



# CX Technical Data Low Level Order Picker





1.1	Manufacturer			STILL	STILL	STILL	STILL	STILL	STILL
1.2	Manufacturer's type designation			CX 20 / Li-lon	CX-M 10 / Li-lon	CX-D 20 / Li-lon	CX-S 16 / Li-lon	CX-H 16 / Li-lon	CX-T / Li-lon
1.3	7. 0			Electric	Electric	Electric	Electric	Electric	Electric
E 1.4	Operator type			Order Picker	Order Picker	Order Picker	Order Picker	Order Picker	Standing
<b>uių</b> 1.5		Q	kg	2000	1000	2000 (1000 on main lift)	1600	1600 (800 on main lift)	-
1.5.	1 2	Q	kg		-	-	-	-	4000
1.6	9	С		1200	600	600	1200	1200	-
1.8	Load distance, centre of drive axle to fork	Х	mm	1615	675	942	1381 <sup>1</sup> /1542	1906 <sup>2</sup> /1805 <sup>3</sup>	-
1.9	Wheel base	у	mm	2843 <sup>4</sup>	1906	2308	2661 <sup>1</sup> /2822	3271 <sup>2, 5</sup> /3170 <sup>3, 5</sup>	1195
2.1	Service weight	kg	kg	1145	1218	1380	1476	1522 <sup>6</sup>	1170
- Leg 2.2	Axle loading, laden front/rear	kg	kg	1250/1895	868/1350	1256/2132	1202/1874	1307/1815 <sup>2,6</sup>	-/-
≥ 2.3	Axle loading, unladen front/rear	kg	kg	880/265	842/376	934/446	1016/460	1092/430 <sup>2,6</sup>	585/585
3.1	Tyres			Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Cushion/Superelastic
· <b>S</b> 3.2	Tyre size front			Ø 250 x 100	Ø 250 x 100	Ø 250 x 100	Ø 250 x 100	ø 250 x 100	Ø 250 x 100
3.3	Tyre size rear			Ø 85 x 80	Ø 85 x 80	Ø 85 x 61,5	Ø 82 x 34	ø 85 x 80	Ø 250 x 80
3.4	Support castors			Ø 150 x 50	Ø 150 x 50	Ø 150 x 50	Ø 150 x 50	ø 150 x 50	-
≥ 3.5				1 x 1/4	1 x 1/4	1 x 1/4	1 x 1/8		1 x /2
3.6	Tread front/rear			475/348	475/380	475/380	475/356	475/380	-/679
4.2			mm		1375	1280	1371	1289	-
4.4	Lift	h <sub>3</sub>		130	700	1580	700	1580	-
4.5		h <sub>4</sub>	mm		2075	2070	2071		-
4.8	Seat height	h <sub>7</sub>		135	136	136	136	136	146
4.9				1165	1165	1165	1165	1165	1165
4.1		h <sub>10</sub>	mm		-	-	-	91	190/245/300/355/410
	Lowered height	h <sub>13</sub>	mm		86	91	85		-
900 4.1	1 0 0	I <sub>5</sub>	mm		-	2700	3852	- 3991 <sup>5, 7</sup>	128
4.11		l <sub>1</sub>		3805 <sup>4</sup>	2601 1416	1550	1465	1550 <sup>5, 7</sup>	1573
4.2	Length to face of forks  Overall width	$b_1/b_2$	mm		800	800	800		800
4.2		s/e/l		61/172/2390	56/184/1190	52/180/1150	75/184/2390	52 (65 <sup>8</sup> )/172 <sup>9</sup> /1295	-/-/-
4.2		b <sub>3</sub>	mm		774	711	784	711	-/-/-
4.2	<u> </u>	b <sub>5</sub>	mm		564	560	540	580	-
4.3		m <sub>2</sub>	mm		29	25	10		70
4.3	•	Ast		41274	2951	3171	4141 1/4154	4404 <sup>2,5</sup> /4391 <sup>3,5</sup>	-
		Wa		3046 <sup>4</sup>	2091	2495	2846 <sup>1</sup> /3007		1390
5.1	Travel speed laden/unladen			9.0/12.5	8.0/10.5	8.0/10.5	8.0/11.0	8.0/10.5	7.5/13.0
5.2	Lift speed laden/unladen			0.13/0.20	0.13/0.20	0.15/0.23	0.09/0.17	0.15/0.23	-/-
5.3	Lowering speed laden/unladen		-	0.12/0.09	0.12/0.10	0.23/0.28	0.13/0.11	0.23/0.28	-/-
<b>9</b> 5.5			N	-	-	-	-	-	1600
5.6	Max. drawbar pull laden		N	-	-	-	-	-	4000
5.7	Gradeability laden/unladen		%	1.7/3.2	-	-	-	-	see diagram page 5
<b>a</b> 5.8	Max. gradeability laden/unladen		%	6/6	-	-	-	-	-
5.9	Acceleration time laden/unladen		S	6.4/5.2	5.5/4.8	5.5/4.8	6.4/5.5	5.5/4.8	-/-
5.1				Electromagnetic	Electromagnetic	Electromagnetic	Electromagnetic	Electromagnetic	Electromagnetic
6.1	Drive motor rating \$2 60 min		kW		3.0	3.0	3.0	3.0	3.0
6.2	Lift motor rating at S3 15%		kW	2.2	2.0	2.0	2.0	2.0	-
6.3	, , , , , , , , , , , , , , , , , , , ,			IEC 254 - 2; B	IEC 254 - 2; B	IEC 254 - 2; B	IEC 254 - 2; B	no	IEC 254 - 2; B
·불 6.4	Battery voltage/nominal capacity K₅			24/465 // Li-lon 24/410	24/465 // Li-lon 24/410	24/465 // Li-lon 24/410	24/465 // Li-lon 24/410	24/465 <sup>6</sup> // 24/620 <sup>10</sup> // Li-lon 24/410	
<b>ä</b> 6.5	Battery weight			410	410	410	410	402 <sup>6</sup> -515 <sup>10</sup>	410
6.6	Energy consumption according to VDI cycle		kWh/h		-	-	-	-	-
<u></u> 8.1	Type of drive unit		15.41	AC control	AC control	AC control	AC control	AC control	AC control
≥ 8.4	Sound pressure level at the driver's seat		dB(A)	66.5	73.3	73.3	71.2	73.3	64.0

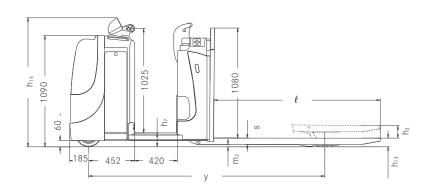
<sup>5</sup> With battery tray 465 Ah; with battery tray 620 Ah + 86 mm

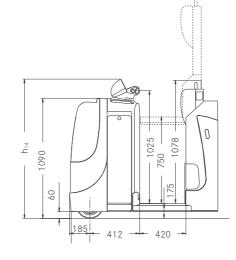
With forks raised
With forks lowered (h<sub>5</sub> = 0)
With forks raised (h<sub>5</sub> = 130)
With battery tray 620 Ah: + 85 mm

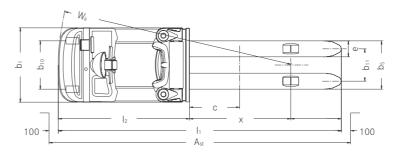
With battery tray 465 Ah
With collision guard + 61 mm
Next to front side of fork-carriage

<sup>9</sup> 200 mm on main lift

<sup>10</sup> With battery tray 620 Ah

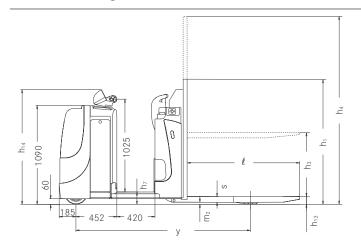




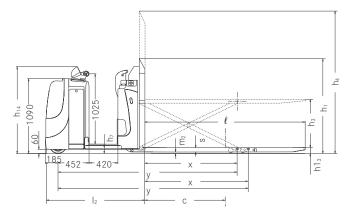


Side view CX 20 with optional platform Side view CX 20

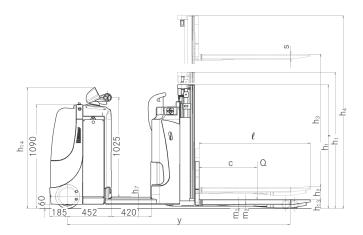
Top view CX 20



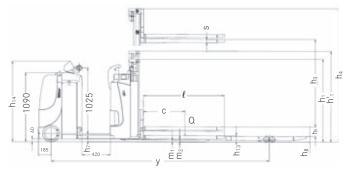
Side view CX-M 10



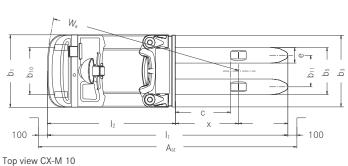
Side view CX-S 16

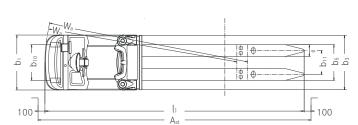


Side view CX-D 20



Side view CX-H 16

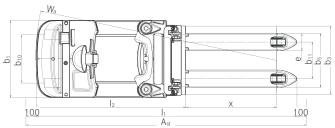




Top view CX-S 16

## Additional dimensions

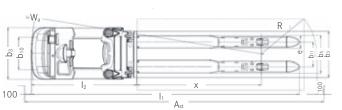
	Mast height with used free lift	h <sub>1</sub> '	mm	1410
9	Free lift	h <sub>2</sub>	mm	150
S	Initial lift	h <sub>5</sub>	mm	130
	Ground clearance under mast, laden	$m_1$	mm	21



Top view CX-D 20

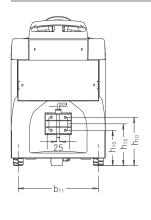
## Additional dimensions

귀 16	Initial lift	h <sub>5</sub>	mm	130
S	Height of wheel arms	h <sub>8</sub>	mm	85

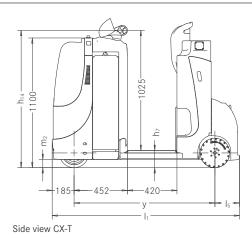


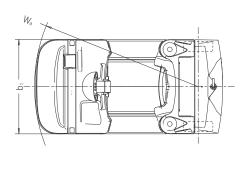
Top view CX-H 16

# CX-T Electric Tractor Technical Drawings



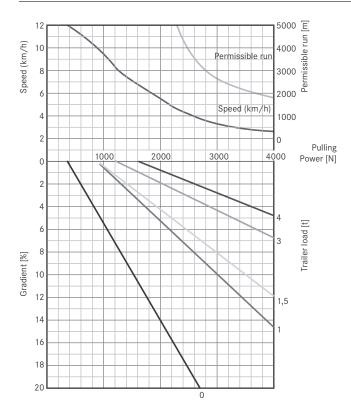
Rear view CX-T





Top view CX-T

## **CX-T Performance Diagram**



Performance example: On a 2% gradient with a towed load of 4 t, the CX-T can pull this load at a speed of 4.0 km/h for 3500 m uninterrupted, and still brake it. With the load and gradient combination shown a restart can be made on the gradient after a stop. The permissible run per hour is the total run including the return journeys. It is recommended that braked trailers be used when the trailer weight is more than 2.5 t, and for all trailer loads when driving on upward / downward inclines.

## **Turning Radius**

## Values for turning radius Wa for working aisle width calculation

Fork length $\ell$		Distance x	Battery tray		
			410 Ah Li-Ion	465 Ah	620 Ah
1190	mm	1005	2430	2430	2516
1450	mm	1265	2690	2690	2776
1650	mm	1105	2530	2530	2616
2150	mm	1605	3030	3030	3116
2390 ¹	mm	1845	3270	3270	3356
2390 <sup>2</sup>	mm	1615	3040	3040	3126
2900	mm	2125	3550	3550	3636
3100	mm	2125	3550	3550	3636

<sup>&</sup>lt;sup>a</sup> Wheel base suitable for picking up 3 Euro pallets crossways

<sup>&</sup>lt;sup>b</sup> Wheel base suitable for picking up 2 Euro pallets lengthways





Lifting up pallet to best working height

Compact size, even for most narrow working aisles

The truly prominent feature of the CX-M is its mast, which can be used to lift loads of up to 1,000 kg to a height of up to 785 mm. This means that the operator can always lift the pallet to the working height that is best for him or her. Thanks to its compact size, even the most narrow working widths do not a pose a challenge for the CX-M trucks. Work is made even more pleasant by the non-slip cushioned platform of the

driver's cab, various storage compartments and an optional writing desk. Of course, the CX-M trucks also come with all of the proven advantages of the entire CX product line, such as intuitive operation designed for left- and for right-handed operators, who can then drive, lift and steer with one hand and without changing their grip.

CX-D 20



Double-deck forklift truck for high storage density

Energy recovery when braking

Doubly efficient – the compact CX-D double deck forklift truck comes with all of the advantages of the CX product line – and then goes one step further. With this forklift truck, it is possible to transport two pallets, each with a load of 1,000 kg, on top of one another and still have an unobstructed field of vision. The warehouse can therefore be significantly condensed and the order picking procedures are noticeably more efficient. As it is divided into two order picking levels,

the CX-D is also perfectly suited to transporting breakable or delicate goods. Battery capacities between 345 Ah and 620 Ah which can be selected in advance guarantee a sufficient supply of energy. Energy recovery when braking means that the CX-D is extremely economical even at full capacity and the ECO and BOOST driving programmes allow for the output of the CX-D to be used in an even more targeted way.



Ergonomic order picking on two pallets

Automatic speed reduction when turning

The CX-S boosts employee morale as the scissor lift enables the working height to be individually adapted. This means that the ergonomically optimum load height can be set for all body sizes and all work situations. But that's not all – owing to its long forks, the CX-S can simultaneously lift two Euro pallets with a maximum combined weight of 1,600 kg to heights of up to 785 mm. The adjustable working

height guarantees efficient and healthy order picking operations. Moreover, the long forks of the CX-S mean that it is also perfectly suited to transporting long goods, for example in the furniture industry. The safety of the driver is ensured, for example, by the fact that the speed is automatically reduced when turning with a lifted load.



Higher driving speed due to improved load centre

Shortened footway to pallet

What should you do once your pallet has been loaded? With the CX-H, you simply fold down a second pallet and carry on with your order picking. This is how it works: Two empty pallets are picked up and the first one is positioned upright on the fork back. The loading of the second pallet can now begin. Once the work is complete, you simply lower the pallet which you have finished loading and move the forklift truck forwards until the lowered pallet reaches the top of the wheel

arms – the exact position is marked, which makes the process easier. Next, you fold the positioned pallet down onto the forks, which are now empty, and you can carry on. The work itself is extremely convenient and healthy thanks to the variable work height of up to 1,580 mm. There is also a considerable speed advantage, as the CX-H also has an impressive higher driving speed, and not just when turning, which is the result of an improved load centre.

CX-T



Stand-on tugger train for frequent mounting and dismounting

Efficient supply of production and assembly lines when used as tugger train

Would you like to transport loads over longer distances on one or more trailers in an efficient, healthy and safe way? If the answer is yes, you will love the CX-T! This electric tractor can pull up to 4,000 kg to the desired destination in no time. When used as a tugger train, it can be relied upon to supply production and assembly lines. The super elastic rear tyres roll smoothly and safely even across uneven floor surfaces. Plus, thanks to the low entry height, work can be carried out quickly

and conveniently, even when repeatedly mounting and dismounting, e.g. when hooking and unhooking trailers. Of course, the driver also gets all of the other advantages of the entire CX product line, such as the comfortable backrest, selectable driving programmes and optional writing desk.

### **Detailed Photos**



Workstation



Lower body protection



Operation



Backrest





9

CX 20



Multifaceted model, uniform operating concept

Simultaneous steering, lifting and driving — with just one hand without changing grip

Combines handling performance, comfort and safety

### СХ

Wherever you need it – with the various model versions of the CX product line and its modular design, STILL offers the perfect low level order picker for every situation. Take the CX 20 for example – the 'all-rounder' when it comes to horizontal goods transport of loads weighing up to 2,000 kg. High handling performance, well thoughout convenience and optimum safety are firm character traits of this efficient warehouse assistant. With the ECO and BOOST driving programmes, you can choose between maximum output and the best possible level of efficiency at the press of a button. Do you want to drive, lift and steer all at the same time? Do you want to control these functions with one hand, whether you are left- or right-handed? Not a problem with the CX product line! Combined with the low entry height, the comfortable backrest and the optional protective skirting, fatigue-free, convenient and safe operation is guaranteed – and not just in distribution warehouses.

#### CX Li-lon

The CX products with li-ion technology are an efficient and compact bundle of energy which guarantee optimum availability. Not only is interim charging of the truck possible, but the charging process itself is significantly quicker than that of conventional lead acid batteries – the lithium-ion battery can be charged to 60 percent in just 40 minutes. What's more, the lithium-ion battery lasts around twice as long as a lead acid battery, is maintenance-free and can be used in a cold store. This groundbreaking technology is also setting new standards with regard to safety. Every battery cell is monitored in real time. In short, the CX Li-lon models are the ideal low lift order pickers for extended periods of operation in industry, the retail market and logistics.

## **Extensive Equipment**

## Power

- Full power: maintenance-free, encapsulated 3 kW AC motor
- Low maintenance, long-lived batteries with a capacity of up to 620 Ah offer high availability Also available with lithium-ion battery of up to 410 Ah for particularly intensive applications
- Transports goods with a total weight of up to 2,000 kg at a time

## Precision

- Efficient and intuitive operation: driving, lifting and steering processes can be simultaneously controlled with just one hand without having to change grip
- Precise manoeuvring: very sensitive steering, which automatically goes back into the neutral position when not in use
- Complete control: smooth, accurately controlled starting and acceleration behaviour

## Ergonomics

- Safe, non-fatiguing operation: lower access with slanted step and anti-slip covering
- Protects back and joints: vibration-absorbing 'floating' platform
- Upholstered and ergonomic backrest with grip offers optimum comfort

## Compactness

- Suitable for the narrowest working widths thanks to its very compact chassis
- Perfect ergonomics: edge-free forklift truck contour
- Double-deck option: same forklift truck dimensions double picking frequency

### Safety

- Platform acts as dead man's switch: forklift truck is ready to move as soon as the operator has got in
- High safety level when turning thanks to automatic speed reduction
- Unauthorised access not possible: series access authorisation via PIN code
- Optional protective skirting for added safety

## **Environmental Responsibility**

- Energy recovery when braking
- ECO driving program: maximum energy efficiency at the touch of a button
- Over 95 per cent of all materials used are recyclable

# CX Low Level Order Picker Equipment Variants



		CX 20 / Li-lon	CX-M 10 / Li-lon	CX-S 16 / Li-lon	CX-D 20 / Li-lon	CX-H 16 / Li-lon	CX-T / Li-lon
	Driver's platform with upholstered backrest	•	•	•	•	•	•
	Driver's platform with height-adjustable lumbar support	_	_	_	_	_	0
	Fold-out step on battery hood	0	0	0			0
	Accessories bracket on the drive side – low	0	0	0	0	0	0
Driver's cab	Accessories bracket on the drive side – high	0	0	0	0	0	0
/er's	Accessories bracket on the drive side – high with cross piece	0	0	0	0	0	0
Pri	Accessories bracket on the load side – low	0					0
	Accessories bracket on the load side – high	0	_	_	_	_	0
	Accessories bracket on the load side – high with cross piece	0					0
	Adjustable DIN A4 writing pad	0	0	0	0	0	0
	Coat hook on the accessories bracket	0	_	_	_	_	_
20	Pedestrian operation using butterfly switches in the cockpit	0	0	0	0	0	0
Steering	Pedestrian operation using butterfly switches in the cockpit and push buttons on the side of the backrest	0	0	0	0	0	0
	Pedestrian operation using push buttons on the side of the backrest	0	0	0	0	0	0
"	External width $b_5 = 520 \text{ mm}$	•		•	_		
Forks	External width $b_5 = 540 \text{ mm}$	_	_		_	_	_
ш	External width $b_5 = 560 \text{ mm}$	0	•	_	-	• —	_
	External width $b_5 = 670 \text{ mm}$	0	0	0	0	0	_
	Lift with lowering lock when driving (115 mm)  Load backrest with a height of 1875 mm	0			_		_
	Load backrest with a height of 1450 mm	U				0	_
	Load backrest with a height of 1450 mm and pallet fixing (vertical)		_	_	_	0	
	Warning light with flashlight						0
nce	Lighting system with reverse and brake lights	_		_	_	_	0
Safety and performance	Panoramic rear-view mirror on the left and right		_	_	_	_	0
erfol	Speed limited when forks are lowered	0	_	_	_	0	_
g b	Speed limited to 6 km/h	0	0	0	0	0	_
ty ar	Speed limited to 8 km/h	0	0	0	0	0	_
afei	Speed limited to 10 km/h	0	0	0	0	0	_
0)	Profiled drive wheel	0	0	0	0	0	0
	FleetManager: access authorisation, shock detection, reports, OptiTruck	0	0	0	0	0	0
	Accident detection by means of acceleration sensor	0	0	0	0	0	0
	Accident detection by means of acceleration sensor with simultaneous activation of creep speed mode	0	0	0	0	0	0
	Battery compartment for 345 – 465 Ah batteries	•	•	•	•	•	•
Battery system	Battery compartment for 520 – 620 Ah batteries	0	0	0	0	0	0
sys	Battery compartment for 205 Ah li-ion battery	•	•	•	•	•	•
tery	Battery compartment for 410 Ah li-ion battery	0	0	0	0	0	0
Bat	Battery hood made from sheet steel for 345 – 465 Ah batteries	0	0	0	0	0	0
	Battery hood made from sheet steel for 520 – 620 Ah batteries	•	•	•	•	•	•
	Prongs with extendible/retractable runners	0	_	_	_	_	_
	Adjustable working lights in all directions						0
	Storage boxes at the rear	_	_	_	_	_	0
Additional equipment	Steel protective skirting with solid rubber cover	0	0	0	0	0	0
	Steel protective skirting	0	0	0	0	0	0
	Extendible stand-on platform (reach height of 2500 mm)	0	0	0	_	_	_
	Cold store version down to -30 °C with exchangeable insert	0	0	0	0	0	
dditi	Hours counter active when driving and lifting	•	•	•	•	•	•
Ā	Hours counter with permanent display when driving and lifting Preparation for MMS (Material flow Management System)	0	0	0	0	0	0
	, , ,	0	0	0	0	0	0
	Data transfer using Bluetooth Data transfer using GPRS	0	0	0	0	0	0
	Data transition using on to		<u> </u>				

● Standard ○ Optional — Not available







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