

# MWS-1R SERIES

1.05 TO 1.2 TON



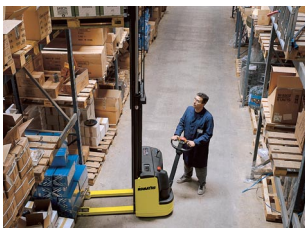
Standard tiller with lever



Optional tiller head



Block Stacking



TFV Masts offer lifts to a maximum of 4.3 metres



Easy picking and pallet loading



Optional adjustable spread forks

The MWS-1R series has been developed to provide the ultimate in terms of compactness, performance, and operator safety. Offering easy pallet handling operations in small to medium sized companies particularly loading, unloading and stacking loads in the warehouse to a height of 4.3 metres.

This has been achieved by careful design of the chassis providing 4 contact points and a tiller which is mounted in a low, off centre position, plus the latest generation MOSFET control logic: The inherent stability of the machine is further enhanced by a comfortable, smooth steering design.

Available in two options firstly the standard version with lift buttons on the tiller and a lever on the scuttle or the more advanced version equipped with proportional lift/lower levers on the tiller providing the operator full control of the hydraulics from one location. The sophisticated tiller has an IP54 rating against dust and water ingress all functions are easy to operate even if wearing gloves.

The truck features two braking systems:

- Regenerative Braking, operated by releasing or reversing the direction of travel
- Passive Electro-magnetic brake operated by completely releasing the tiller to the vertical or switching off the truck.

The traction motor is a separately excited motor (SEM) which including the brushes, is guaranteed for two years

or 5000 hours; the advanced logic controls all motor functions and ensures consistent performance with or without load. The superior design of the machine is further complemented to reduce the effect of impact or accidental bumps to the frame.

Its reliability is guaranteed by the fitment of automotive type SAAB (IP67) connections for the logic and a scheduled maintenance programme commencing after 1000 hours of operation.

The 1.05 and 1.3 tonne MWS-1R models offer a wide selection of optional equipment.

- Cold Store protection to -30° C
- Tandem Load Wheels
- Tiller active in vertical position
- On-Board Battery Charger
- Load Backrest
- Perspex Lift Chain guard
- Adjustable spread forks (see figure)
- Traction Wheel in special materials

Do not hesitate to contact your nearest Komatsu dealer to arrange a visit by one of our expert team who can analyze your requirements and recommend the best solution for you in terms of investment and application.

Our web site [www.komatsuforklift.net](http://www.komatsuforklift.net) provides full information of our dealer network and the complete range of Komatsu Forklift products. You can also register to gain access to the special reserved sections of the web site for inclusion on our mailing lists, which will provide up to the minute information on our products and local promotions.

## KOMATSU

Part Number: PK-SW012-EN  
Form.No MWS10/12(1R)-S-E-P-07/03

This brochure may contain 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.

Printed in Italy

# MWS-1R SERIES

1.05 TO 1.2 TON



**Electric Pedestrian High Lift Stacker Truck**

- Complete range of high visibility Simplex, Duplex and Triplex masts
- Light steering, off set tiller position
- Tiller with IP54 rating, touch-sensitive buttons and built-in controls
- Proportional lift/lower lever built into the tiller available as an option
- Chassis design with 4 contact points to provide maximum stability and traction in all conditions.
- Narrower than a pallet: only 790mm!

# MWS-1R SERIES

## 1.05 TO 1.2 TON

CHARACTERISTICS	1.2 Model Designation		SIMPLEX MAST		FREE VIEW MAST		
			MWS10-1R SX mast	MWS12-1R SX mast	MWS10-1R FV mast	MWS12-1R FV mast	
	1.3 Motive Power Type					Electric	
	1.4 Operator Position					Pedestrian view	
	1.5 Rated Capacity	Q (t)	t	1,05	1,2	1,05	1,2
	1.6 Load Centre	c	mm				600
	1.8 Load Distance	x	mm	776		756	
	1.9 Wheel Base	y	mm				1200
WEIGHTS	2.1 Service Weight without battery		kg	623		743 <sup>(8)</sup>	
	2.2 Axle loading with Load (driver/load side) (1)		kg	718 / 1106 <sup>(11)</sup>	770 / 1244 <sup>(2)</sup>	782 / 1163 <sup>(7)</sup>	832 / 1302 <sup>(8)</sup>
	2.3 Axle loading without Load (driver/load side)		kg	577 / 198	608 / 205 <sup>(2)</sup>	656 / 239 <sup>(7)</sup>	688 / 246 <sup>(8)</sup>
TYRES	3.1 Tyre Type (P=pneum; S=solid; C=elast.cushion)						Polyurethane
	3.2 Tyre Size, driver side		mm				230
	3.3 Tyre Size, load side		mm				85
	3.5 Number of Wheels (x=driven), driver/load side						1x-1
	3.6 Tread, driver side	b <sub>10</sub>	mm				50
	3.7 Tread, load side	b <sub>11</sub>	mm				30
	DIMENSIONS	4.2 Mast Height, lowered	h <sub>1</sub>	mm	2300		2000 / 2350
4.3 Free Lift		h <sub>2</sub>	mm	1785		120	
4.4 Mast Lift Height		h <sub>3</sub>	mm	1800		2900	
4.5 Mast Raised Height		h <sub>4</sub>	mm	2310 <sup>(3)</sup>		3410 / 3500	
4.6 Initial Lift		h <sub>5</sub>	mm				
4.9 Height of Tiller in drive Position (min./max.)		h <sub>14</sub>	mm				762 / 800
4.15 Height Lowered		h <sub>13</sub>	mm				800
4.19 Overall Length		l <sub>1</sub>	mm	1850		1850	
4.20 Length to front Face of Forks		l <sub>2</sub>	mm	700		700	
4.21 Overall Width		b <sub>1</sub>	mm				700
4.22 Fork Dimensions: thickness/width/length			mm				56 / 170
4.24 Carriage Width		b <sub>3</sub>	mm				600
4.25 Width over Forks		b <sub>5</sub>	mm				500
4.31 Ground Clearance, Chassis, with Load		m <sub>1</sub>	mm				
4.32 Ground clearance, chassis, with load		m <sub>2</sub>	mm				200
4.33 Aisle Width with Pallet (1000x1200mm) (16xb12)	Ast <sub>3</sub>	mm	2430 <sup>(4)</sup>		2430		
4.34 Aisle Width with Pallet (800x1200mm) (16xb12)	Ast <sub>3</sub>	mm	2373 <sup>(4)</sup>		2373		
4.35 Outer Turning Radius (min.)	Wa	mm				1500	
PERFORMANCES	5.1 Travel Speed (loaded/unloaded)		km/h	5,6 / 6		5,6 / 6	5,5 / 6
	5.2 Lifting Speed (loaded/unloaded)		m/s	0,13 / 0,18	0,12 / 0,18	0,13 / 0,21 <sup>(6)</sup>	0,17 / 0,3 <sup>(6)</sup>
	5.3 Lowering Speed		m/s	0,28 / 0,22	0,29 / 0,22	0,31 / 0,31 <sup>(6)</sup>	0,32 / 0,31 <sup>(6)</sup>
	5.7 Gradeability (loaded/unloaded)		%	1,7 / 8,0	1,2 / 7,5	1,3 / 6,5	1,0 / 6,1
	5.8 Max.gradeability (loaded/unloaded)		%	6,7 / 9,0 <sup>(5)</sup>	5,8 / 9,0 <sup>(5)</sup>	6,1 / 9,0 <sup>(5)</sup>	5,3 / 9,0 <sup>(5)</sup>
	5.10 Brake Type (parking/service)					Electric Regenerative when releasing	
EL. MOTORS	6.1 Drive Motor, output S2 60 min		kW				
	6.2 Hydraulic Motor, output S3 15%		kW		2,2		
	6.3 Battery to DIN 43531/35/36/A, B, C, no						British Standard
	6.4 Battery Voltage, Nom. capacity K5		V/Ah	24/140 (200-300)	24/200 (300)	24/140 (200-300)	24/200 (300)
	6.5 Battery Weight (min.)		kg	152 (191-250)	191 (250)	152 (191-250)	191 (250)
OTHERS	8.1 Type of Control, drive/hydraulic						MO...
	8.4 Noise Level at Driver's Ear		dB(A)				<

(1) with battery 24 V / 140 Ah  
(2) with battery 24 V / 200 Ah  
(3) with LBR +512mm  
(4) with tiller always active - 45 mm

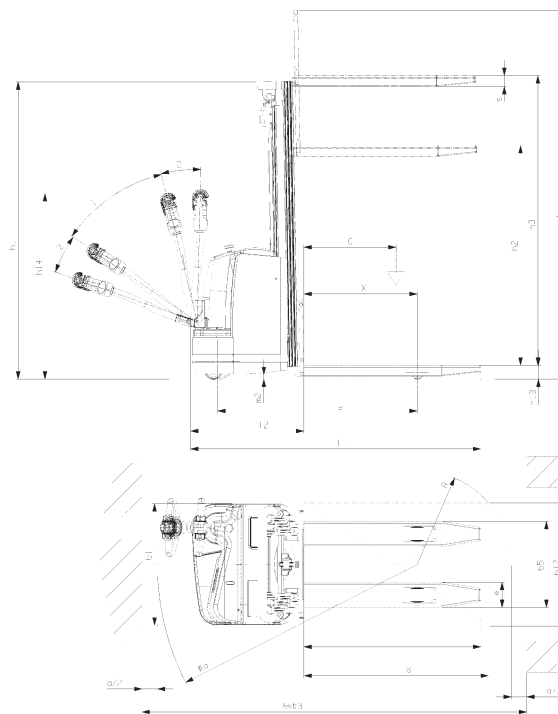
(5) max gradeability permitted by truck geometry  
(6) with mast h3 = 3600mm mast  
(7) with 24V/140Ah battery and h3 = 3600mm mast  
(8) with 24V/200Ah battery and h3 = 3600mm mast

(9) with mast h3 = 4305mm mast  
(10) with 24V/140Ah battery and h3 = 4305mm mast  
(11) with 24V/200Ah battery and h3 = 4305mm mast

FULL FREE VIEW MAST		TRIPLE FREE VIEW MAST	
MWS10-1R	MWS12-1R	MWS10-1R	MWS12-1R
FFV mast	FFV mast	TFV mast	TFV mast
1,05	1,2	1,05	1,2
756		737	
755 <sup>(6)</sup>		809 <sup>(6)</sup>	
790 / 1167 <sup>(7)</sup>	840 / 1306 <sup>(8)</sup>	807 / 1204 <sup>(10)</sup>	854 / 1346 <sup>(11)</sup>
664 / 243 <sup>(7)</sup>	696 / 250 <sup>(8)</sup>	697 / 264 <sup>(10)</sup>	728 / 272 <sup>(11)</sup>

1950 / 2300	1866 / 1935		
1450 / 1800	1367 / 1435		
	4100 / 4305		
4110 <sup>(3)</sup>	4610 / 4815 <sup>(3)</sup>		
	1889		
	738		
5,6 / 6	5,5 / 6	5,6 / 6	5,5 / 6
0,15 / 0,27 <sup>(6)</sup>	0,13 / 0,27 <sup>(6)</sup>	0,18 / 0,28 <sup>(9)</sup>	0,16 / 0,28 <sup>(9)</sup>
0,30 / 0,24 <sup>(6)</sup>	0,31 / 0,24 <sup>(6)</sup>	0,30 / 0,24 <sup>(9)</sup>	0,31 / 0,24 <sup>(9)</sup>
1,3 / 6,5	1,0 / 6,1	1,2 / 5,8	0,9 / 5,4
6,1 / 9,0 <sup>(5)</sup>	5,3 / 9,0 <sup>(5)</sup>	5,8 / 8,9 <sup>(5)</sup>	5,0 / 9,0 <sup>(5)</sup>
3			

24/140 (200-300)	24/200 (300)	24/140 (200-300)	24/200 (300)
152 (191-250)	191 (250)	152 (191-250)	191 (250)



### Mast Specifications

Model	Mast type	Battery Capacity	h <sub>3</sub> mm	h <sub>1</sub> mm	h <sub>4</sub> mm	h <sub>2</sub> mm	Residual Capacity (kg) @ LC (mm) (h <sub>3</sub> +h <sub>13</sub> )				
							400	500	600	700	800
MWS10-1R	SX	≥ 140 Ah	1.800	2.300	2.310	1.785	1.050	1.050	1.050	1.000	900
	FV & FFV	≥ 140 Ah	2.900	2.000	3.460	130	1.050	1.050	1.050	1.000	900
		≥ 140 Ah	3.600	2.350	4.160	130	1.050	1.000	950	850	750
	TFV	≥ 140 Ah	4.100	1.866	4.610	1.367	950	900	850	750	650
≥ 140 Ah		4.305	1.935	4.815	1.435	900	850	800	700	600	
MWS12-1R	SX	≥ 140 Ah	1.800	2.300	2.310	1.785	1.200	1.200	1.200	1.000	900
	FV & FFV	≥ 140 Ah	2.900	2.000	3.460	130	-	-	1.100*	-	-
		≥ 200 Ah	-	-	-	-	1.200	1.200	1.200	1.000	900
	FV & FFV	≥ 140 Ah	-	-	-	-	-	-	950*	-	-
		≥ 200 Ah	3.600	2.350	4.160	130	1.100	1.050	1.000	900	800
	TFV	≥ 300 Ah	-	-	-	-	-	-	1.050*	-	-
		≥ 140 Ah	-	-	-	-	-	-	850*	-	-
	TFV	≥ 200 Ah	4.100	1.866	4.610	1.367	1.000	950	900	800	700
		≥ 300 Ah	-	-	-	-	-	-	950*	-	-
		≥ 140 Ah	-	-	-	-	-	-	800*	-	-
≥ 200 Ah		4.305	1.395	4.815	1.435	950	900	850	750	650	
≥ 300 Ah	-	-	-	-	-	-	-	900*	-	-	

\* please consult Komatsu Forklift

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