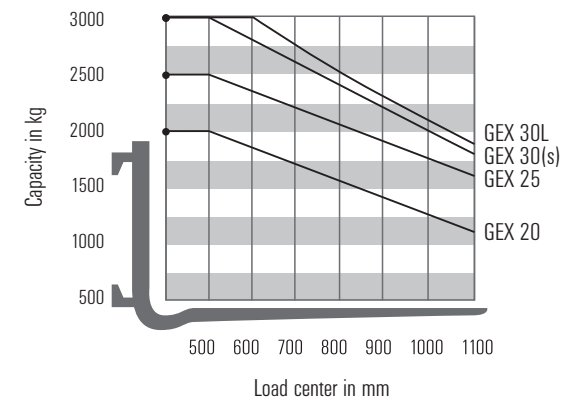


# GENERAL DATA

## Truck Capacities Capacity at different load centres



Note:

The listed capacities are valid only for the standard upright in vertical position with standard fork carriage and standard forks, up to max. lifting height of 3085 mm. The centre of gravity of the load may be displaced by max. 100 mm against the longitudinal centre plane of the truck. Load centre is determined from top and front face of the forks. The values are based on a 1000 mm cube load configuration with the centre of gravity at the true centre of the cube. With upright tilted forward lower capacity values are valid. Attachments, longer forks, exceptional load dimensions and higher lifting heights can reduce the capacity. Please talk to your CLARK dealer if you require further information.

## Upright table GEX 20/25

Mast type	Maximum Fork Height (h3)	Mast Lowered (h1)	Mast Extended (h4)		Free Lift (h2)	
			with load backrest	without load backrest	with load backrest	without load backrest
	mm	mm	mm	mm	mm	mm
Standard	2015	1575	3234	2612	110	110
	2575	1855	3794	3172		
	2875	2005	4094	3472		
	3195	2165	4414	3792		
	3725	2455	4944	4322		
	3860	2530	5079	4457		
	4165	2800	5384	4762		
	4380	3000	5599	4977		
	4620	3230	5839	5217		
	5170	3495	6389	5767		
Triple	3860	1855	5079	4463	636	1232
	4320	2005	5539	4943	786	1382
	4800	2165	6019	5423	946	1542
	5210	2305	6429	5833	1086	1682
	5520	2455	6739	6143	1236	1832
	5740	2530	6959	6363	1311	1907
	6100	2690	7319	6723	1471	2067
	6370	2800	7589	6993	1581	2177
	6830	3000	8049	7453	1781	2377
	7315	3230	8534	7938	2011	2607
Hi-LO	2935	2005	4154	3558	786	1382
	3255	2165	4474	3878	946	1542
	3530	2305	4749	4153	1086	1682
	3760	2455	4979	4383	1236	1832
	3910	2530	5129	4533	1311	1907

Performance may vary +5% and -10% due to motor and system efficiency tolerance. The performance shown represents nominal values which may be obtained under typical operating conditions of a machine. CLARK products and specifications are subject to change without notice.

## Upright table GEX 30L

Mast type	Maximum Fork Height (h3)	Mast Lowered (h1)	Mast Extended (h4)		Free Lift (h2)	
			with load backrest	without load backrest	with load backrest	without load backrest
	mm	mm	mm	mm	mm	mm
Standard	2015	1575	3234	2676	115	115
	2575	1855	3794	3236		
	2875	2005	4094	3536		
	3195	2165	4414	3856		
	3725	2455	4944	4386		
	3860	2530	5079	4521		
	4165	2800	5384	4826		
	4380	3000	5599	5041		
	4620	3230	5839	5281		
	5170	3495	6389	5831		
Triple	3860	1855	5079	4544	636	1172
	4320	2005	5539	5004	786	1322
	4800	2165	6019	5484	946	1482
	5210	2305	6429	5894	1086	1622
	5520	2455	6739	6204	1236	1772
	5740	2530	6959	6424	1311	1847
	6100	2690	7319	6784	1471	2007
	6370	2800	7589	7054	1581	2117
	6830	3000	8049	7514	1781	2317
	7315	3230	8534	7999	2011	2547

## Upright table GEX 30/30s

Mast type	Maximum Fork Height (h3)	Mast Lowered (h1)	Mast Extended (h4)		Free Lift (h2)	
			with load backrest	without load backrest	with load backrest	without load backrest
	mm	mm	mm	mm	mm	mm
Standard	2015	1575	3234	2682	110	110
	2575	1855	3794	3242		
	2875	2005	4094	3542		
	3195	2165	4414	3862		
	3725	2455	4944	4392		
	3860	2530	5079	4527		
	4165	2800	5384	4832		
	4380	3000	5599	5047		
	4620	3230	5839	5287		
	5170	3495	6389	5837		
Triple	3860	1855	5079	4549	636	1167
	4320	2005	5539	5009	786	1317
	4800	2165	6019	5489	946	1477
	5210	2305	6429	5899	1086	1617
	5520	2455	6739	6209	1236	1767
	5740	2530	6959	6429	1311	1842
	6100	2690	7319	6789	1471	2002
	6370	2800	7589	7059	1581	2112
	6830	3000	8049	7519	1781	2312
	7315	3230	8534	8004	2011	2542
Hi-LO	2935	2005	4154	3624	786	1317
	3255	2165	4474	3944	946	1477
	3530	2305	4749	4219	1086	1617
	3760	2455	4979	4449	1236	1767
	3910	2530	5129	4599	1311	1842

# PRODUCT DESCRIPTION



Two powerful AC motors driving the front wheels, a very sturdy design without unnecessary plastic components and an extremely short wheelbase, distinguish the GEX 20-30L series from CLARK. Suitable for most applications thanks to a solid "built to last" construction and well thought-out driver's compartment.

### Operator's Compartment

A large low positioned step, together with a grab handle on the drivers guard column allows easy access to the ergonomically designed operator's compartment. A full width rubber floor covering in the footwell ensures a firm footing in all conditions.

The tilting steering column and an easily adjustable comfort seat, gives maximum legroom enabling optimal adjustment to suit any driver.

The operator's foot pedals are arranged in the automotive fashion to avoid any confusion. The fully directional operating levers move smoothly giving precise control and are located at a perfect height to enable easy handling and a firm grip.

Essential operating data is displayed in real-time on the clear TFT LCD colour display.

Three individually programmable operating modes (Economy-Normal-Power) as well as an additional crawl function allows you to optimally adapt the vehicle to the relevant work situation.

Easily accessible stowage compartments as well as quick access to the hand brake and emergency stop switch complete this impressive operator's compartment.

### Motor, drive and control

Two powerful 7.8 kW AC motors driving the front wheels and 80 Volt three-phase current technology ensure excellent acceleration and high performance. The maintenance free AC motors ensure running costs are kept to a minimum.

The temperatures of the motors and controller are constantly monitored with the power being automatically adjusted to prevent design limits being exceeded.

The ZAPI DUAL AC control is equipped with modern MOSFET and CAN bus technology and is located safely, high in the counterweight, where it is protected, yet easily accessible. The motor and controller temperature monitoring devices serves to protect your investment.

### Brake system

Three independent brake systems (electrical, foot and parking brake) ensure increase efficiency through improved utilisation of the battery capacity and high safety. Fully enclosed oil-immersed multiple-disc, foot and parking brake provide constant brake performance in all conditions.

The regenerative electrical brakes return energy to the battery during each braking action. This process saves energy costs, reduces brake wear and extends the driving time per battery charge.

If the driving direction is changed by operation of the direction lever, the electronics ensure gentle braking and progressive acceleration in the new direction of travel. The fully enclosed service brakes are protected against dust, damp and aggressive particles. Use under difficult environmental conditions is therefore possible without any problems.

The standard ramp start feature enables controlled operation of the truck on gradients and precise handling on loading platforms.

### Steering system

The 101° degree angle of the steer wheels turns the GEX four-wheel forklift almost on the

spot – similar to the three-wheel forklift. Even in this position, smooth start up and control is maintained due to the independent front wheel drive.

Depending on the angle of the steer wheels, the speed and direction of rotation of the front wheels is controlled in such a way that significant wear of the tyres is avoided. When cornering, the traction speed is automatically reduced proportional to the degree of turn.

### Hydraulic system

The independent, AC powered hydraulic pump only pumps the required oil volume for the relevant task, ensuring optimum energy efficiency and longer battery shift life.

The internal gear hydraulic pump is distinguished by especially low pump noise combined with high efficiency. This saves energy and reduces the heat load on the hydraulics.

The steel hydraulic tank ensures good heat dissipation for the hydraulic oil ensuring long service life for the hydraulic components.

The full-flow return line filtration filters the oil to the tank at each reverse flow.

Large particles are filtered directly via a suction filter, thereby preventing them from entering the oil circuit. This ensures a long service life for all hydraulic components.

### Upright

The clear-view uprights are available in Standard, Hilo and Triplex versions. The interlocking profiles provide high strength and improved safety, even at high levels. Enclosed canted rollers minimize deflection and can easily be adjusted without major disassembly.

Tilt cylinders are mounted in spherical bushings, eliminating hydraulic seal strain, thereby increasing the service life of the complete cylinder. An integral tilt-lock valve prevents excessive tilt speeds and unintentional operation of the upright.

The upset forged forks ensure long service life and are hook mounted and pin lockable to ensure accurate for positioning.

A hydraulic cushioning valve reduces upright shocks and allows smooth lifting and lowering at all times, ensuring a long service life and less product damage. The sturdy 6-roller fork carriage features enclosed canted rollers together with adjustable side thrust rollers, preventing carriage jamming when handling offset loads.

### Further standard equipment

Working headlights, acoustic reversing alarm, combination rear lights incorporating brake and reverse light, paintwork in a bright safety colour „CLARK Green“, driver's compartment and upright in matt black, wheel rims in white finish.

### Optional equipment

Pneumatic or non-marking tyres, side battery change, attachments, cabs, mini- or multifunction levers and much more

### Safety

The GEX series is CE certified and corresponds to all European safety standards for counterbalanced forklift trucks.

Talk to your CLARK dealer to find the optimum equipment for you.

**CLARK Europe GmbH**  
 Neckarstraße 37  
 D - 45478 Mülheim an der Ruhr  
 Tel.+49 208 377336 0  
 Fax+49 208 377336 36  
 email: info-europe@clarkmheu.com  
 www.clarkmheu.com

En. 03/2011 Lot 9655



# GEX20/25/30(s)/30L

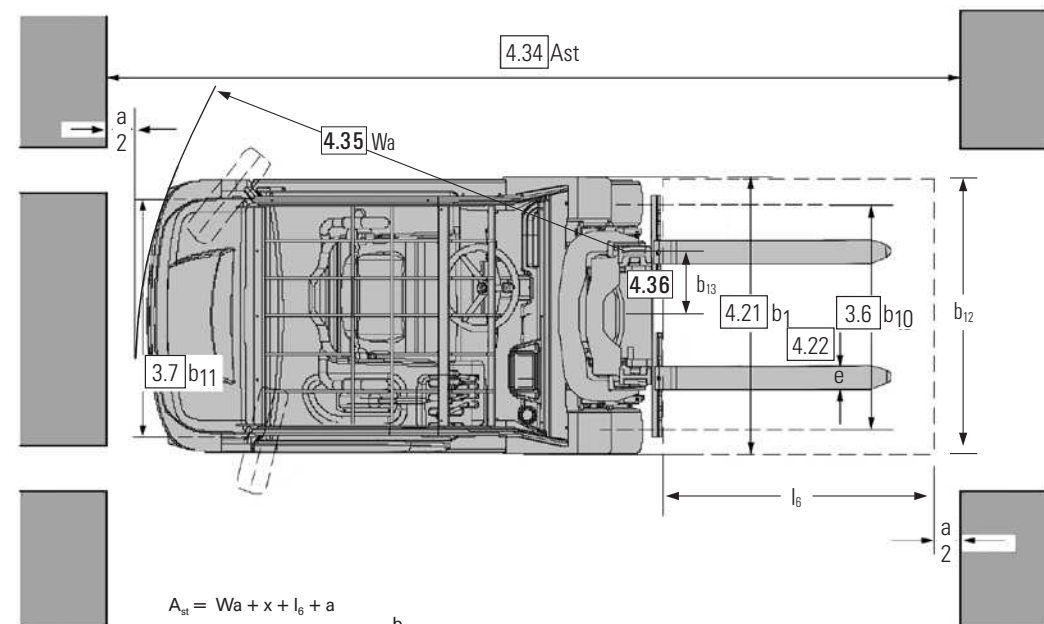
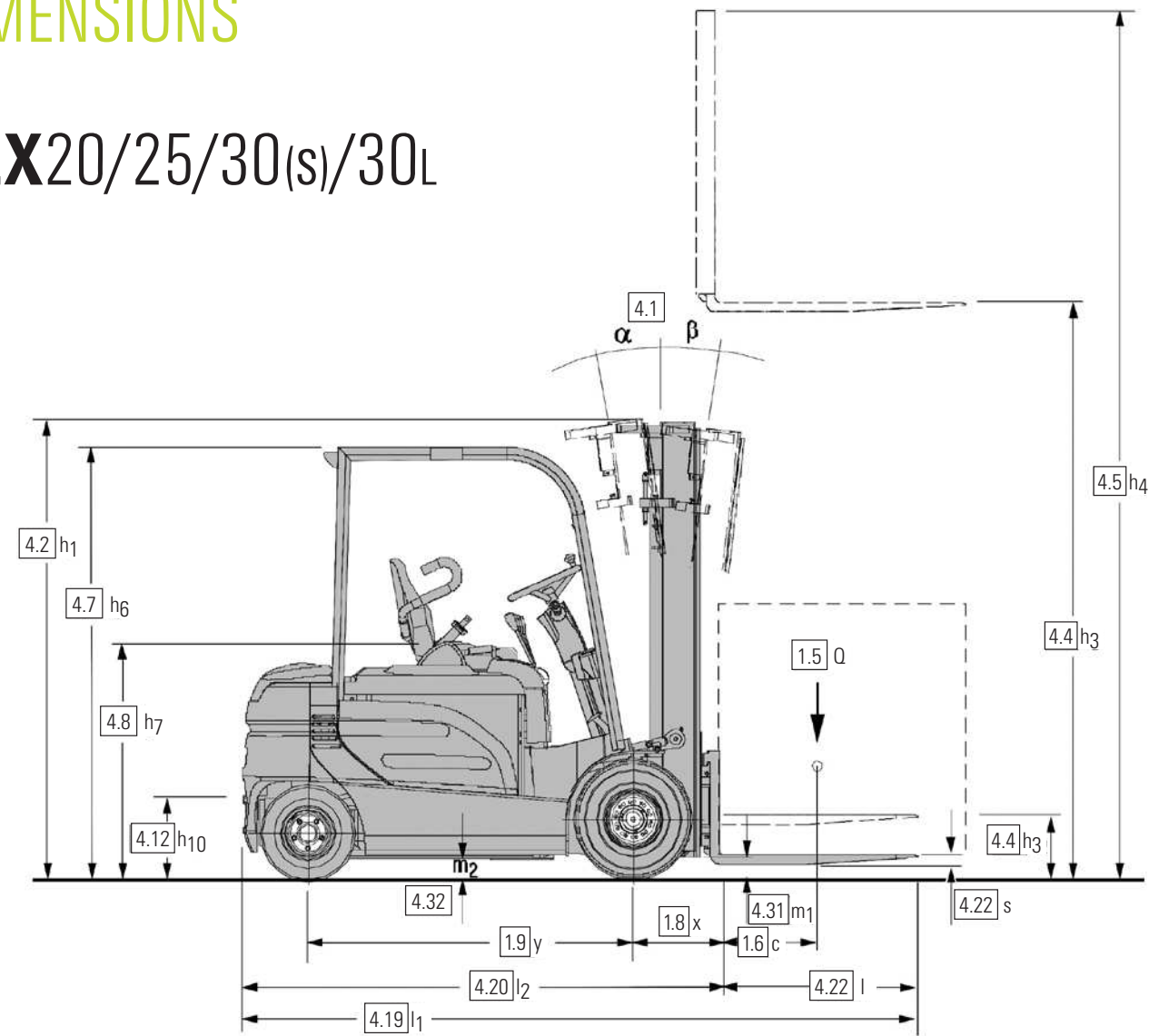
80V Electric Lift Trucks

Superelastic Tires

2.000 kg 2.500 kg 3.000 kg

# DIMENSIONS

## GEX20/25/30(s)/30L



$$A_x = Wa + x + l_6 + a$$

gilt nur bei / applies only if  $\frac{b_{12}}{2} < b_{13}$

$$A_x = Wa + \sqrt{(l_6 + x)^2 + \left(\frac{b_{12}}{2} - b_{13}\right)^2} + a$$

gilt nur bei / applies only if  $\frac{b_{12}}{2} \geq b_{13}$

$$a = 200$$

For corresponding data see Specification Chart.

# SPECIFICATIONS

## Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK		
Specifications	1.2 Manufacturer's designation	GEX20	GEX25		
	1.3 Drive unit	Elec -80V	Elec -80V		
	1.4 Operator type stand on / driver seated	Rider-seated	Rider-seated		
	1.5 Load capacity / rated load	Q (Kg)	2000	2500	
	1.6 Load centre distance	c (mm)	500	500	
	1.8 Load centre distance, centre of drive axle to fork face	x (mm)	415	415	
	1.9 Wheelbase	y (mm)	1610	1610	
	2.1 Service weight	kg	4148	4348	
	2.2 Axle loading, laden front / rear	kg	5276/872	6107/741	
2.3 Axle loading, unladen front / rear	kg	2139/2009	2186/2161		
Tires, Chassis	3.1 Tyre type, SE = superelastic, C = cushion	SE	SE		
	3.2 Tyre size, front, superelastic	23x9-10	23x9-10		
	3.3 Tyre size, rear, superelastic	18x7-8	18x7-8		
	3.5 Wheels, number front/rear (x = drive wheels)	2x/2	2x/2		
	3.6 Tread, front SE (C)	b <sub>10</sub> (mm)	1005	1005	
	3.7 Tread, rear	b <sub>11</sub> (mm)	989	989	
	Dimensions	4.1 Tilt of upright/fork carriage, a / b	deg	8/8	8/8
4.2 Height, upright lowered		h <sub>1</sub> (mm)	2165	2165	2165
4.3 Freelif		h <sub>2</sub> (mm)	110	110	115
4.4 Lift height *1		h <sub>3</sub> (mm)	3195	3195	3195
4.5 Height, upright extended (with load backrest)		h <sub>4</sub> (mm)	4414	4414	4409
4.7 Height overheadguard (Cabin)		h <sub>6</sub> (mm)	2148 (2198)	2148 (2198)	2148 (2198)
4.8 Seat height		h <sub>7</sub> (mm)	1125	1125	1125
4.12 Coupling height		h <sub>10</sub> (mm)	420	420	420
4.19 Overall length		l <sub>1</sub> (mm)	3410	3410	3562
4.20 Length to face of forks		l <sub>2</sub> (mm)	2343	2343	2495
4.21 Width		b <sub>1</sub> , b <sub>2</sub> (mm)	1230	1230	1230
4.22 Fork dimensions		s • e • l (mm)	45x100x1067	45x100x1067	50x122x1067
4.23 Fork carriage DIN 15173, A, B			II A	II A	III A
4.24 Fork carriage width		b <sub>3</sub> (mm)	1040	1040	1040
Performance	4.31 Ground clearance minimum, laden	m <sub>1</sub> (mm)	135	135	
	4.32 Ground clearance centre of wheelbase	m <sub>2</sub> (mm)	114	114	
	4.34 Stacking aisle for pallets (l6 • b12) 1000 x 1200 across	Ast(mm)	3630	3630	3820
	4.34 Stacking aisle for pallets (l6 • b12) 800 x 1200 along	Ast(mm)	3770	3770	3957
	4.35 Turning radius	Wa(mm)	1925	1925	2087
	4.36 Internal turning radius	b <sub>13</sub> (mm)	86	86	61
	5.1 Travel speed laden/unladen	km/h	18/18	18/18	18/18
	5.2 Lift speed laden/unladen	m/s	0.48/0.54	0.41/0.54	0.38/0.50
	5.3 Lowering speed laden/unladen	m/s	0.47/0.43	0.47/0.43	0.47/0.43
	5.6 Max. drawbar pull laden/unladen (S2 5 min) *2	N	20231/10297	20427/10562	0462/11871
5.8 max. gradeability laden/unladen (S2 5 min) *2	%	35.9/25.3	32.2/24.7	28.1/23.8	
5.10 Service brake		Wet disc brake	Wet disc brake	Wet disc brake	
Drive line	6.1 Drive motor rating (S2 60 min)	kW	2x7.8	2x7.8	2x7.8
	6.2 Lift motor rating (S3 15%)	kW	19,1	19,1	19,1
	6.3 Battery acc. to DIN43531/35/36		DIN 43531A	DIN 43531A	DIN 43531A
	6.4 Battery voltage, nominal capacity K <sub>s</sub>	V/Ah	80/620	80/620	80/775
	6.5 Battery weight (min)	kg	1558	1558	1863
Miscellaneous	8.1 Type of control		AC / Inverter	AC / Inverter	
	8.2 Operating pressure for attachments	kg/cm <sup>2</sup>	140	140	
	8.4 Sound level, driver's ear *3	dB (A)	73	73	

\*1 Further lift heights see upright table

\*2 At friction coefficient  $\mu=0.8$  with 1.6 km/h

\*3 acc. to DIN EN 12053

All values shown are for standard lift truck with standard equipment. If the truck is supplied with options, values may change. All values given may vary +5% and -10% due to the motor and system tolerances and represent nominal values obtained under typical operating conditions. Specifications for Non-emission limited truck.

## Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK	
Specifications	1.2 Manufacturer's designation	GEX30s	GEX30	GEX30L	
	1.3 Drive unit	Elec -80V	Elec -80V	Elec -80V	
	1.4 Operator type stand on / driver seated	Rider-seated	Rider-seated	Rider-seated	
	1.5 Load capacity / rated load	Q (Kg)	3000	3000	3000
	1.6 Load centre distance	c (mm)	500	500	600
	1.8 Load centre distance, centre of drive axle to fork face	x (mm)	420	420	435
	1.9 Wheelbase	y (mm)	1610	1750	1750
	2.1 Service weight	kg	4581	4382	4952
	2.2 Axle loading, laden front / rear	kg	6904/677	6805/577	7214/738
2.3 Axle loading, unladen front / rear	kg	2190/2391	2228/2154	2439/2513	
Tires, Chassis	3.1 Tyre type, SE = superelastic, C = cushion	SE	SE	SE	
	3.2 Tyre size, front, superelastic	23x9-10	23x9-10	23x9-10	
	3.3 Tyre size, rear, superelastic	18x7-8	18x7-8	18x7-8	
	3.5 Wheels, number front/rear (x = drive wheels)	2x/2	2x/2	2x/2	
	3.6 Tread, front SE (C)	b <sub>10</sub> (mm)	1005	1005	1005
	3.7 Tread, rear	b <sub>11</sub> (mm)	989	989	989
	Dimensions	4.1 Tilt of upright/fork carriage, a / b	deg	8/8	8/8
4.2 Height, upright lowered		h <sub>1</sub> (mm)	2165	2165	2165
4.3 Freelif		h <sub>2</sub> (mm)	110	110	115
4.4 Lift height *1		h <sub>3</sub> (mm)	3195	3195	3195
4.5 Height, upright extended (with load backrest)		h <sub>4</sub> (mm)	4414	4414	4409
4.7 Height overheadguard (Cabin)		h <sub>6</sub> (mm)	2148 (2198)	2148 (2198)	2148 (2198)
4.8 Seat height		h <sub>7</sub> (mm)	1125	1125	1125
4.12 Coupling height		h <sub>10</sub> (mm)	420	420	420
4.19 Overall length		l <sub>1</sub> (mm)	3415	3547	3562
4.20 Length to face of forks		l <sub>2</sub> (mm)	2348	2480	2495
4.21 Width		b <sub>1</sub> , b <sub>2</sub> (mm)	1230	1230	1230
4.22 Fork dimensions		s • e • l (mm)	45x122x1067	45x122x1067	50x122x1067
4.23 Fork carriage DIN 15173, A, B			III A	III A	III A
4.24 Fork carriage width		b <sub>3</sub> (mm)	1040	1040	1040
Performance	4.31 Ground clearance minimum, laden	m <sub>1</sub> (mm)	135	135	
	4.32 Ground clearance centre of wheelbase	m <sub>2</sub> (mm)	114	114	
	4.34 Stacking aisle for pallets (l6 • b12) 1000 x 1200 across	Ast(mm)	3635	3806	3820
	4.34 Stacking aisle for pallets (l6 • b12) 800 x 1200 along	Ast(mm)	3775	3942	3957
	4.35 Turning radius	Wa(mm)	1925	2087	2087
	4.36 Internal turning radius	b <sub>13</sub> (mm)	86	61	61
	5.1 Travel speed laden/unladen	km/h	18/18	18/18	18/18
	5.2 Lift speed laden/unladen	m/s	0.38/0.50	0.38/0.50	0.38/0.50
	5.3 Lowering speed laden/unladen	m/s	0.47/0.43	0.47/0.43	0.47/0.43
	5.6 Max. drawbar pull laden/unladen (S2 5 min) *2	N	20536/10623	20574/10827	0462/11871
5.8 max. gradeability laden/unladen (S2 5 min) *2	%	28.1/23.8	29.6/25	26.6/24.5	
5.10 Service brake		Wet disc brake	Wet disc brake	Wet disc brake	
Drive line	6.1 Drive motor rating (S2 60 min)	kW	2x7.8	2x7.8	2x7.8
	6.2 Lift motor rating (S3 15%)	kW	19,1	19,1	19,1
	6.3 Battery acc. to DIN43531/35/36		DIN 43531A	DIN 43531A	DIN 43531A
	6.4 Battery voltage, nominal capacity K <sub>s</sub>	V/Ah	80/620	80/775	80/775
	6.5 Battery weight (min)	kg	1558	1863	1863
Miscellaneous	8.1 Type of control		AC / Inverter	AC / Inverter	
	8.2 Operating pressure for attachments	kg/cm <sup>2</sup>	140	140	
	8.4 Sound level, driver's ear *3	dB (A)	73	73	

\*1 Further lift heights see upright table

\*2 At friction coefficient  $\mu=0.8$  with 1.6 km/h

\*3 acc. to DIN EN 12053