



# MS20XD

SPEC SHEET

2,000 kg

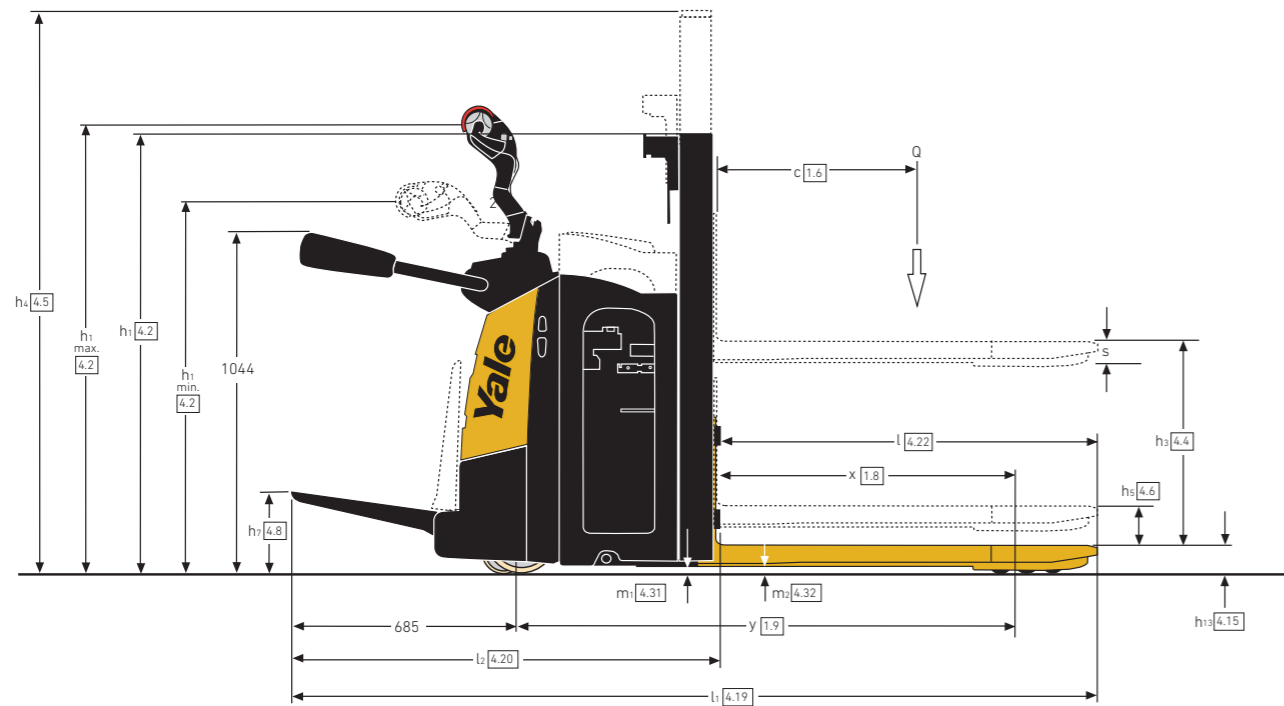
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MS20XD

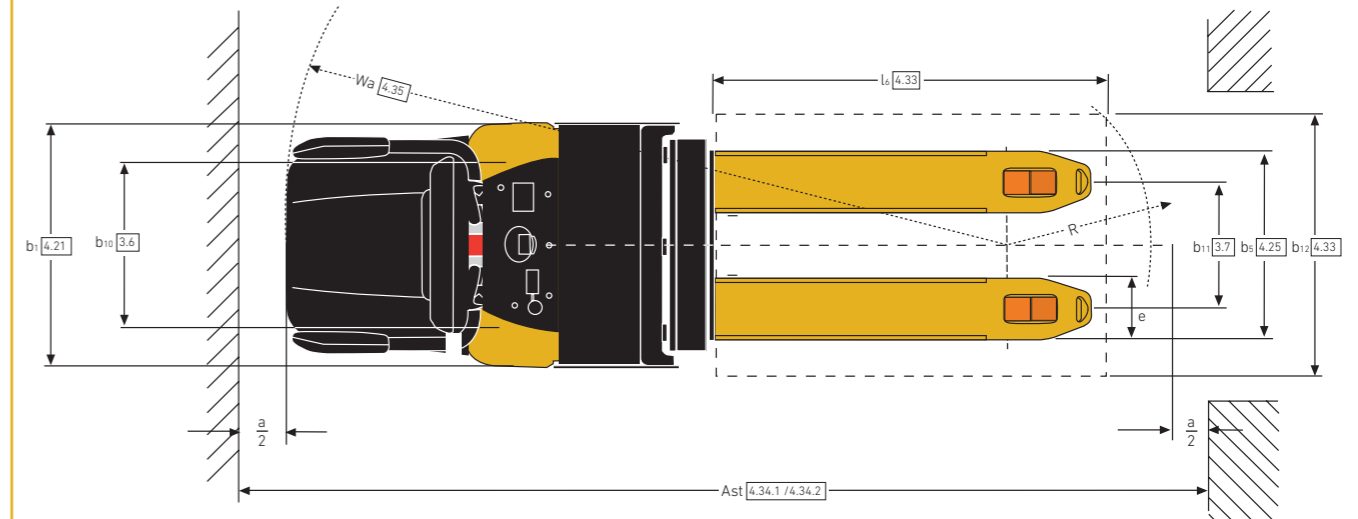
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Double Stacker  
With Platform

TRUCK DIMENSIONS – MS20XD



TRUCK DIMENSIONS – MS20XD



## VDI 2198 – GENERAL SPECIFICATIONS – MS20XD

		Yale				
		MS20XD	MS20XD Platform with side protection	MS20XD Platform with rear protection		
GENERAL	1.1	Manufacturer				
	1.2	Model designation				
	1.3	Drive	Electric (battery)			
	1.4	Operator type	Pedestrian/Standing	Standing		
	1.5	Rated capacity/Rated load	Q (t)	2.0		
	1.6	Load centre distance	c (mm)	600		
	1.8	Load distance, centre of drive axle to fork <sup>(1)</sup>	x (mm)	963		
	1.9	Wheelbase <sup>(1) (2)</sup>	y (mm)	1585	1657	
	WEIGHT	2.1	Service weight <sup>(2) (3)</sup>	1000	1140	1125
2.2		Axle loading laden, front/rear	1080 / 1920	1910 / 1230	1900 / 1225	
2.3		Axle loading unladen, front/rear	760 / 255	270 / 870	260 / 865	
TYRES	3.1	Tyres front/rear	NDIIThane			
	3.2	Tyre size, front	ø (mm) 254 x 90 <sup>(4)</sup>	85 x 70 <sup>(5)</sup>		
	3.3	Tyre size, rear	ø (mm) 85 x 70 <sup>(4)(5)</sup>	254 x 90		
	3.4	Additional wheels (dimensions)	ø (mm)	125 x 50		
	3.5	Wheels, number front/rear (x = driven wheels)		1x +2 / 4 <sup>(4)</sup>	4 / 1 x +2	
	3.6	Tread, front	b <sub>10</sub> (mm)	504 <sup>(4)</sup>	382	
	3.7	Tread, rear	b <sub>11</sub> (mm)	382 <sup>(4)</sup>	504	
DIMENSIONS	4.2	Height, mast lowered <sup>(9)</sup>	h <sub>1</sub> (mm)	1346		
	4.3	Free lift	h <sub>2</sub> (mm)	100		
	4.4	Lift	h <sub>3</sub> (mm)	1574		
	4.5	Height, mast extended	h <sub>4</sub> (mm)	2133		
	4.6	Initial lift	h <sub>5</sub> (mm)	120		
	4.9	Height drawbar in driving position min./max.	h <sub>14</sub> (mm)	1150 / 1383	1198 / 1288	1198 / 1288
	4.15	Height, lowered	h <sub>13</sub> (mm)	90		
	4.19	Overall length (pedestrian) <sup>(2)</sup>	l <sub>1</sub> (mm)	2030	-	
	4.19.1	Overall length (standing) <sup>(2)</sup>	l <sub>1</sub> (mm)	2463	2532	2629
	4.20	Length to face of forks (pedestrian) <sup>(2)</sup>	l <sub>2</sub> (mm)	880	-	
	4.20.1	Length to face of forks (standing) <sup>(2)</sup>	l <sub>2</sub> (mm)	1313	1382	1479
	4.21	Overall width	b <sub>1</sub> / b <sub>2</sub> (mm)	750		
	4.22	Fork dimensions	s/e/l (mm)	55 / 185 / 1150		
	4.25	Forks spread	b <sub>5</sub> (mm)	570		
	4.31	Ground clearance, laden, below mast	m <sub>1</sub> (mm)	19		
	4.32	Ground clearance, center of wheelbase	m <sub>2</sub> (mm)	19		
	4.33	Load dimension b <sub>12</sub> × l <sub>6</sub>	b <sub>12</sub> × l <sub>6</sub> (mm)	1000 x 1200		
	4.34	Aisle width for pallets 1000mm x 1200mm crossways (pedestrian) <sup>(2) (6)</sup>	Ast <sub>2</sub> (mm)	2606	-	
	4.34.1	Aisle width for pallets 1000mm x 1200mm crossways (standing) <sup>(2) (6)</sup>	Ast <sub>1</sub> (mm)	3022	3083	3184
	4.34.2	Aisle width for pallets 800mm x 1200mm lengthwise (pedestrian) <sup>(2) (6)</sup>	Ast <sub>2</sub> (mm)	2499	-	
	4.34.3	Aisle width for pallets 800mm x 1200mm lengthwise (standing) <sup>(2) (6)</sup>	Ast <sub>1</sub> (mm)	2915	2976	3077
4.35	Turning radius (pedestrian) <sup>(1) (2)</sup>	W <sub>a2</sub> (mm)	1864	-		
4.35.1	Turning radius (standing) <sup>(1) (2)</sup>	W <sub>a1</sub> (mm)	2280	2341	2442	
PERFORMANCE	5.1	Travel speed, laden/unladen (pedestrian)	km/h	6 / 6		
	5.1.1	Travel speed, laden/unladen (standing)	km/h	9 / 10		
	5.1.2	Travel speed, laden/unladen, backwards (pedestrian)	km/h	6 / 6		
	5.1.3	Travel speed, laden/unladen, backwards (standing)	km/h	9 / 10		
	5.2	Lift speed, laden/unladen	m/s	0.15 / 0.31		
	5.3	Lowering speed, laden/unladen	m/s	0.40 / 0.34		
	5.7	Gradeability, laden/unladen	%	1.0 / 6.7		
	5.8	Max. gradeability, laden/unladen <sup>(7)</sup>	%	9.1 / 30.2		
	5.10	Service brake		Electromagnetic		
	ELECTRIC	6.1	Drive motor rating S2 60 min	kW	3	
6.2		Lift motor rating at S3 15% <sup>(8)</sup>	kW	2.2		
6.3		Battery according to DIN 43531 / 35 / 36 A.B.C. no		B		
6.4		Battery voltage/nominal capacity K5 <sup>(2)</sup>	V/Ah	24V / 250Ah	24V / 375Ah	
6.5		Battery weight <sup>(2) (3)</sup>	kg	212	288	
6.6		Energy consumption according to DIN EN 16976	kWh/h	1.5		
6.7		Turnover output according to VDI 2198	t/h	45		
6.8		Turnover efficiency according to VDI 2198	t/kWh	30		
8.1	Type of drive unit		AC-Controller			
10.7	Sound pressure level at the driver's seat	dB (A)	66			

(1) With load section lifted: -67mm

(2) See "Battery table"

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

(4) Pedestrian version. For Stand-on version, front/rear are inverted

(5) Available 85 x 110mm tyre with single roller

(6) Forks raised - Ast = Wa + R + a Wa and R with forks raised

(7) If truck climbs ramps frequently (within 1h), consult your salesman

(8) Value referred to S3 5%

(9) With mast h<sub>3</sub>=1574mm and 2020mm,

h<sub>1</sub> varies depending on the option selected:

- Universal clamp +90mm

- MPB +100mm

- MPB - across +100mm

- Bottle holder +100mm

- Bottle holder on MPB +173mm

- PAL on MPB +220mm

- A4 standalone +338mm

- A4 on MPB +390mm

## MAST DIMENSIONS – MS20XD

Lift height h <sub>2</sub> (mm)	Free lift h <sub>2</sub> (mm)	Height, mast lowered h <sub>1</sub> <sup>(1)</sup> (mm)	Height, mast extended h <sub>4</sub> <sup>(2)</sup> (mm)	Weight <sup>(3)</sup> (kg)
1574	100	1346	2133	163
2020	100	1570	2536	177
2980	100	2050	3496	213

(1) With free lift of 100mm and initial lift lowered

(2) With load backrest (h=1000) for carriage h<sub>4</sub> + 562mm (2 stage mast), + 524mm (3 stage mast), + 518mm (2 ton. mast)

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

## FEATURES LIST – MS20XD

	STD	OPT		STD	OPT
Key switch start	●		Multifunctional display	●	
Key switch start with operator password		●	Tiller - fixed height <sup>(1)</sup>	●	
Standard construction	●		Tiller - adjusted height <sup>(1)</sup>		●
Cold Store construction (-30°)		●	Scooter control <sup>(2)</sup>	●	
624 x 284 x 627mm for 315/375 Ah battery	●		A4 clip board		●
624 x 212 x 627mm for 210/250 Ah battery		●	Bottle holder		●
Side extraction (using rollers)	●		Foot sensor <sup>(3)</sup>		●
Side extraction (for li-ion batteries)		●	Multipurpose bar		●
Mast lift height 1574mm (1346mm lowered height)	●		Multipurpose bar across		●
Mast lift height 2020mm (1570mm lowered height)		●	Multipurpose clamp 1PC		●
Mast lift height 2980mm (2050mm lowered height)		●	Multipurpose clamp 2PC		●
Forks 55 x 570 x 1150mm	●		12V DC/DC converter		●
570mm carriage	●		24V DC/DC converter		●
1000mm high load backrest		●	Manual work light		●
Lexan mast guard	●		Automated work light		●
Wire mesh mast guard		●	Blue LED spotlight		●
254 x 90mm NDIIThane drive wheels	●		Platform lights <sup>(2)</sup>		●
254 x 90mm Dynaroll drive wheels		●	Forward alarm (forks trailing)		●
254 x 90mm Redthane drive wheels		●	Reverse alarm (forks leading)		●
254 x 90mm NDIIThane conductive drive wheels		●	Forward / Reverse alarm		●
85 x 70mm tandem NDIIThane load wheels	●		Lead acid battery options		●
85 x 100mm single NDIIThane load wheels		●	Lithium-ion battery options		●
Standard platform with side arms	●		Yale Vision		●
Standard platform without side arms		●	24 months / 2,000 hours standard warranty	●	
Standard platform with rear protection		●	36 months / 3,000 hours extended warranty		●
Standard platform with side protection		●			

(1) For Standard Platform with Side Arms only

(2) For Standard Platform with Rear and Side Protection only

(3) For Standard Platform with Side Protection only

All values are nominal values and they are subject to tolerances.









# About Yale®

Yale Materials Handling Corporation is one of the oldest manufacturers of lift trucks in the world. We've been in the business of lifting since 1875 and we apply that experience to help customers solve materials handling challenges. Our full line of lift trucks range in capacity from 1 to 16 tonne and are powered by internal combustion engines or electric options. Yale also offers robotic solutions, telemetry, fleet management, parts, financing and training. From traditional lift truck equipment to emerging technologies, our goal, every day, is to work with our nationwide dealer network to continually improve and provide the solutions you need, when and how you need them.

## MATERIALS HANDLING FOR:

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## Yale Lift Truck Technologies


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**Safety:** All Yale products sold into EU countries, UK, and Turkey conform to the EU requirements of Machinery Directive 2006/42/EC and contain **CE** marking. Yale trucks sold into other countries may be ordered for production in conformance with Machinery Directive requirements, and when so ordered will contain **CE** marking.

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**Notice:** Care must be exercised when handling elevated loads. Operators must be trained and must read, understand and follow the instructions contained in the Operating Manual. Consult your Yale® Dealer if any of the information shown is critical to your application.

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