

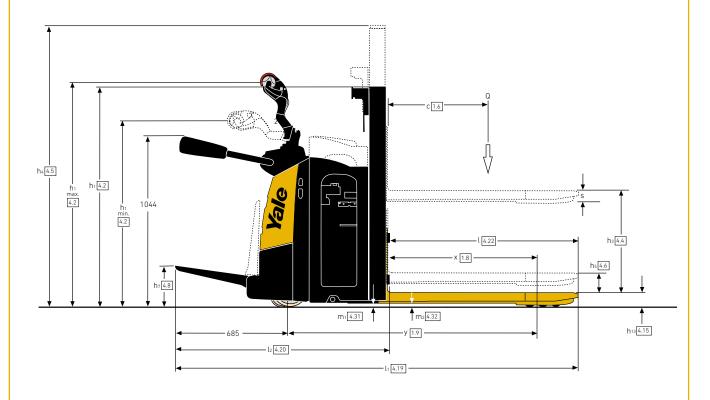


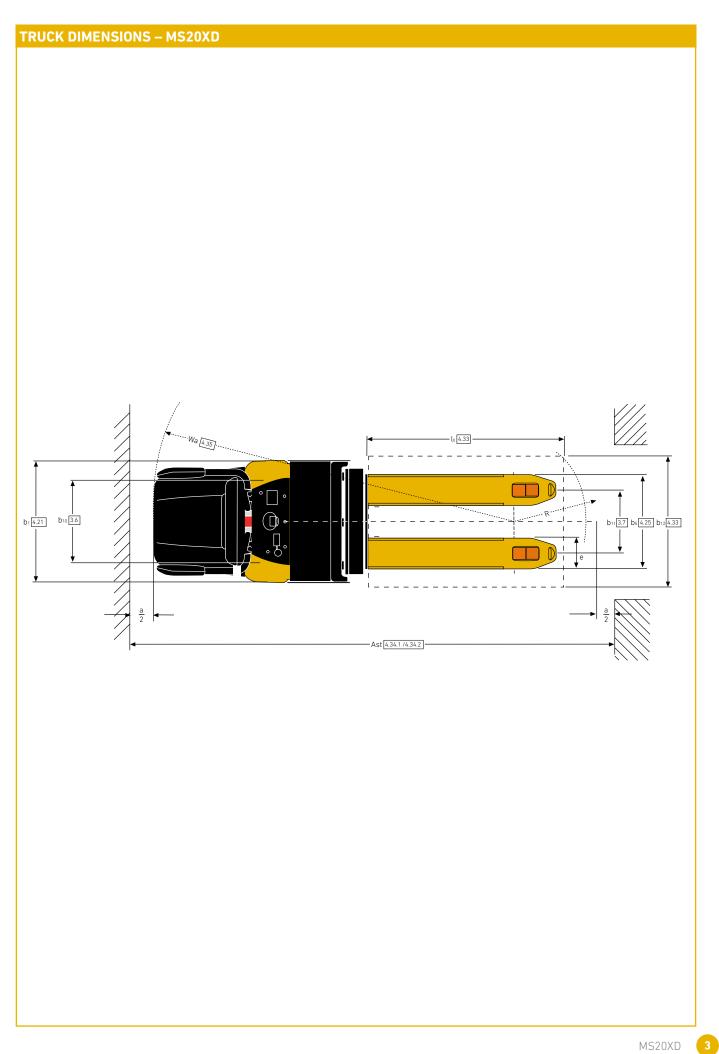
MS20XD

2,000 kg

MS20XD

Double Stacker With Platform





VDI	219	8 - GENERAL SPECIFICATIONS - MS20X	D				
	1.1	Manufacturer			Yale		
	1.2	Model designation		MS20XD	MS20XD Platform with side	MS20XD Platform with rear protection	
_	1.0	Delive			protection	protection	
₽¥	1.3	Drive		Electric (battery)			
GENERAL	1.4	Operator type	0.40	Pedestrian/Standing		nding	
J	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 (1)	x (mm)	963			
	1.9	Wheelbase (1) (2)	y (mm)	1585 1657			
눞	2.1	Service weight (2) (3)	kg	1000	1140	1125	
WEIGHT	2.2	Axle loading laden, front/rear	kg	1080 / 1920	1910 / 1230	1900 / 1225	
	2.3	Axle loading unladen, front/rear	kg	760 / 255	270 / 870	260 / 865	
	3.1	Tyres front/rear			NDIIThane		
	3.2	Tyre size, front	ø (mm)	254 x 90 <sup>(4)</sup>	85 x	70 (5)	
S	3.3	Tyre size, rear	ø (mm)	85 x 70 <sup>(4)(5)</sup> 254 x 90			
TYRES	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	b10 (mm)	504 (4)	3	82	
	3.7	Tread, rear	b <sub>11</sub> (mm)	382 (4)	5	04	
	4.2	Height, mast lowered	h1 (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	h4 (mm)		2133		
	4.6	Initial lift	hs (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) (2)	lı (mm)	2030		_	
	4.19.1	Overall length (standing) (2)	lı (mm)	2463	2532	2629	
	4.20	Length to face of forks (pedestrian) (2)	l <sub>2</sub> (mm)	880	2002	-	
NS	4.20.1	Length to face of forks (standing) (2)	l <sub>2</sub> (mm)	1313	1382	1479	
SIO	4.21	Overall width	b <sub>1</sub> /b <sub>2</sub> (mm)	1313	750	14//	
DIMENSIONS	4.22	Fork dimensions	s/e/l (mm)		55 / 185 / 1150		
	4.22		bs (mm)		570		
	4.25	Forks spread 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 b12 × l6	b <sub>12</sub> × l <sub>6</sub> (mm)	0/0/	1000 x 1200		
	4.34	Aisle width for pallets 1000mm x 1200mm crossways (pedestrian) (2) (6)	Ast <sub>2</sub> (mm)	2606	0000	-	
	4.34.1	Aisle width for pallets 1000mm x 1200mm crossways (standing) (2) (6)	Astı (mm)	3022	3083	3184	
		Aisle width for pallets 800mm x 1200mm lengthwise (pedestrian) (2) (6)	Ast <sub>2</sub> (mm)	2499	007/	-	
		Aisle width for pallets 800mm x 1200mm lengthwise (standing) (2) (6)	Astı (mm)	2915	2976	3077	
	4.35	Turning radius (pedestrian) (1) (2)	Wa <sub>2</sub> (mm)	1864		<u>-</u>	
	4.35.1	Turning radius (standing) (1) (2)	Wa <sub>1</sub> (mm)	2280	2341	2442	
	5.1	Travel speed, laden/unladen (pedestrian)	km/h	6/6		-	
	5.1.1	Travel speed, laden/unladen (standing)	km/h		9 / 10		
Ä	5.1.2	Travel speed, laden/unladen, backwards (pedestrian)	km/h	6/6		-	
PERFORMANCE	5.1.3	Travel speed, laden/unladen, backwards (standing)	km/h		9 / 10		
S S	5.2	Lift speed, laden/unladen	m/s		0.15 / 0.31		
ERF	5.3	Lowering speed, laden/unladen	m/s		0.40 / 0.34		
Δ.	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			
	6.1	Drive motor rating S2 60 min	kW		3		
	6.2	Lift motor rating at S3 15% (8)	kW		2.2		
	6.3	Battery according to DIN 43531 / 35 / 36 A,B,C, no			В		
ELECTRIC	6.4	Battery voltage/nominal capacity K5 (2)	V/Ah	24V / 250Ah	24V /	375Ah	
Ē	6.5	Battery weight (2) (3)	kg	212 288			
ш	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			
	_			AC-Controller			
	8.1	Type of drive unit			AL-Lontroller		

<sup>(1)</sup> With load section lifted: -67mm

<sup>(2)</sup> See "Battery table"

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

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

<sup>(5)</sup> Available 85 x 110mm tyre with single roller

<sup>(6)</sup> Forks raised - Ast = Wa + R + a Wa and R with forks raised

<sup>(7)</sup> If truck climbs ramps frequently (within 1h), consult your salesman

<sup>(8)</sup> Value referred to S3 5%

MAST DIMENSIONS – MS20XD										
Lift height h₃ (mm)	Free lift h² (mm)	Height, mast lowered h1 <sup>(1)</sup> (mm)	Height, mast extended h4 <sup>(2)</sup> (mm)	Weight <sup>(3)</sup> (kg)						
1574	100	1346	2133	163						
2020	100	1570	2536	177						
2980	100	2050	3496	213						

<sup>(1)</sup> With free lift of 100mm and initial lift lowered

## FEATURES LIST – MS20XD

	STD	OPT
Key switch start	•	
Key switch start with operator password		•
Standard construction	•	
Cold Store construction (-30°)		•
624 x 284 x 627mm for 315/375 Ah battery	•	
624 x 212 x 627mm for 210/250 Ah battery		•
Side extraction (using rollers)	•	
Side extraction (for li-ion batteries)		•
Mast lift height 1574mm (1346mm lowered height)	•	
Mast lift height 2020mm (1570mm lowered height)		•
Mast lift height 2980mm (2050mm lowered height)		•
Forks 55 x 570 x 1150mm	•	
570mm carriage	•	
1000mm high load backrest		•
Lexan mast guard	•	
Wire mesh mast guard		•
254 x 90mm NDIIthane drive wheels	•	
254 x 90mm Dynaroll drive wheels		•
254 x 90mm Redthane drive wheels		•
254 x 90mm NDIIthane conductive drive wheels		•
85 x 70mm tandem NDIIthane load wheels	•	
85 x 100mm single NDIIthane load wheels		•
Standard platform with side arms	•	
Standard platform without side arms		•
Standard platform with rear protection		•
Standard platform with side protection		•

	STD	OPT
Multifunctional display	•	
Tiller - fixed height <sup>(1)</sup>	•	
Tiller - adjusted height <sup>(1)</sup>		•
Scooter control (2)	•	
A4 clip board		•
Bottle holder		•
Foot sensor <sup>(3)</sup>		•
Multipurpose bar		•
Multipurpose bar across		•
Multipurpose clamp 1PC		•
Multipurpose clamp 2PC		•
12V DC/DC converter		•
24V DC/DC converter		•
Manual work light		•
Automated work light		•
Blue LED spotlight		•
Platform lights (2)		•
Forward alarm (forks trailing)		•
Reverse alarm (forks leading)		•
Forward / Reverse alarm		•
Lead acid battery options		•
Lithium-ion battery options		•
Yale Vision		•
24 months / 2,000 hours standard warranty	•	
36 months / 3,000 hours extended warranty		•

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

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

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

<sup>(1)</sup> For Standard Platform with Side Arms only

<sup>(2)</sup> For Standard Platform with Rear and Side Protection only

<sup>(3)</sup> For Standard Platform with Side Protection only







## 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.

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## Yale Lift Truck Technologies

Centennial House Frimley Business Park Frimley Surrey GU16 7SG United Kingdom

www.yale.com





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

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