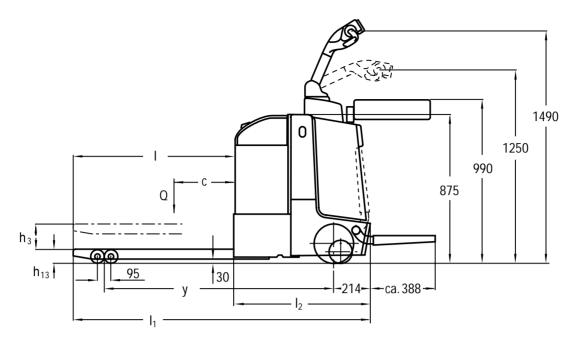


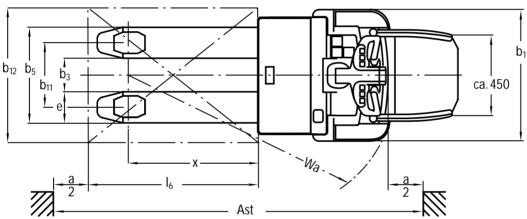
# **Electric Pedestrian Pallet Truck**

with foldable stand-on platform WN 20 S



- Manoeuvrable in short distance operation, fast on long distances
- Powerful impulse control with Speed Control
- · Load-dependent braking system
- Pro-Trac Link System for lateral stability and traction
- Electric steering (optional)
- Fixed stand-on platform available





## Load section dimensions WN 20 S

4.22 fork length	4.19 total length	1.9 y raised <sup>3)</sup>	1.8 loaddistance	<b>b</b> 12		4.34 4.35 Wa <sup>1) 2)</sup>	A <sub>ST</sub> <sup>1) 2)</sup>
	short <sup>2)</sup>	short <sup>2)</sup>	x raised3)		l	raised3)	raised3)
mm	mm	mm	mm	mm	mm	mm	mm
1000	1723	1233	724	1000	800	1463	1939
1150	1873	1383	874	1200	800	1613	2139
1200	1923	1433	924	1200	800	1663	2139
1400	2123	1633	1124	1400	700	1863	2339
1600	2323	1833	1324	1600	1200	2063	2539
1950	2673	1809	1300	2000	800	2039	2939
2150	2873	2009	1500	2100	700	2239	3039
2400	3123	2259	1750	2400	1200	2489	3339

1) stand-on operation +390 mm  $L_2 = 723 \text{ mm}$ overhang drive = 214 mm 2) long version +65 mm

3) lowered +90





## Technical Data in line with VDI 2198 as at: 09/2003

1.2   Manufacturer's identification   Section   Sectio		1.1	Manufacturer (short form)		MIC	1.1
Fig.   1.4   Operation (hand, pedestrian, stand-on, seat, order picker)   Dependent (hand, pedestrian)   Dependent (hand, pedest			, ,			
1.9   Wheelbase   y (mm)   1383/1448*   1.1	╒┃			ual)		
1.5   Load distance   x (mm)   874   1.1	atio					
1.9   Wheelbase   Y (mm)   1383/1448°   1.1	]iji				·	
1.9   Wheelbase   Y (mm)   1383/1448°   1.1	<u>e</u>		, ,			
19   Wheelbase	=					
2   2   Service weight (without battery)   kg   530   2   2   2   2   2   2   2   2   2				, ,		
Section   Sect						
2.3   Axie loading without load front/rear   kg   650/180   2.5						
3.1   Tyres   PU/Vulk.   3.3   Tyre size, back   230 x 77   3.3   Tyre size, back   85 x 85   3.3   3.4   Additional wheels (dimensions)   140 x 54   3.4   3.5   No. of wheels front/back (x=powered)   1x + 2/4   3.3   Track width, back   bin (mm)   340/370/500   3.3   Track width, back   bin (mm)   340/370/500   3.3   Track width, back   bin (mm)   125   4.4   4.9   Tiller height in travel direction min./ max.   hin (mm)   1130/1400   4.4   4.15   Lowered height   hin (mm)   1873/1938°   4.1   4.10   Total length   hin (mm)   1873/1938°   4.1   4.21   Total length   hin (hin hask of forks   bin hask of forks	[울]		•	-		
3.1   Tyres	l je	2.3	Axle loading without load front/rear	kg	650/180	2.3
Section   Sect	>					
Section   Sect		3 1	Tyres		PH/Vulk	3.1
3.7   Track width, back   b11 (mm)   340/370/500   3.1     4.4   Lift height   Lift	<u>s</u> .		-			3.2
3.7   Track width, back   b11 (mm)   340/370/500   3.1     4.4   Lift height   Lift	ass		•			
Section   Sect	၂		-			
Section   Sect	Sis					
3.7   Track width, back   b11 (mm)   340/370/500   3.1     4.4   Lift height   Lift	ļ ģ	3.5	No. of wheels horizback (x=powered)		1X + 2/4	3.5
4.4   Lift helght   1.5   Lift seight   Lift speed with/without load   Lift speed with/without load   Mr/h   S.10   S	>	3.7	Track width, back	b <sub>11</sub> (mm)	340/370/500	3.7
4.9 Tiller height in travel direction min./ max. h <sub>14</sub> (mm) 1130/1400 4.5 4.15 Lowered height h <sub>12</sub> (mm) 85 4. 4.19 Total length h <sub>1</sub> (mm) 1873/1938° 4. 4.20 Total width h <sub>2</sub> (mm) 723/788° 4. 4.21 Length incl. back of forks h <sub>2</sub> (b <sub>2</sub> (mm) 770 4. 4.22 Fork dimensions s/e/I (mm) 55/170/1150 4. 4.23 Floor clearance centre wheelbase m <sub>2</sub> (mm) 30 4. 4.24 Working aisle width with pallet 1000x1200 transverse Ast (mm) 2089/2154° 4. 4.35 Working aisle width with pallet 800x1200 lengthways Ast (mm) 2139/2204° 4. 4.35 Turning radius Wa (mm) 1613/1678° 4. 5.1 Travel speed with/without load m/s 0,04/0,05 5. 5.2 Lift speed with/without load m/s 0,04/0,05 5. 5.3 Lowering speed with/without load m/s 0,065/0,04 5. 5.10 Parking brake 5.10 Drive motor performance S2 60 min kW 2,0 6. 5.10 Parking brake 5.10 Parking brake 6.2 Battery in line with DIN 43531/35/36 A, B, C, no 8 Battery weight kg 288 6.5 5.10 Battery weight kg 288 6.5 5.10 Parking brake 5.10 Type of drive control impulse 8.5				, ,		4.4
4.19 Lowered height his (mm) 85 4.  4.10 Total length li (mm) 1873/1938 <sup>33</sup> 4.  4.20 Total width li (mm) 723/788 <sup>30</sup> 4.  4.21 Length incl. back of forks bi-/b <sub>2</sub> (mm) 770 4.  4.22 Fork dimensions s/e/I (mm) 55/170/1150 4.  4.25 Width over forks bs (mm) 510/540/670 4.  4.32 Floor clearance centre wheelbase m <sub>2</sub> (mm) 30 4.  4.33 Working aisle width with pallet 1000x1200 transverse Ast (mm) 2089/2154 <sup>30</sup> 4.  4.34 Working aisle width with pallet 800x1200 lengthways Ast (mm) 2139/2204 <sup>40</sup> 4.  4.35 Turning radius Wa (mm) 1613/1678 <sup>30</sup> 4.  5.11 Travel speed with/without load km/h 8,5/10 5.  5.2 Lift speed with/without load m/s 0,0470,05 5.  5.3 Lowering speed with/without load m/s 0,065/0,04 5.  5.40 Parking brake tiller 5.  6.1 Drive motor performance S2 60 min kW 2,0 6.  6.2 Lift motor performance at S3 15% kW 2,0 6.  6.3 Battery weilgate, rated capacity K5 V/Ah 24/345 (375) 6.  6.5 Battery weilght kg 288 6.  8.1 Type of drive control impulse impulse				, ,		4.9
Section   Part			This rough in actor anoston main main	()	110071100	,
4.19   Total length   1   (mm)   1873/1938 <sup>20</sup>   4.20   Total width   1   (mm)   723/788 <sup>20</sup>   4.21   Length incl. back of forks   b.//b2 (mm)   770   4.22   Fork dimensions   s/e/I (mm)   55/170/1150   4.22   Fork dimensions   s/e/I (mm)   55/170/1150   4.22   Fork dimensions   s/e/I (mm)   55/170/1150   4.23   Fork dimensions   s/e/I (mm)   55/170/1150   4.24   4.25   Width over forks   b. (mm)   510/540/670   4.25   Width over forks   b. (mm)   30   4.25   4.25   Width over forks   b. (mm)   2089/2154 <sup>20</sup>   4.34   Working asile width with pallet 1000x1200 transverse   Ast (mm)   2089/2154 <sup>20</sup>   4.35   Turning radius   Wa (mm)   2139/2204 <sup>20</sup>   4.35   Turning radius   Wa (mm)   1613/1678 <sup>20</sup>   4.35   Turning radius   Wa (mm)   1613/1678 <sup>20</sup>   4.35   Lift speed with/without load   km/h   8,5/10   5.2   Lift speed with/without load   m/s   0,04/0,05   5.3   Lowering speed with/without load   m/s   0,04/0,05   5.3   Lowering speed with/without load   m/s   0,04/0,05   5.3   Lowering speed with/without load   %6   8/15   5.3   5.4   5.10   Parking brake   tiller   5.5   5.4   5.5		4.15	Lowered height	h <sub>13</sub> (mm)	85	4.15
10   10   10   10   10   10   10   10				, ,		
10   10   10   10   10   10   10   10	્ર	4.19	Total length	I <sub>1</sub> (mm)	1873/1938 <sup>2)</sup>	4.19
A.32   Floor clearance centre wheelbase   m2 (mm)   30   4	Sior			I <sub>2</sub> (mm)	723/7882)	4.20
A.32   Floor clearance centre wheelbase   m₂ (mm)   30   4	Je			b <sub>1</sub> /b <sub>2</sub> (mm)	770	4.21
A.32   Floor clearance centre wheelbase   m₂ (mm)   30   4	盲			s/e/I (mm)	55/170/1150	4.22
A.32   Floor clearance centre wheelbase   m2 (mm)   30   4	sic					
4.33   Working aisle width with pallet 1000x1200 transverse   Ast (mm)   2089/2154³)   4.34   4.34   Working aisle width with pallet 800x1200 lengthways   Ast (mm)   2139/2204°)   4.35   Turning radius   Wa (mm)   1613/1678¹)   4.36   Turning radius   Wa (mm)   1613/1678¹)   4.37   Travel speed with/without load   km/h   8,5/10   5.3   Lift speed with/without load   m/s   0,04/0,05   5.3   Lowering speed with/without load   m/s   0,04/0,05   5.3   Lowering speed with/without load   Max. gradient performance with/without load   %   8/15   5.40   Parking brake   tiller   5.37   Travel performance S2 60 min   kW   2,0   6.3   Battery in line with DIN 43531/35/36 A, B, C, no   B   6.38   Battery weight   kg   288   6.38   Sattery weight   Type of drive control   mpulse   Sattery minus   Sa	Ba	4.25	Width over forks	b₅ (mm)	510/540/670	4.25
4.33   Working aisle width with pallet 1000x1200 transverse   Ast (mm)   2089/2154³)   4.34   4.34   Working aisle width with pallet 800x1200 lengthways   Ast (mm)   2139/2204°)   4.35   Turning radius   Wa (mm)   1613/1678¹)   4.36   Turning radius   Wa (mm)   1613/1678¹)   4.37   Travel speed with/without load   km/h   8,5/10   5.3   Lift speed with/without load   m/s   0,04/0,05   5.3   0,04/0,05   5.3   Lowering speed with/without load   m/s   0,065/0,04   5.30						
4.34   Working aisle width with pallet 800x1200 lengthways   Ast (mm)   2139/2204°   4.35   Turning radius   Wa (mm)   1613/1678°   4.36   Turning radius   Wa (mm)   1613/1678°   4.37   Travel speed with/without load   km/h   8,5/10   5.3   Lift speed with/without load   m/s   0,04/0,05   5.3   Lowering speed with/without load   m/s   0,065/0,04   5.3   Lowering speed with/without load   m/s   0,065/0,04   5.30   Satisfy		4.32	Floor clearance centre wheelbase	m <sub>2</sub> (mm)	30	4.32
4.34   Working aisle width with pallet 800x1200 lengthways   Ast (mm)   2139/2204°   4.35   Turning radius   Wa (mm)   1613/1678°   4.36   Turning radius   Wa (mm)   1613/1678°   4.37   Travel speed with/without load   km/h   8,5/10   5.3   Lift speed with/without load   m/s   0,04/0,05   5.3   Lowering speed with/without load   m/s   0,065/0,04   5.3   Lowering speed with/without load   m/s   0,065/0,04   5.30   Satisfy		4.33	Working aisle width with pallet 1000x1200 transverse	Ast (mm)	2089/21543)	4.33
4.35   Turning radius   Wa (mm)   1613/1678"   4.35   Turning radius   Wa (mm)   Solution   Solutio		4.34	Working aisle width with pallet 800x1200 lengthways	Ast (mm)	2139/22044)	4.34
Solution				Wa (mm)	1613/1678¹¹	4.35
5.10   Parking brake   tiller   5.5		5.1	Travel speed with/without load	km/h	8,5/10	5.1
5.10   Parking brake   tiller   5.5	ata	5.2	Lift speed with/without load	m/s	0,04/0,05	5.2
S.10   Parking brake   tiller   S.10   Parking brake   tiller   S.10   Parking brake   tiller   S.10   Parking brake   tiller   S.10   Parking brake   S.10	e D	5.3	•	m/s	0,065/0,04	5.3
5.10   Parking brake   tiller   5.5	auc					
S.10   Parking brake   tiller   S.10   Parking brake   tiller   S.10   Parking brake   tiller   S.10   Parking brake   tiller   S.10   Parking brake   S.10	or I	5.8	Max. gradient performance with/without load	%	8/15	5.8
5.10   Parking brake   tiller   5.5	Perf					
Second Part			· ·			5.10
6.3 Battery in line with DIN 43531/35/36 A, B, C, no  6.4 Battery voltage, rated capacity K5  6.5 Battery weight  8.1 Type of drive control  Type of drive control  8.3 Battery in line with DIN 43531/35/36 A, B, C, no  8.4 Battery weight  8.5 Battery weight  8.6 Battery weight  8.7 Battery weight  8.8 Battery weight  8.8 Battery weight  8.9 Battery weight  8.1 Battery weight  8.1 Battery weight  8.2 Battery weight  8.3 Battery weight  8.4 Battery weight  8.5 Battery weight  8.6 Battery weight  8.7 Battery weight  8.8 Battery weight  8.9 Battery weight  8.1 Battery weight  8.2 Battery weight  8.3 Battery weight  8.4 Battery weight  8.5 Battery weight  8.6 Battery weight  8.7 Battery weight  8.7 Battery weight  8.8 Battery weight  8.7 Battery weight  8.8 Battery weight  8.8 Battery weight  8.8 Battery weight  8.9 Battery weight  8.9 Battery weight  8.1 Battery weight  8.2 Battery weight  8.3 Battery weight  8.4 Battery weight  8.5 Battery weight  8.6 Battery weight  8.7 Battery weight  8.7 Battery weight  8.8 Batt						6.1
6.5 Battery weight kg 288 6.5  State of the control impulse 8.5  Battery weight kg 288 6.5  State of the control impulse 8.5	ţo			kW		6.2
6.5 Battery weight kg 288 6.5  State of the control impulse 8.5  Battery weight kg 288 6.5  State of the control impulse 8.5	ş					6.3
8.1 Type of drive control impulse 8.	ننا			V/Ah		6.4
				kg		6.5
	tails	8.1	Type of drive control		impulse	8.1
	Det					
	her					
1) load section lowered: +90 mm						

<sup>1)</sup> load section lowered: +90 mm

<sup>2)</sup> with folded down platform: +390 mm, with fixed platform: +460 mm
3) load section lowered: +90 mm; diagonal according to VDI: +337 mm
4) load section lowered: +90 mm; diagonal according to VDI: +190 mm

## **Application**

The WN 20 S is ideally suited for loading / offloading lorries and for long distance operations.

#### Handling

The tiller ensures fatigue-free operation through its optimum grip angle. All operating components are easily accessible without awkward reaching round and are logically arranged. Shape and dimensions of the tiller head provide optimum protection in every situation.

#### Control instruments

Wide-ranging control instruments provide the operator with the assurance of having everything in sight at all times. This also includes the information display "CanDis" (optional) with additional operating hour display and Service code memory as well as the "CanCode function" for activating the truck via PIN or adjusting travel parameters (both optional).

## **Stand-on operation**

The cushioned protective side supports provide travel comfort and safety as does the sprung, foldable stand-on platform (fixed stand-on platform optional) with non-slip coating.

#### Design

The enclosed truck contours and robust frame offer maximum protection for operators, truck and surroundings. The side support rollers always remain within the truck contours. The shape of the fork tips facilitates easy transverse entry over the bottom pallet boards. The low chassis offers unrestricted visibility towards the fork tips in every operating position.



#### Drive

The impulse control Speed Control provides precise travel speed adjustment, roll-back protection on ramps and load-independent top speed. Speed Control ensures that the truck does not push forward during regenerative braking.

#### Chassis

The stability improvement system Pro-Trac Link ensures high stability, optimum traction and braking effect and prevents the support wheels from oscillating or bouncing on uneven floors.

## Braking

The load-dependent braking system ensures precisely measured braking power and thus facilitates safe and soft braking, particularly during stand-on operation.

#### Service

Large, simple to remove panels facilitate easy access to all components.

Your partner:					

