400	800	1118	2019	840	2996	2188	200	3506	213.5
	1200	2356	1650	706	2400	800	850	2313	840	3196	2479	200	3529	227
UK short	1200	2356	1405	951	2400	800	1072	2068	840	3196	2236	200	3387	220.5
UK long	1200	2356	1860	496	2400	800	672	2523	840	3196	2687	200	3383	229

⁽¹⁾ With fork lowered - for forks raised -68mm. ⁽²⁾ Aisle width for pallets lengthwise. ⁽³⁾ All weights are: forks + tie rods.

MPT series

Models: MP20T, MP25T



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Safety. This truck conforms to the current EU requirements. Specification is subject to change without notice.

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Truck shown with optional equipment.

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