

MWSW-1R SERIES

1.4 to 2.0 t

ELECTRIC PEDESTRIAN WIDE STRADDLE STACKER TRUCK

- Motors with SEM technology
- MOSFET controller for drive and lift
- With simplex, duplex and triplex mast



Electric Pedestrian
Wide Straddle Stacker Truck

S P E C S H E E T

KOMATSU

MWSW-Series - Electric Pedestrian Wide Straddle Truck

Technical data as per VDI 2198

		KOMATSU		
Characteristics	1.1	Manufacturer		
	1.2	Model Designation	MWS14W-1R MWS20W-1R	
	1.3	Motive Power Type	Electric Electric	
	1.4	Operator Position	Pedestrian Pedestrian	
	1.5	Rated Capacity	Q (t) 1.4 2.0	
	1.6	Load Centre	c (mm) 600 600	
	1.8	Load Distance (when lifted)	x (mm) 621 ⁽⁶⁾ 606 ⁽⁶⁾	
	1.9	Wheelbase (when lifted)	y (mm) 1291 1291	
	Weight	2.1	Service Weight (without battery)	kg 1108 1157
2.2		Axle Loading with Load (driver / load side)	kg 897 / 1871 866 / 2586	
2.3		Axle Loading without Load (driver / load side)	kg 901 / 467 946 / 506	
Tyres	3.1	Tyre Type (P=pneum; S=solid; C=elast. cushion)	Polyurethane	
	3.2	Tyre Size, driver side (dia. x width)	230 x 120	
	3.3	Tyre Size, load side (dia. x width)	85 x 90	85 x 70
	3.5	Number of Wheels (x=driven), driver/load side	1x-1 / 2	1x-1 / 4
	3.6	Tread, driver side	b10 (mm) 574	
	3.7	Tread, load side	b11 (mm) 980 / 1180 / 1380	
	Basic Measurement	4.2	Mast Height, lowered	h1 (mm) 2377 1977
4.3		Free Lift	h2 (mm) 1810 1470	
4.4		Lift Height	h3 (mm) 5390 4380	
4.5		Mast Raised Height	h4 (mm) 5875 ⁽³⁾ 4887 ⁽³⁾	
4.6		Initial Lift	h5 (mm) /	
4.9		Height of Tiller in Drive Position (min./max.)	h14 (mm) 762 / 1232	
4.15		Height Lowered	h13 (mm) 40 50	
4.19		Overall Length	l1 (mm) 1997 ⁽⁵⁾ 2012 ⁽⁵⁾	
4.20		Length to Front Face of Forks	l2 (mm) 847 ⁽⁵⁾ 862 ⁽⁵⁾	
4.21		Overall Width	b1 (mm) 1107 / 1307 / 1507	
4.22		Fork Dimensions : thickness / width / length	s/e/l (mm) 35 / 100 / 1150 45 / 130 / 1150	
4.25		Width over Forks	b5 (mm) 400 / 720 430 / 750	
4.26		Width between Straddle Arms	b4 (mm) 853 / 1053 / 1253	
4.31		Ground Clearance, Chassis, with Load	m1 (mm) /	
4.32		Ground Clearance at Centre of Wheelbase	m2 (mm) 30	
Performance		5.1	Travel Speed (loaded / unloaded)	km/h 5.5 / 6 5 / 6
	5.2	Lifting Speed (loaded / unloaded)	m/s 0.12 / 0.24 0.10 / 0.17	
	5.3	Lowering Speed (loaded / unloaded)	m/s 0.40 / 0.32 0.40 / 0.36	
	5.7	Gradeability KB 30' (loaded / unloaded)	% 1.2 / 6.3 0.5 / 6.5	
	5.8	Max. Gradeability KB 5' (loaded / unloaded)	% 4.1 / 9.0 2.8 / 9	
	5.10	Brake Type (parking / service)	Electrical	
	E-Motor	6.1	Drive Motor, output S2 60 min. rating	kW 1.0 1.0
		6.2	Hydraulic Motor, output S3 15 % duty factor	kW 2.2 ⁽¹⁾ / 3 3.0
6.3		Battery to DIN 43531/35/36/A,B,C,no	DIN cells	
6.4		Battery Voltage, Nom. Capacity K5 (option)	V/Ah 24 / 240 (315-375) 24 / 315 (375)	
6.5		Battery Weight (min.) +/- 5% (option)	kg 260 (295-302) 295 (302)	
Oth.	8.1	Type of Control, drive/hydraulic	Electronic	
	8.4	Noise Level at Driver's Ear	dB (A) < 70	

(1) For FV mast with max. lift height of h3=3580 mm, inclusive

(2) With tiller always active -45 mm

(3) With protection for bulky loads +490 mm

(4) Max. gradeability, unladen, caused by geometric restrictions of truck

(5) With FV mast -21 mm

(6) With FV mast +21 mm

Technical data :

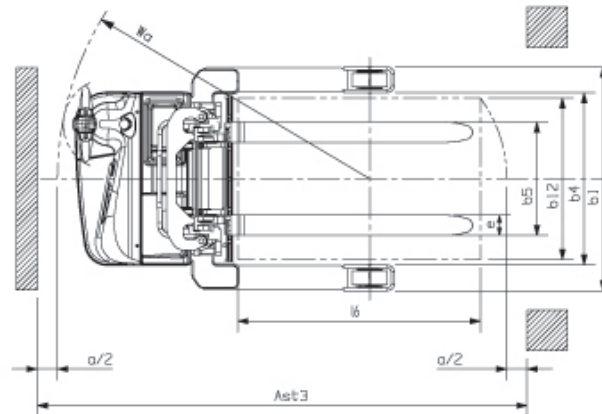
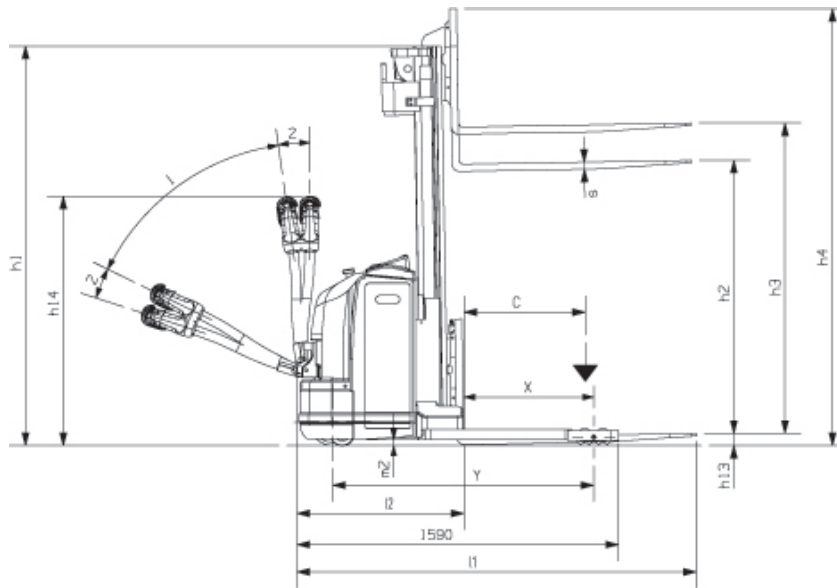


Table with preferred mast types and heights :

Model	Mast type	h3 mm Lift Height	h1 mm OAH	h2 mm Free Lift	h4 mm	Residual Capacity (kg) @LC mm
MWS14W-1R	SX	1510	1977	1510	1995	1400
		FV	2900	1977	140	3385
		3580	2327	140	4065	1300
		3980	2527	140	4465	1200
		4480	2777	140	4965	1000
	FFV	2990	1977	1492	3475	1400
		3600	2327	1810	4085	1300
	TFV	4170	1877	1392	4655	1100
		4470	1977	1492	4955	1000
		4940	2177	1660	5425	900
5390		2377	1810	5875	700	
MWS20W-1R	FV	2900	1977	90	3407	2000
		3580	2327	90	4087	1400
	TFV	4380	1977	1470	4887	1200

KOMATSU - Wide straddle trucks - 1400 and 2000 kg Capacity Series MWS14/20W-1R

Line-up

The KOMATSU pedestrian wide straddle stacker truck, series MWS14/20W-1R, is fitted with straddle legs external to the chassis so that pallets of differing dimensions can be handled. The truck is made for horizontal as well as vertical transportation. Moreover, this truck can be equipped with special attachments on the FEM II fork carriage to allow safe handling of reels, coils, drums, ...

The design concept of one standard chassis, plus the selection of different masts, plus a capacity range of 1400 to 2000 kg, with a choice of 3 internal straddle dimensions: 860, 1060 and 1260 mm, is unique.

Chassis

The 4-point support concept with side located tiller provides high stability combined with good all round visibility for most picking and handling conditions.

The drive unit and castor wheels are integrated within the truck framework maximising operator protection, particularly the feet.

The polyethelene covers have high impact resistance to prevent permanent deformation.

Tiller

The new concept light-weight tiller, for single hand left and/or right operation, is made of high resistance plastic. It enables all operators to assume the most comfortable operating position, independently of their stature. The ergonomic lay-out of the controls: horn and tactile push-buttons for proportional lift/lowering, have IP54 class sealing for high reliability.

On release, the tiller returns to the upright position in a steady and controlled manner.

Drive

Easily controllable and smooth drive thanks to the MOSFET control technology combined with the separate excitation 1kW drive motor, ensuring equal performance both laden and unladen.

Mast

All round view masts are available as simplex (Sx) (only 1.4 to), duplex freeview (FV), duplex full free (FFV) (only 1.4 to) and triplex full free view masts (TFV) with lifting heights over 5000 mm.

Two types of pumpmotors : 2.2 kW and 3 kW are available depending on mast height and truck capacity.

Braking system

Two individual braking systems are incorporated as standard.

Traction brake : reverse current braking (re-generative) on the traction motor when the accelerator butterfly is released.

Parking brake : automatic electro-magnetic brake with inductive sensors on the tiller at both stop positions.

Battery

DIN battery, 24 V for 240 to 375 Ah. The battery compartment is thoroughly contained within the chassis protecting the battery which provides top removal (as standard) or side removal (as option) for multi-shift operation.

Electronic system

High frequency MOSFET controller for traction and lift electronics. The extensive dashboard instrumentation includes : keyswitch, safety-switch, hourmeter, battery discharge indicator with lift cut off and fault diagnostic display.

Maintenance

KOMATSU service staff can reprogram all the acceleration, braking and speed parameters in order to comply with the customers and safety requirements.

The first service being due at 600 operation hours except for those components stated otherwise. All electrical systems and wirings are produced to IP54 protection grade against waterspray and dust infiltration. The SAAB electrical connectors incorporated in the wirings use IP67 standard for more reliability.

Optional Equipment

- Coldstore version (-30°C)
- Tandem rollers (MWS14W-1R)
- Rubber drive wheel (MWS14W-1R)
- On board charger 50A
- Load backrest (h= 927 mm)
- Mobile angle fork arms
- Active vertical tiller

Distributor :

Form No. MWSW(1R)-S-E-T-11/02
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This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your KOMATSU Forklift distributor for those items you may require. Materials and specifications are subject to change without notice.

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