Technical sheet:

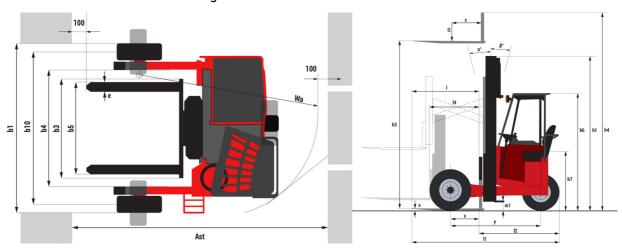
## **TMM 20 4W ST5**





1.2 Model Name         TMM 20 4W STS           1.2.1 Reach out equipment         Pantograph           1.3 Power source         Diesel           1.4 Operator type         Scated           1.5 Max. capacity         C         5000 mm           1.6 Load center of gravity         C         5000 mm           1.8 Load distance, centre of drive axle to fork         x         500 mm           1.9 Weelbase         Weight         FVD 30           2.1 Service weight         FVD 30         FVD 30           2.2 Weight on front axle (laden) / rear axle (laden)         FVD 30         Standard mast reference of the machine         FVD 30           2.3 Weight on front axle (laden) / rear axle (laden)         31180 kg / 1270 kg         11180 kg / 1270 kg           2.3 Weight on front axle (laden) / rear axle (laden)         T1180 kg / 1270 kg         11180 kg / 1270 kg           3.1 Tires type         Pomensions of front wheels         27X10-12 (2630         2X11-12 (230           3.5 Dimensions of front wheels         27X10-12 (2630         2X11-12 (230           3.5 Number of front wheels / rear wheels         5         27X10-12 (2630           3.5 Priort wheel gauge         b10         2143 mm           4.4 Height of overhead guard (cabin)         h6         2120 mm           4.8 Seat hei	
1.2.1         Reach out equipment         Pantograph           1.3         Power source         Diesel           1.4         Operator type         C         Seated           1.5         Max. capacity         Q         2000 kg           1.6         Load center of gravity         X         500 mm           1.9         Wheelbase         Y         1598 mm           1.9         Wheelbase         Y         1598 mm           2.1         Senice weight         2         2450 kg           2.2         Weight on front axie (laden) / rear axie (laden)         3180 kg / 1270 kg         1180 kg / 1270 kg           2.2         Weight on front axie (liniaden) / rear axie (luniaden)         2         2180 kg         3180 kg / 1270 kg           3.1         Tires type         1180 kg / 1270 kg         1180 kg / 1270 kg         1180 kg / 1270 kg           3.2         Dimensions of front wheels         2         27X10-12 kG         2           3.3         Dimensions of front wheels         2         27X10-12 kG           3.5         Number of front wheels / rear wheels         2         27X10-12 kG           3.5         Dime sheels (front / rear)         2         27X10-12 kG           3.5         Dime sheels (fr	
1.3   Power source   Diesel     1.4   Operator type   Seated     1.5   Max. capacity   Q     1.6   Load center of gravity   C     1.8   Load center of gravity   C     1.8   Load distance, center of drive axle to fork   x     1.9   Wheelbase   Y     1.9   Weight     1.0   Standard mast reference of the machine   FVD 30     2.1   Service weight   C     2.2   Weight on front axle (lunladen) / rear axle (lunden)   Standard most reference of the machine   Standard Markey 1270 kg   Standard most reference of the machine   Standard Markey 1270 kg   Standard Markey	
1.4         Operator type         Seated           1.5         Max. capacity         Q         2000 kg           1.6         Load center of gravity         C         500 mm           1.8         Load distance, centre of drive axle to fork         x         500 mm           1.9         Wheelbase         y         1598 mm           Problem of Mediph           2.1         Service weight         2         FVD 30           2.2         Weight on front axle (laden) / rear axle (laden)         2         3180 kg / 1270 kg           2.2         Weight on front axle (Unladen) / rear axle (Unladen)         3         3180 kg / 1270 kg           3.1         Tires type         Penneumatic         9         27X10-12 k30           3.2         Dimensions of front wheels         2         27X10-12 k30           3.3         Dimensions of rear wheels         2         27X10-12 k30           3.5         Number of front wheel y rear wheels         2         27X10-12 k30           3.5         Dimensions of rear wheels         2         2/1           3.6         Front wheel gauge         b10         2143 mm           4.4         Max. Hifting height         h6         220 mm           4.8	
1.5         Max. capacity         Q         2000 kg           1.6         Load center of gravity         c         500 mm           1.8         Load distance, centre of drive axle to fork         x         500 mm           1.9         Wheelbase         y         1598 mm           Weight         Colspan="2">Colspa	
1.5       Max. capacity       Q       2000 kg         1.6       Load center of gravity       c       500 mm         1.8       Load distance, centre of drive axle to fork       x       500 mm         1.9       Wheelbase       y       1598 mm         Weight       Senice weight       2450 kg       2450 kg         2.1       Senice weight       2450 kg       3180 kg / 1270 kg         2.2       Weight on front axle (Unladen) / rear axle (Unladen)       3180 kg / 1270 kg         3.1       Tires type       7180 kg / 1270 kg         3.2       Dimensions of front wheels       27710-12 (230         3.3       Dimensions of front wheels       27710-12 (230         3.5       Number of front wheels / rear wheels       27710-12 (230         3.5       Diffee wheels (front / rear)       271         3.5.2       Diffee wheels (front / rear)       10       2143 mm         4.4       Max. lifting height       18       4200 mm         4.4       Max. lifting height       18       4200 mm         4.8       Seat height/ Stand height       17       1070 mm         4.9       Overall width       51       238 mm         4.1       Overall width / length	
1.6         Load center of gravity         c         500 mm           1.8         Load distance, centre of drive axle to fork         x         500 mm           1.9         Wheelbase         y         1598 mm           Weight         Senvice weight	
1.8	
Weight   Standard mast reference of the machine   FVD 30     Service weight   2450 kg   2450 kg   3180 kg / 1270 kg     Weight on front axle (laden) / rear axle (laden)   1180 kg / 1270 kg     Weight on front axle (Unladen) / rear axle (Unladen)   1180 kg / 1270 kg     Wheels   1180 kg / 1270 kg     Wheels   22 Dimensions of front wheels   27X10-12 (G30     3.2 Dimensions of front wheels   27X10-12 (G30     3.3 Dimensions of rear wheels   27X10-12 (G30     3.5 Number of front wheels / rear wheels   27X10-12 (G30     3.6 Front wheel gauge   50 Dimensions   27X10-12 (G30     4.4 Max. lifting height   51 Dimensions   51 Distance between wheela guard (cabin)   51 Distance between support arms   51 Distance between wheela guard (cabin)   52 Distance between wheela guard (cabin)   53 Dimensions of rear wheels   52 Distance between wheela guard (cabin)   53 Dimensions of rear wheels   52 Distance between wheela guard (cabin)   53 Dimensions of rear wheels   52 Distance between wheela guard (cabin)   53 Dimensions of rear wheels   52 Distance between wheela guard (cabin)   54 Distance between wheela guard (cabin)   54 Di	
Standard mast reference of the machine	
2.1       Service weight       2450 kg         2.2       Weight on front axle (laden) / rear axle (unladen)       3180 kg / 1270 kg         2.3       Weight on front axle (Unladen) / rear axle (Unladen)       1180 kg / 1270 kg         Wheels         3.1       Tires type       Pheumatic         3.2       Dimensions of front wheels       27X10-12 IG30         3.5       Number of front wheels / rear wheels       2/1         3.5       Number of front wheels / rear wheels       2/1         3.6       Front wheel gauge       b10       2143 mm         Dimensions         4.4       Max. lifting height       h3       4200 mm         4.7       Height of overhead guard (cabin)       h6       2120 mm         4.8       Seat height/stand height       h7       1070 mm         4.19       Overall length       b1       238 mm         4.21       Overall width       b1       2398 mm         4.22       Forks section / width / length       s / e / l       40 mm x 122 mm x 120         4.23       Fork carriage Width       b3       1260 m         4.24       Fork carriage width       b3       1260 m         4.26       Distance between wheel ams/loading su	
Weight on front axle (laden) / rear axle (luladen)   3180 kg / 1270 kg	
Meight on front axle (Unladen) / rear axle (Unladen)	
Wheels         Pneumatic           3.1         Tires type         Pneumatic           3.2         Dimensions of front wheels         27X10-12 IC30           3.3         Dimensions of rear wheels         27X10-12 IC30           3.5         Number of front wheels / rear wheels         2/1           3.5         Drive wheels (front / rear)         2/1           3.6         Front wheel gauge         b10           4.4         Max. lifting height         h3           4.7         Height of overhead guard (cabin)         h6           4.8         Seat height/stand height         h7           4.9         Overall length         h7           4.19         Overall length         h1           4.21         Overall width         b1         2398 mm           4.22         Forks section / width / length         s / e / l         40 mm x 122 mm x 120           4.23         Fork carriage ISO 2328 (class/form) A/B         2A           4.24         Fork carriage width         b3         1260 m           4.26         Distance between support arms         b5         1165 mm           4.26         Distance between wheel arms/loading surfaces         b4         1492 mm           4.28         Maxi	
Tires type	\\
Dimensions of front wheels   27X10-12 IC30   3.3   Dimensions of rear wheels   27X10-12 IC30   27X10-12 IC30   3.5   Number of front wheels / rear wheels   2 / 1   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Front wheel gauge   b10   3.6   Fr	
Dimensions of rear wheels   27X10-12 IC30   3.5   Number of front wheels / rear wheels   2 / 1   2 / 1   2 / 1   3.5   2   Drive wheels (front / rear)   2 / 1   3.6   Front wheel gauge   b10   2143 mm   2 / 1   3.6   Eront wheel gauge   Eront w	
3.5       Number of front wheels / rear wheels       2 / 1         .5.2       Drive wheels (front / rear)       2 / 1         3.6       Front wheel gauge       b10       2143 mm         Dimensions         4.4       Max. lifting height       h3       4200 mm         4.7       Height of overhead guard (cabin)       h6       2120 mm         4.8       Seat height/stand height       h7       1070 mm         1.19       Overall length       b1       2638 mm         1.21       Overall width       b1       2398 mm         1.22       Forks section / width / length       s / e / l       40 mm x 122 mm x 120         1.23       Fork carriage ISO 2328 (class/form) A/B       2A         1.24       Fork carriage width       b3       1260 m         1.26       Distance between support arms       b5       1165 mm         1.26       Distance between wheel arms/loading surfaces       b4       1492 mm         1.28       Maximum outreach       1000 mm         1.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         1.35       Tuming radius       Wa       2463 mm	
1.5.2   Drive wheels (front / rear)   2 / 1       3.6   Front wheel gauge	
Seath eight/stand height   Seath eight/stand height/stand height/stand height/stand height   Seath eight/stand height/stand height/stan	
Dimensions           4.4         Max. lifting height         h3         4200 mm           4.7         Height of overhead guard (cabin)         h6         2120 mm           4.8         Seat height/stand height         h7         1070 mm           4.19         Overall length         l1         2638 mm           4.21         Overall width         b1         2398 mm           4.22         Forks section / width / length         s / e / l         40 mm x 122 mm x 120           4.23         Fork carriage ISO 2328 (class/form) A/B         2A           4.24         Fork carriage width         b3         1260 m           4.26         Distance between support arms         b5         1165 mm           4.26         Distance between wheel arms/loading surfaces         b4         1492 mm           4.28         Maximum outreach         1000 mm           4.34         Aisle width for 800 x 1200 pallet lengthways         Ast         3363 mm           4.35         Tuming radius         Wa         2463 mm	
4.4       Max. lifting height       h3       4200 mm         4.7       Height of overhead guard (cabin)       h6       2120 mm         4.8       Seat height/stand height       h7       1070 mm         4.19       Overall length       l1       2638 mm         4.21       Overall width       b1       2398 mm         4.22       Forks section / width / length       s / e / l       40 mm x 122 mm x 120         4.23       Fork carriage ISO 2328 (class/form) A/B       2A         4.24       Fork carriage width       b3       1260 m         4.26       Distance between support arms       b5       1165 mm         4.26       Distance between wheel arms/loading surfaces       b4       1492 mm         4.28       Maximum outreach       1000 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         4.35       Tuming radius       Wa       2463 mm	
4.7       Height of overhead guard (cabin)       h6       2120 mm         4.8       Seat height/stand height       h7       1070 mm         4.19       Overall length       l1       2638 mm         4.21       Overall width       b1       2398 mm         4.22       Forks section / width / length       s / e / l       40 mm x 122 mm x 120         4.23       Fork carriage ISO 2328 (class/form) A/B       2A         4.24       Fork carriage width       b3       1260 m         4.26       Distance between support arms       b5       1165 mm         4.26       Distance between wheel arms/loading surfaces       b4       1492 mm         4.28       Maximum outreach       1000 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         4.35       Tuming radius       Wa       2463 mm	
4.8       Seat height/stand height       h7       1070 mm         4.19       Overall length       l1       2638 mm         4.21       Overall width       b1       2398 mm         4.22       Forks section / width / length       s / e / l       40 mm x 122 mm x 120         4.23       Fork carriage ISO 2328 (class/form) A/B       2A         4.24       Fork carriage width       b3       1260 m         4.26       Distance between support arms       b5       1165 mm         4.26       Distance between wheel arms/loading surfaces       b4       1492 mm         4.28       Maximum outreach       1000 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         4.35       Tuming radius       Wa       2463 mm	
1.19   Overall length	
1.21   Overall width   Description   Descr	
1.22       Forks section / width / length       \$ / e / I       40 mm x 122 mm x 120         1.23       Fork carriage ISO 2328 (class/form) A/B       2A         1.24       Fork carriage width       b3       1260 m         1.26       Distance between support arms       b5       1165 mm         1.26       Distance between wheel arms/loading surfaces       b4       1492 mm         1.28       Maximum outreach       1000 mm         1.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         1.35       Tuming radius       Wa       2463 mm	
1.23       Fork carriage ISO 2328 (class/form) A/B       2A         1.24       Fork carriage width       b3       1260 m         1.26       Distance between support arms       b5       1165 mm         1.26       Distance between wheel arms/loading surfaces       b4       1492 mm         1.28       Maximum outreach       1000 mm         1.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         1.35       Tuming radius       Wa       2463 mm	
4.24       Fork carriage width       b3       1260 m         4.26       Distance between support arms       b5       1165 mm         4.26       Distance between wheel arms/loading surfaces       b4       1492 mm         4.28       Maximum outreach       1000 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         4.35       Tuming radius       Wa       2463 mm	0 mm
4.26       Distance between support arms       b5       1165 mm         4.26       Distance between wheel arms/loading surfaces       b4       1492 mm         4.28       Maximum outreach       1000 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         4.35       Tuming radius       Wa       2463 mm	
4.26       Distance between wheel arms/loading surfaces       b4       1492 mm         4.28       Maximum outreach       1000 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         4.35       Tuming radius       Wa       2463 mm	
4.28       Maximum outreach       1000 mm         4.34       Aisle width for 800 x 1200 pallet lengthways       Ast       3363 mm         4.35       Tuming radius       Wa       2463 mm	
1.34       A is le width for 800 x 1200 pallet lengthways       Ast       3363 mm         1.35       Tuming radius       Wa       2463 mm	
Tuming radius Wa 2463 mm	
_ <u> </u>	
Performances	
5.1 Travel speed (laden / unladen) 9.40 km/h - 9.50 km	/h
5.2 Lifting speed (laden / unladen) 0.26 m/s / 0.24 m/	s
5.3 Lowering speed (laden / unladen) 0.38 m/s / 0.24 m/	s
5.7 Gradeability (laden / unladen) 47 % / 48 %	
5.9 Acceleration time (laden / unladen) 4.10 s / 2.60 s	
5.10 Service brake Hydraulic brakes by loss of	pressure
Transmission type Hydrostatic	
Engine	
7.1 Engine brand / norm / model Kubota - Stage V / D1105-E-	4B-MNT-2
7.2 I.C. Engine power rating / Power 18.50 kW / 18.50 kl	
7.3 Rated speed 3000 rpm	
7.4 Number of cylinders / Capacity of cylinders 3 - 1123 cm <sup>3</sup>	
Miscellaneous  2.1 Type of drive central	
8.1 Type of drive control Cable	
8.2 Working hydraulic pressure for attachments 190 bar	
8.3 Oil flow rate for attachments 43 l/min 8.4 Sound level at the driver's ear according to DIN 12 053 84 dB	

## TMM 20 4W ST5 - Dimensional drawing



## Characteristics of masts and residual capacities

		Full Visibility Duplex (FVD)	
		h1 - Mast lowered height	mm
		h3 - Mast lifting height	mm
		h4 - Mast extended height	mm
Residual Capacity (Maximum Height & LC = 600 mm)	Simple Reach	Pantograph reach in	kg
		Pantograph reach out with stabilizers	kg
		Pantograph reach out without stabilizers	kg
		Telescopic forks reach in	kg
		Telescopic Forks reach out with stabilizers	kg
		Telescopic Forks reach out without stabilizers	kg
	Double Reach	Pantograph & TF reach in	kg
		Pantograph & TF reach out with stabilizers	kg
		Pantograph & TF reach out without stabilizers	kg

FVD 30	FVD 36	FVD 42
2352	2702	3090
3000	3600	4200
4455	5055	5695
2000	2000	2500
1750	1750	
1100	1050	
2000	2000	
1300	1300	
1150	1100	
2000	2000	
1100	1100	
550	550	





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