



STRONG PARTNERS. TOUGH TRUCKS.

Four-wheel Electric Counterbalanced Lift Trucks E2.2-3.5XN

2 200 – 3 500 kg



E2.2XN, E2.5XN, E3.0XN, E3.2XN, E3.5XN

CHARACTERISTICS	1.1	Manufacturer		
	1.2	Model designation		
	1.3	Power: electric (battery or mains) diesel, petrol, LPG		
	1.4	Operation: manual, pedestrian, stand, seat, orderpicker		
	1.5	Load capacity	Q (kg)	
	1.6	Load centre	c (mm)	
WEIGHTS	2.1	Unladen weight (max. battery)		kg
	2.2	Axle loading with load, front/rear (max. battery)		kg
	2.3	Axle loading without load, front/rear (max. battery)		kg
WHEELS & TYRES	3.1	Tyres: L = pneumatic, V = solid, SE = pneumatic-shaped solid		
	3.2	Tyre size, front		
	3.3	Tyre size, rear		
	3.5	Number of wheels, front/rear (X = driven)		
	3.6	Track width, front (standard/wide tread)	b ₁₀ (mm)	
	3.7	Track width, rear	b ₁₁ (mm)	
DIMENSIONS	4.1	Mast tilt, α = forward/β = back	degrees	
	4.2	Height of mast, lowered	h ₁ (mm)	
	4.3	Free lift ¶	h ₂ (mm)	
	4.4	Lift height ¶	h ₃ (mm)	
	4.5	Height of mast, extended ✚	h ₄ (mm)	
	4.7	Height to top of overhead guard ▴	h ₆ (mm)	
	4.8	Seat height ○	h ₇ (mm)	
	4.12	Towing coupling height	h ₁₀ (mm)	
	4.19	Overall length	l ₁ (mm)	
	4.20	Length to face of forks	l ₂ (mm)	
	4.21	Overall width (standard/wide tread)	b ₁ /b ₂ (mm)	
	4.22	Fork dimensions	s/e/l (mm)	
	4.23	Fork carriage DIN 15173, Class A/B		
	4.24	Fork carriage width ●	b ₃ (mm)	
	4.31	Ground clearance under mast, with load	m ₁ (mm)	
	4.32	Ground clearance, centre of wheelbase, with load	m ₂ (mm)	
	4.33	Aisle width with pallets 1 000 mm x 1 200 mm wide ▴	Ast (mm)	
	4.34	Aisle width with pallets 800 mm x 1 200 mm long ▴	Ast (mm)	
	4.35	Outer turning radius	W _a (mm)	
	4.36	Inner turning radius, standard/wide tread	b ₁₃ (mm)	
PERFORMANCE	5.1	Travel speed with/without load ◆	km/h	
	5.2	Lifting speed with/without load	m/sec	
	5.3	Lowering speed with/without load	m/sec	
	5.5	Drawbar pull with/without load, 60 minute rating	N	
	5.6	Max. drawbar pull with/without load, 5 minute rating	N	
	5.7	Gradeability with/without load, 30 minute rating †	%	
	5.8	Max. gradeability with/without load 5 minute rating †	%	
	5.9	Acceleration time with/without load ◆	S	
	5.10	Service brake		
	MOTOR	6.1	Drive motor output (S2 60 minute rating)	kW
6.2		Lifting motor (S3 15% rating)	kW	
6.3		Battery DIN 43531/35/36 A, B, C, no		
6.4		Battery voltage/capacity at 5 hr rate	V/Ah	
6.5		Battery weight (min/max)	kg	
6.6		Power consumption in accordance with VDI cycle	kWh/h	
OTHER	8.1	Drive control		
	8.2	Working pressure for attachments	bar	
	8.3	Oil flow for attachments, manual hydraulics ▢	l/min	
	8.4	Average noise level at operator's ear ◇	dB(A)	
	8.5	Towing coupling type		

HYSTER				HYSTER				HYSTER				HYSTER					
E2.2XN (700 mm)				E2.2XN (847 mm)				E2.5XN (700 mm)				E2.5XN (847 mm)					
Battery				Battery				Battery				Battery					
Seat				Seat				Seat				Seat					
2 200				2 200				2 500				2 500					
500				500				500				500					
377				377				377				377					
1 230				1 377				1 230				1 377					
4 400				4 570				4 590				4 570					
5 494		1 105		5 540		1 226		5 962		1 123		6 031		1 035			
1 728		2 672		1 941		2 626		1 681		2 903		1 941		2 626			
V				V				V				V					
21 x 8 x 15				21 x 8 x 15				21 x 8 x 15				21 x 8 x 15					
16 x 6 x 10,5				16 x 6 x 10,5				16 x 6 x 10,5				16 x 6 x 10,5					
2X		2		2X		2		2X		2		2X		2			
905		1 039		905		1 039		905		1 039		905		1 039			
940				940				940				940					
5		5		5		5		5		5		5		5			
2 235				2 235				2 235				2 235					
100				100				100				100					
3 450				3 450				3 450				3 450					
4 050				4 050				4 050				4 050					
2 248				2 248				2 248				2 248					
1 217				1 217				1 217				1 217					
280				280				280				280					
3 003				3 027				3 027				3 130					
2 003				2 027				2 027				2 130					
1 108		1 242		1 108		1 242		1 108		1 242		1 108		1 242			
100		40		1 000		100		40		1 000		100		40		1 000	
2A				2A				2A				2A					
977				977				977				977					
85				85				85				85					
92				92				92				92					
3 316				3 462				3 338				3 462					
3 512				3 661				3 534				3 661					
1 735				1 757				1 757				1 884					
501				501				501				561					
19,8		19,7		19,8		19,7		19,9		19,7		19,9		19,7			
0,52		0,72		0,52		0,72		0,52		0,72		0,49		0,72			
0,57		0,51		0,57		0,51		0,57		0,51		0,57		0,51			
13 460		14 271		13 460		14 271		13 315		14 271		13 315		14 271			
22 100		16 785		22 100		16 785		21 914		16 785		21 914		16 785			
34		39		34		39		33		39		33		39			
4,9		4,9		4,9		4,9		4,9		4,9		4,9		4,9			
Hydraulic				Hydraulic				Hydraulic				Hydraulic					
23,6				23,6				23,6				23,6					
24,0				24,0				24,0				24,0					
No				No				No				No					
80		375		80		450		80		375		80		450			
1 050		1 500		1 320		1 770		1 050		1 500		1 320		1 770			
6,31				6,31				6,31				6,31					
AC Electronic				AC Electronic				AC Electronic				AC Electronic					
155				155				155				155					
20-40				20-40				20-40				20-40					
67				67				67				67					
Pin				Pin				Pin				Pin					

Specification data is based on VDI 2198

Equipment and weight:

Weights (line 2.1) are based on the following specifications:
Complete truck with 3 490 mm (E2.2-2.5XN), 3 310 mm (E3.0-3.5XN) 2-stage limited free lift mast, 1 020 mm hook-type carriage with load backrest, 1 000 mm forks, overhead guard and standard cushion drive and steer tyres.

HYSTER		HYSTER		HYSTER		
E3.0XN (847 mm)		E3.2XN (1 015 mm)		E3.5XN (1 015 mm)		1.1
Battery		Battery		Battery		1.2
Seat		Seat		Seat		1.3
3 000		3 200		3 500		1.4
500		500		500		1.5
387		387		387		1.6
1 377		1 545		1 545		1.8
						1.9

CHARACTERISTICS

5 050		5 140		5 350		2.1
6 913	1 135	7 219	1 112	7 671	1 170	2.2
1 978	3 069	2 180	2 951	2 159	3 181	2.3

WEIGHTS

V		V		V		3.1
21 x 8 x 15		21 x 8 x 15		21 x 9 x 15		3.2
16 x 6 x 10,5		16 x 6 x 10,5		16 x 7 x 10,5		3.3
2X	2	2X	2	2X	2	3.5
905	1 039	905	1 039	929	1 013	3.6
940		940		915		3.7

WHEELS & TYRES

5	5	5	5	5	5	4.1
2 235		2 235		2 235		4.2
100		100		100		4.3
3 260		3 260		3 260		4.4
3 955		3 955		3 955		4.5
2 248		2 248		2 248		4.7
1 217		1 217		1 217		4.8
280		280		280		4.12
3 184		3 328		3 352		4.19
2 184		2 328		2 352		4.20
1 108	1 242	1 108	1 242	1 158	1 242	4.21
125	50	1 000	125	50	1 000	4.22
3A		3A		3A		4.23
977		977		977		4.24
85		85		85		4.31
92		92		92		4.32
3 503		3 661		3 681		4.33
3 702		3 861		3 881		4.34
1 915		2 074		2 074		4.35
561		630		630		4.36

DIMENSIONS

19,4	19,7	19,0	19,7	19,1	19,7	5.1
0,42	0,63	0,40	0,63	0,37	0,63	5.2
0,56	0,46	0,57	0,46	0,58	0,46	5.3
12 953	14 150	12 837	14 129	12 643	14 078	5.5
21 485	17 272	21 342	18 165	21 108	18 651	5.6
						5.7
28	36	26	37	25	37	5.8
4,9	4,9	4,9	4,9	4,9	4,9	5.9
Hydraulic		Hydraulic		Hydraulic		5.10

PERFORMANCE

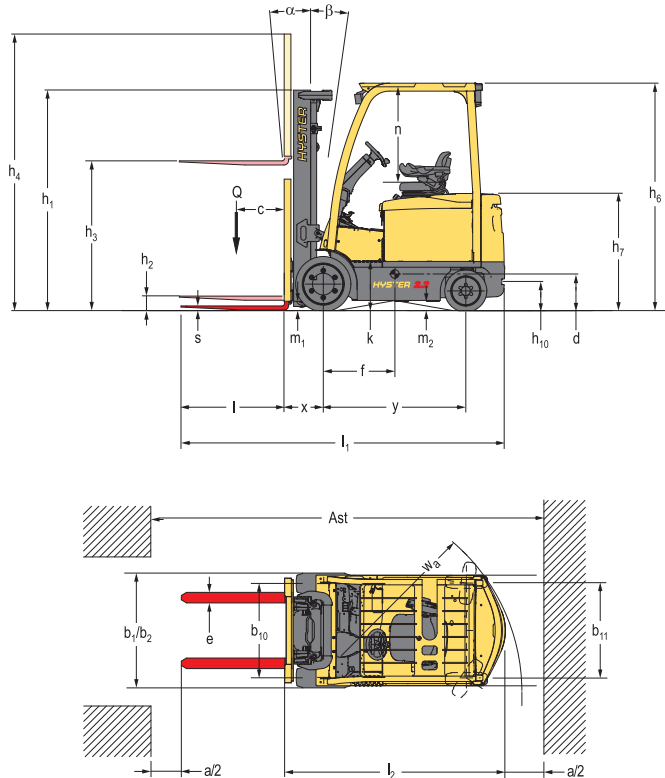
23,6		23,6		23,6		6.1
24,0		24,0		24,0		6.2
No		No		No		6.3
80	450	80	600	80	600	6.4
1 320	1 770	1 550	2 000	1 550	2 000	6.5
6,70		7,89		8,58		6.6

MOTOR

AC Electronic		AC Electronic		AC Electronic		8.1
155		155		155		8.2
20-40		20-40		20-40		8.3
67		67		67		8.4
Pin		Pin		Pin		8.5

OTHER

Truck dimensions



$$A_{st} = W_a + x + l_6 + a \text{ (see lines 4.33 \& 4.34)}$$

a = Minimum operating clearance

(V.D.I. standard = 200 mm BITA recommendation = 300 mm)

l_6 = Load length

NOTE:

Specifications are affected by the condition of the vehicle and how it is equipped, as well as the nature and condition of the operating area. If these specifications are critical, the proposed application should be discussed with your dealer.

- ¶ Bottom of forks
- + Without load backrest
- ▮ h_6 subject to +/- 5 mm tolerance
- Full Suspension (FLM80) specified. Compressed condition, add 40 mm for nominal position
- Add 43 mm with load backrest
- ◆ With 'HIP' high performance setting on
- ▴ Stacking aisle width (lines 4.33 & 4.34) is based on the V.D.I. standard calculation as shown on illustration. The British Industrial Truck Association recommends the addition of 100 mm to the total clearance (dimension a) for extra operating margin at the rear of the truck.
- † Gradeability figures (lines 5.7 & 5.8) are provided for comparison of tractive performance, but are not intended to endorse the operation of the vehicle on the stated inclines. Follow instructions in the operating manual regarding operation on inclines.
- ◇ LPAZ, measured according to the test cycles and based on the weighting values contained in EN12053
- ⌘ Variable

Tables key:

- ★ Add 665 mm with load backrest extension
- ❖ Add 685 mm with load backrest extension
- Deduct 665 mm with load backrest extension
- Deduct 685 mm with load backrest extension
- Add 580 mm with load backrest extension
- * Add 600 mm with load backrest extension
- >> Deduct 580 mm with load backrest extension
- ▲ Deduct 600 mm with load backrest extension
- ▮ Wide tread required. Standard tread possible but with reduced capacity. Contact your Hyster dealer.

Notice

Care must be exercised when handling elevated loads. When the carriage and/or load is elevated, truck stability is reduced. It is important that mast tilt in either direction be kept to a minimum when loads are elevated. Operators must be trained and adhere to the instructions contained in the Operating Manual.

Hyster products are subject to change without notice. Lift trucks illustrated may feature optional equipment.



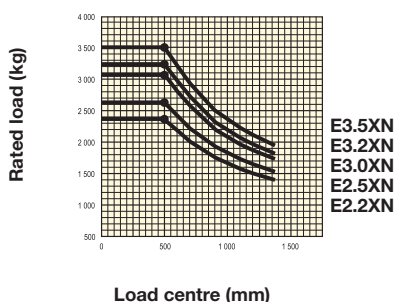
This truck conforms to the current EU requirements.

Model

Dimensions (mm)

	E2.2XN (700)	E2.2XN (847)	E2.5XN (700)	E2.5XN (847)	E3.0XN (847)	E3.2XN (1 015)	E3.5XN (1 015)
d	613	618	615	618	616	618	617
f	728	773	764	774	825	869	905
k	458	458	458	458	458	458	458
n	993	993	993	993	993	993	993

Rated capacities



Load centre

Distance from front of forks to centre of gravity of load.

Rated load

Based on vertical 3-stage full free lift mast up to 4 310 mm for E2.2-2.5XN and 4 120 mm for E3.0-3.5XN and 977 mm Standard Carriage with Load Backrest.

Mast and Capacity Information

Values shown are for standard equipment. When using non-standard equipment these values may change. Please contact your Hyster dealer for information.

Vista Masts E2.2-2.5XN

	Maximum fork height mm h ₃ +s	Back tilt	Overall lowered height mm	Overall extended height mm	Free lift (top of forks) mm h ₂ +s
Vista 2-Stage limited free lift	3 490	5°	2 235	4 050 ★	140
	4 130	5°	2 635	4 690 ★	140
	4 830	5°	2 985	5 390 ★	140
Vista 2-Stage full free lift	3 500	5°	2 235	4 060 ★	1 680 ○
Vista 3-Stage full free lift	5 100	5°	2 235	5 640 ❖	1 695 □
	5 550	5°	2 385	6 090 ❖	1 845 □
	6 000	5°	2 585	6 540 ❖	2 045 □

Vista Masts E3.0-3.5XN

	Maximum fork height mm h ₃ +s	Back tilt	Overall lowered height mm	Overall extended height mm	Free lift (top of forks) mm h ₂ +s
Vista 2-Stage limited free lift	3 310	5°	2 235	3 955 ○	150
	3 710	5°	2 535	4 355 ○	150
	4 210	5°	2 785	4 855 ○	150
Vista 2-Stage full free lift	3 310	5°	2 235	3 955 ○	1 590 >>
Vista 3-Stage full free lift	4 770	5°	2 235	5 395 *	1 610 ▲
	5 220	5°	2 385	5 845 *	1 760 ▲
	5 970	5°	2 735	6 595 *	2 110 ▲

E2.2-3.5XN - Capacity chart in kg @ 500 mm load centre

	Cushion tyres															
	Maximum fork height mm h ₃ +s	Without sideshift				With integral sideshift				Maximum fork height mm h ₃ +s	Without sideshift			With integral sideshift		
		E2,2XN (700)	E2,2XN (847)	E2,5XN (700)	E2,5XN (847)	E2,2XN (700)	E2,2XN (847)	E2,5XN (700)	E2,5XN (847)		E3,0XN (847)	E3,2XN (1 015)	E3,5XN (1 015)	E3,0XN (847)	E3,2XN (1 015)	E3,5XN (1 015)
Vista 2-Stage limited free lift	3 490	2 200	2 200	2 500	2 500	2 160	2 160	2 450	2 450	3 310	3 000	3 200	3 500	2 930	3 120	3 410
	4 130	2 200	2 200	2 500	2 500	2 150	2 150	2 440	2 440	3 710	3 000	3 200	3 500	2 920	3 110	3 400
	4 830	2 120	2 130	2 420	2 420	2 070	2 070	2 350	2 350	4 210	3 000	3 200	3 500	2 910	3 100	3 390
Vista 2-Stage full free lift	3 500	2 200	2 200	2 500	2 500	2 160	2 160	2 450	2 450	3 310	3 000	3 200	3 500	2 930	3 120	3 410
	5 100	2 080	2 080	2 370	2 370	2 020	2 030	2 300	2 300	4 770	2 890	3 090	3 390	2 800	2 990	3 280
Vista 3-Stage full free lift	5 550	2 000	2 010	2 290	2 280	1 940	1 950	2 220	2 210	5 220	2 810	3 000	3 290	2 710	2 900	3 180
	6 000	1 920	1 930	2 200	2 190	1 850	1 860	2 120	2 110	5 970	2 650	2 840	3 120	2 540	2 720	3 000

E2.2-3.5XN - Capacity chart in kg @ 600 mm load centre

	Cushion tyres															
	Maximum fork height mm h ₃ +s	Without sideshift				With integral sideshift				Maximum fork height mm h ₃ +s	Without sideshift			With integral sideshift		
		E2.2XN (700)	E2.2XN (847)	E2.5XN (700)	E2.5XN (847)	E2.2XN (700)	E2.2XN (847)	E2.5XN (700)	E2.5XN (847)		E3.0XN (847)	E3.2XN (1 015)	E3.5XN (1 015)	E3.0XN (847)	E3.2XN (1 015)	E3.5XN (1 015)
Vista 2-Stage limited free lift	3 490	2 030	2 030	2 300	2 300	1 950	1 950	2 210	2 210	3 310	2 760	2 940	3 210	2 640	2 810	3 070
	4 130	2 020	2 020	2 290	2 290	1 940	1 940	2 200	2 200	3 710	2 760	2 940	3 210	2 640	2 810	3 070
	4 830	1 940	1 950	2 210	2 210	1 860	1 870	2 120	2 120	4 210	2 750	2 930	3 200	2 630	2 800	3 060
Vista 2-Stage full free lift	3 500	2 030	2 030	2 300	2 300	1 950	1 950	2 210	2 210	3 310	2 760	2 940	3 210	2 640	2 810	3 070
Vista 3-Stage full free lift	5 100	1 900	1 900	2 160	2 160	1 820	1 830	2 080	2 070	4 770	2 650	2 820	3 090	2 530	2 700	2 960
	5 550	1 820	1 830	2 080	2 080	1 750	1 750	2 000	1 990	5 220	2 560	2 740	3 000	2 450	2 620	2 870
	6 000	1 740	1 750	1 990	1 980	1 670	1 680	1 910	1 900	5 970	2 400	2 570	2 830	2 300	2 460	2 710

Note: To calculate truck capacities with alternative truck specifications to the ones shown in the above tables, please consult your Hyster dealer. The rated capacities shown are for masts in a vertical position on trucks equipped with standard or sideshift carriage and nominal length forks. Masts above the maximum fork heights shown in the mast table are classified as high lift and, depending on the tyre/tread configuration may require reduced capacity, restricted back tilt or wide tread.

Product Features

Dependability

- New robust mast design provides excellent visibility and reliable, high performance lifting.
- Strong chassis construction and reliable, long-lasting components deliver excellent durability and stability, increasing driver confidence and enhancing productivity.
- AC motor technology on traction and hoist, with built in thermal management system, allows the truck to work reliably over long runs and in demanding work cycles, reducing downtime significantly.
- The electrical system features a CANbus communications network and Hall Effect sensors for increased reliability.
- IP54 enclosed traction motors and IP65 protection of controls prevents ingress of water and dust particles, reducing the probability of truck downtime.

Productivity

- AC traction motor delivers smooth acceleration, fast travel and rapid direction changes with excellent torque performance. This is combined with regenerative braking to deliver efficient load handling in the toughest of applications.
- Compact dimensions deliver tight turning circles and class leading manoeuvrability when working in aisles or congested loading/unloading bays.
- Powerful 80 V battery, offering extended battery shift life and optional side battery removal, delivers superb traction and hoist performance, for fast, efficient, uninterrupted load handling and simple fast recharging keeps trucks on the move.
- Advanced design drive axle - with self-adjusting power-assisted drum brakes - and new steer axle, - featuring HSM™ (Hyster Stability Mechanism) - give the driver confidence, which increases his productivity.

Ergonomics

- The ergonomically designed operator compartment provides a comfortable and highly productive environment for the operator, offering generous foot space and easy on/off access.
- Low noise and whole body vibration combined with a new full suspension seat - with 80 mm suspension travel and a range of adjustments - ensures the operator remains comfortable over long shifts.
- The fully adjustable tilt steering column - with telescopic and memory tilt options - allows the operator to get on and off the truck quickly and easily throughout the shift, ensuring maximum comfort and increased productivity.
- The new mini-lever module armrest with built in hydraulic controls, integrated directional control, emergency off switch and horn, offers the ultimate in comfort and control. Alternatively, seat-side manual levers also deliver easy load handling.
- A 'heads-up' display keeps the driver's field of vision clear but provides him with 'at a glance' information on truck operating conditions or performance settings.
- A rear grab handle with integrated horn for frequent reverse travel and an automatic park brake also contribute to ease of operation and excellent driver comfort.

Low Cost of Ownership

- A wide choice of truck capacity, battery size and wheelbase options offers customers the best combination of battery shift life, performance and manoeuvrability to match their application needs.
- Customisable performance settings allow energy efficiency to be ideally balanced with productivity, delivering high throughput at lower operating cost.
- Extended shift life reduces the need for battery recharging, saving time and money and increasing uptime.
- The Vehicle System Manager (VSM) allows adjustment of truck performance parameters and monitors key functions, leading to application matched performance and minimum downtime.
- Fast delivery of diagnostic information enables precise troubleshooting and easy maintenance planning and leads to lower operating costs.

Serviceability

- Standard 1 000 hour service interval.
- Service access is fast and unrestricted, with an easily removable two-piece floor plate providing access to brake fluid, hydraulic filter and valves, VSM, tilt cylinders and automatic park brake release.
- Battery is easily accessible thanks to the well designed hood, which opens to a wide angle with minimum effort.
- Access to diagnostic information via the display or plug-in point on the steering column allows service technicians to monitor truck operations and plan maintenance requirements.
- LED lights are designed to last the lifetime of the truck.



Strong Partners, Tough Trucks, for Demanding Operations Everywhere.

Hyster supplies a complete product range, including Warehouse trucks, IC and Electric Counterbalanced trucks, Container Handlers and Reach Stackers.

Hyster is committed to being much more than a lift truck supplier. Our aim is to offer a complete partnership capable of responding to the full spectrum of materials handling issues:

Whether you need professional consultancy on your fleet management, fully qualified service support, or reliable parts supply, you can depend on Hyster. Our network of highly trained dealers provides expert, responsive local support.

They can offer cost-effective finance packages and introduce effectively managed maintenance programmes to ensure that you get the best possible value. Our business is dealing with your materials handling needs so you can focus on the success of your business today and in the future.



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