

LTX-FF Technical Data

Multifunction Tractor with Lift Function

LTX-FF 05/Li-Ion

LTX-FF 10/Li-Ion



LTX-FF Multifunction Tractor with Lift Function Two in One

This specification sheet to VDI Guideline 2198, only provides the technical values for the standard truck. Different tyres, other masts, additional equipment, etc. may produce different figures.



				LTX-FF 05/Li-Ion		LTX-FF 10/Li-Ion	
Distinguishing marks	1.1	Manufacturer			STILL		STILL
	1.2	Manufacturer's type designation			LTX-FF 05/Li-Ion		LTX-FF 10/Li-Ion
	1.3	Drive			Electric		Electric
	1.4	Operation			Stand-on		Stand-on
	1.5	Rated capacity/rated load	Q	kg	500		1000
	1.5.1	Trailer load	Q	kg	5000		5000
	1.6	Load centre distance	c	mm	(400) 500 (600)		(400) 500 (600)
	1.8	Load distance	x	mm	165		165
	1.9	Wheel base	y	mm	1168		1282
Weights	2.1	Service weight (incl. battery)		kg	1587		1677
	2.2	Axle load, laden	drive end/load end	kg	542/1545		391/2286
	2.3	Axle load, unladen	drive end/load end	kg	848/739		907/770
Tyres/chassis	3.1	Tyres			Polyurethane		Polyurethane
	3.2	Tyre size	drive end	mm	254 x 102		254 x 102
	3.3	Tyre size	load end	mm	250 x 80		250 x 80
	3.5	Number of wheels (x = driven)	drive end/load end		1x/2		1x/2
	3.7	Track width	load end	mm	604		604
Basic dimensions	4.1	Tilt of fork carriage	forward/backward	α/β	°	0/5	0/5
	4.2	Height	mast lowered	h ₁	mm	1776	1776
	4.4	Lift		h ₃	mm	1204	1204
	4.5	Height	mast extended	h ₄	mm	1776	1776
	4.8	Stand height/seat height	min./max.	h ₇	mm	150//905/1094	150//905/1094
	4.9	Height drawbar in driving position	min./max.	h ₁₄	mm	1270	1270
	4.12	Coupling height		h ₁₀	mm	245/300/355 (520 max) ¹	245/300/355 (520 max) ¹
	4.15	Fork height	lowered	h ₁₃	mm	55	55
	4.17	Overhang length		l ₅	mm	192	192
	4.19	Overall length		l ₁	mm	1544 ² /2504 ³	1658 ² /2618 ³
	4.20	Length to face of forks		l ₂	mm	1514	1628
	4.21	Overall width		b ₁	mm	800	800
	4.22	Fork dimensions		s/e/l	mm	45/110/(790)/ 990/(1190)	45/110/(790)/ 990/(1190)
	4.24	Fork carriage width		b ₃	mm	500	500
	4.25	Distance between fork arms		b ₅	mm	500	500
	4.31	Ground clearance, laden, below mast		m ₁	mm	70	70
	4.32	Ground clearance, centre of wheel base		m ₂	mm	70	70
	4.34.1	Aisle width for pallets 1000 x 1200 crossways		A _{st}	mm	2871	2982
	4.34.2	Aisle width for pallets 800 x 1200 crossways		A _{st}	mm	2697	2808
	4.34.3	Aisle width for pallets 800 x 1200 lengthways		A _{st}	mm	2983	3094
	4.35	Turning radius		W ₆	mm	1361	1472
Performance data	5.1	Travel speed	laden/unladen	km/h	7.5/13		7.5/13
	5.1.1	Travel speed, backwards	laden/unladen	km/h	4/4		4/4
	5.2	Lift speed	laden/unladen	m/s	0.17/0.23		0.12/0.23
	5.3	Lowering speed	laden/unladen	m/s	0.28/0.26		0.23/0.26
	5.8	Max. gradeability	laden/unladen	%	11/16.3 ⁴		6.5/16.6 ⁴
	5.9	Acceleration time	laden/unladen	s	5.9/5.0		6.0/4.8
5.10	Service brake				Electromagnetic	Electromagnetic	
Electric engine	6.1	Drive motor, rating S2 = 60 min		kW	3		3
	6.2	Lift motor, rating at S3		kW	2.2/5%		2.2/5%
	6.3	Battery according to DIN 43531/35/36; A, B, C, no				No	No
	6.4	Battery voltage/nominal capacity K _s		V/Ah	24/345-465 Li-Ion: 24/205-410		24/560-620 Li-Ion: 24/205-410
	6.5	Battery weight ±5%		kg	402		515
	6.6	Energy consumption according to VDI cycle		kWh/h	-		1.13
	6.7	Turnover output		t/h	-		43
Misc.	8.1	Drive control			AC control		AC control
	10.7	Sound level at driver's ear		dB(A)	<70		<70

¹ With trailer coupling three positions

² -4 mm with fork length l = 790 mm; +4 mm with fork length l = 1190 mm

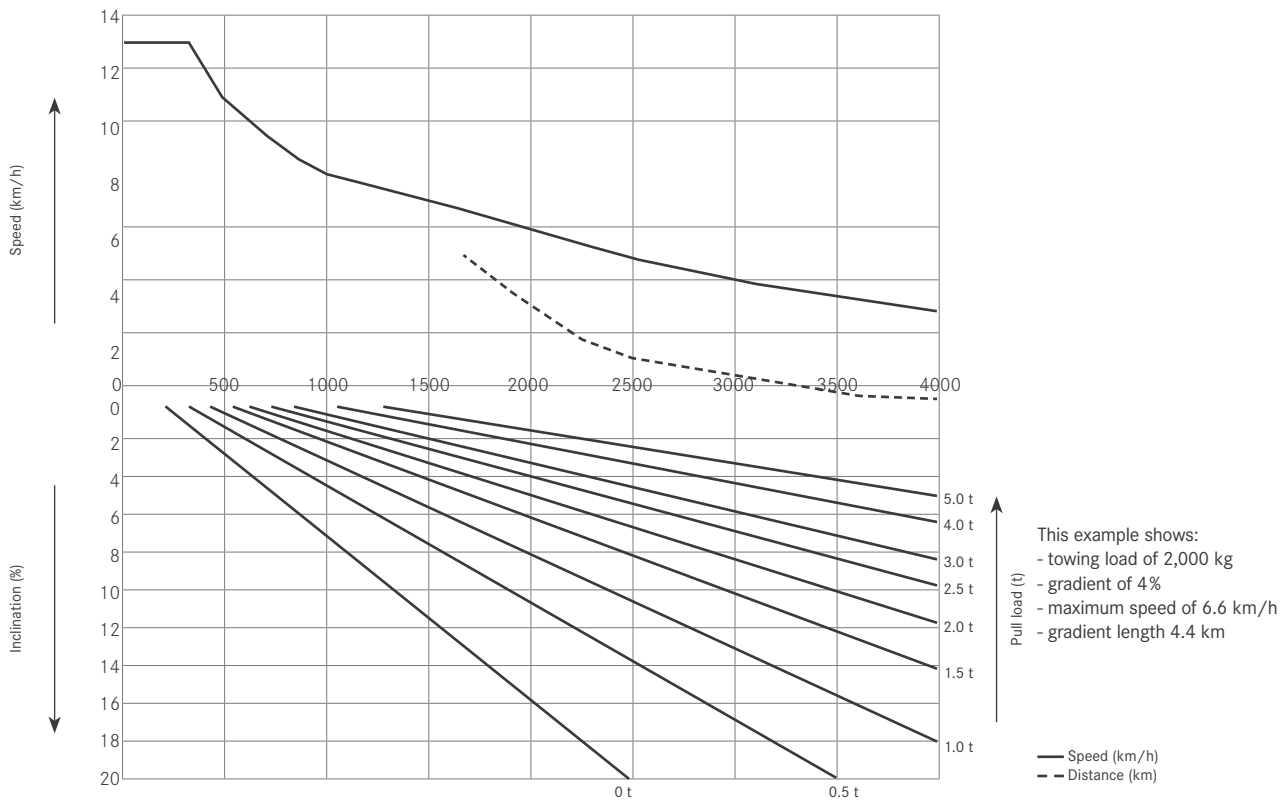
³ -200 mm with fork length l = 790 mm; +200 mm with fork length l = 1190 mm

⁴ When used as a stacker; for use as a tractor see diagram

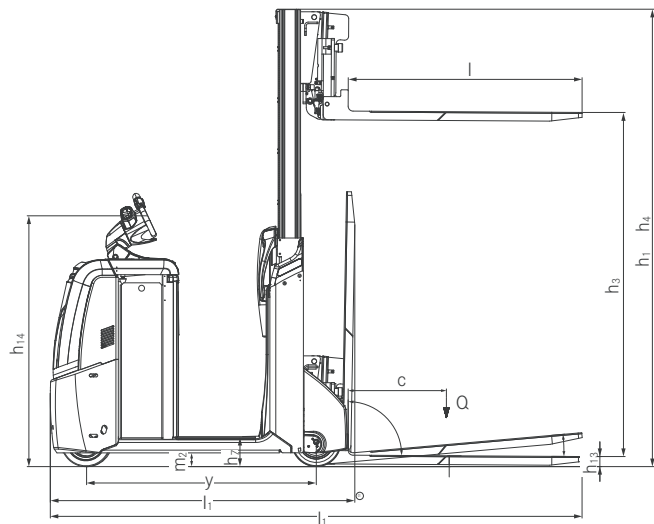
Mast Table

			Single mast	
Height, mast lowered	h ₁	mm	1776	2326
Free lift	h ₂	mm	1204	1754
Lift	h ₃	mm	1204	1754
Height, mast extended	h ₄	mm	1776	2326

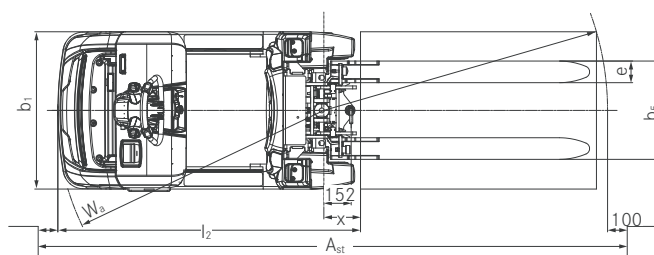
LTX-FF Multifunction Tractor with Lift Function Performance Diagram



Technical Drawings

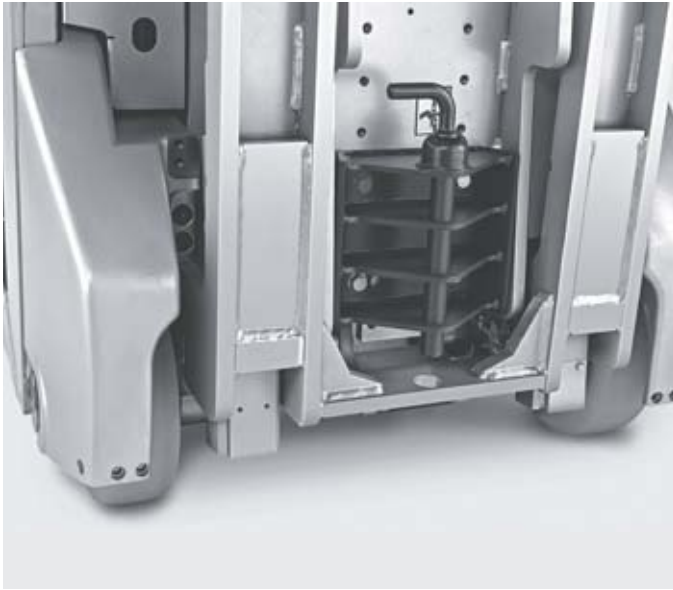


Side view



Top view

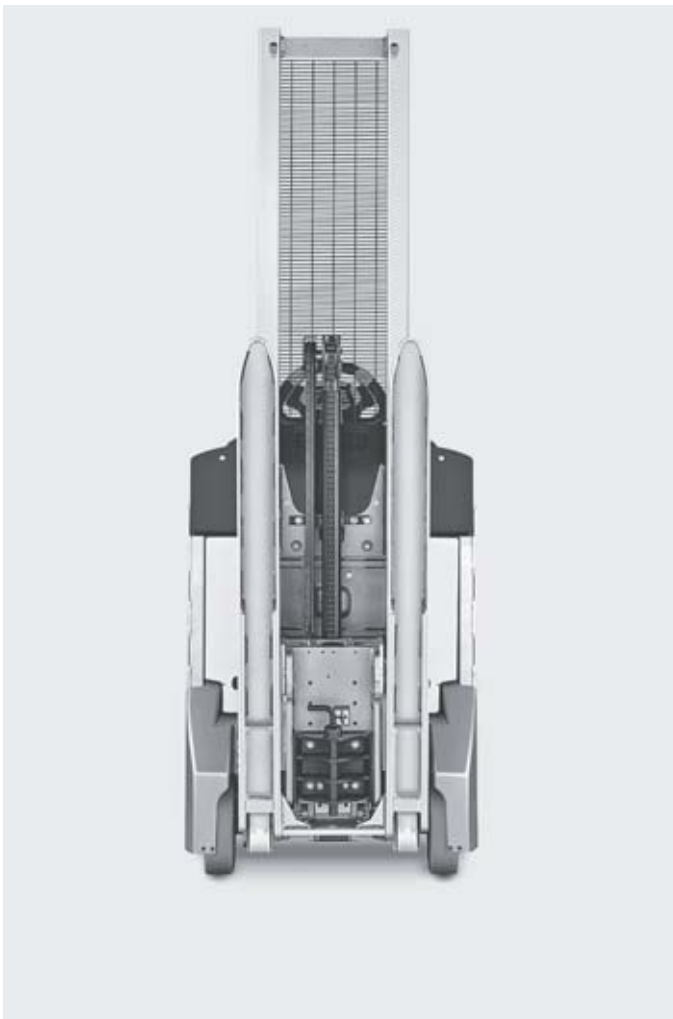
LTX-FF Multifunction Tractor with Lift Function
Detailed Photos



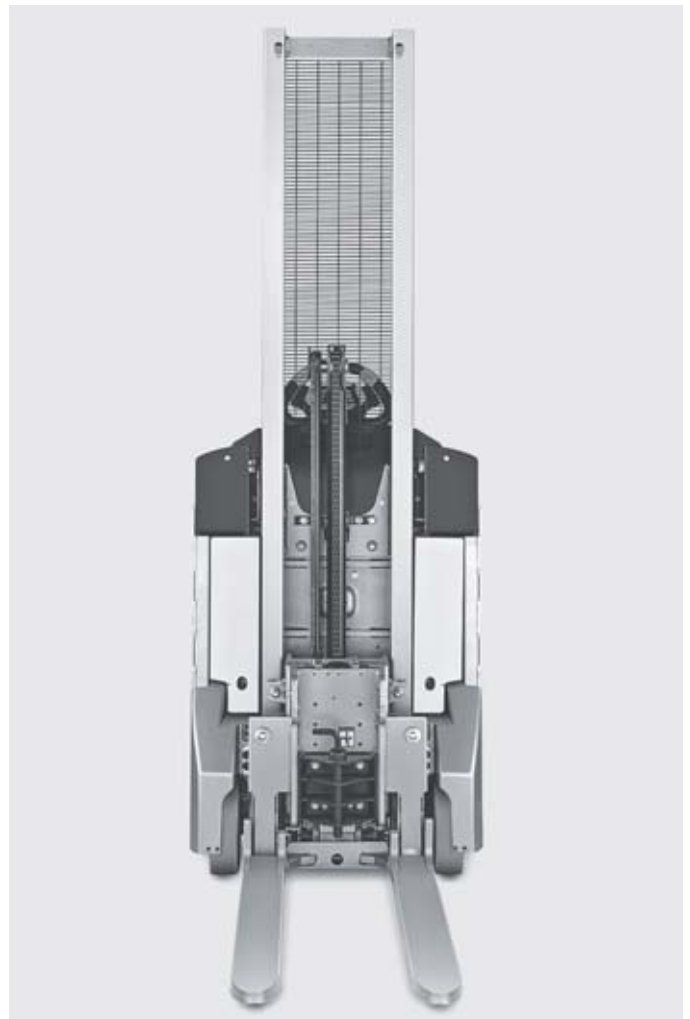
Multiple fields of application due to different connection options for tugger train elements and trailers



Patented mechanism for safe and quick folding of the forks



Multifunctional use as tractor or forklift truck with only one vehicle



LTX-FF Multifunction Tractor with Lift Function
Two in One



Two in one: From tractor to forklift in seconds



Safe load handling thanks to integrated standard fork tilt function

LTX-FF Multifunction Tractor with Lift Function Two in One

All in one: Towing, stacking and tugger train operations with one device

STILL Easy Drive steering wheel: Intuitive operation of all functions without changing grip

Compact dimensions: Precise work in the narrowest aisles

Tractive power of five tons, load capacity of one ton, and a top speed of 13 km/h



This all-round talent is unique on the entire market: The STILL LTX-FF 05/10 with folding forks tows, stacks and supplies production lines as a tugger train. As the only series production vehicle of its kind worldwide, the LTX-FF 05/10 meets all the core requirements of modern production supply. It also impresses with strong performances in all disciplines: The universal talent pulls loads of up to five tons, lifts

up to 1,000 kg to a maximum height of 1,750 mm and achieves a top speed of 13 km/h. Furthermore, the multifunctional tractor scores with an incredibly intuitive operation - thanks to the STILL Easy Drive steering wheel. Unfold the cantilever forks at the push of a button, which with their standard tilt function ensure that each pallet remains safely in place. The STILL LTX-FF: One for all.

Extensive Equipment

Power

- Powerful, reliable and low-maintenance: Modern three-phase AC drive motor
- Strong handling capacity: High towing capacity up to 5,000 kg
- Fast transport of goods: Up to 13 km/h driving speed
- Maximum handling capacity through multi-functional use: Tow 5 tons and lift up to 1 ton to 1,750 mm with only one vehicle
- High availability with Li-Ion technology

Precision

- Intuitive operation of all functions without changing grip due to innovative STILL Easy Drive steering wheel
- Safe, shock-free transport of goods: Sensitive acceleration and steering as well as easy coupling and uncoupling with optional pedestrian operation
- Different driving programs for optimal handling for any application

Ergonomics

- Comfortable standing: Modern sprung and damped driver's stand, optionally also available with adjustable pneumatically damped stand-on platform
- Comfortable on long distances: Folding seat for more driving comfort
- Effortless work: Low entry makes stepping on and off the vehicle easier
- Generous driver's workplace with storage options

Compactness

- Patented fork folding mechanism: Extremely compact and manoeuvrable for working in confined spaces
- At home in narrow aisles: Very small turning radius enables use in narrow working aisles

Safety

- High safety and prevention of accidents: Good visibility of the vehicle with optional LED daytime running light, Safety Light and Safety Light 4Plus
- Versatile and flexible access control with FleetManager 4.x
- High safety when cornering due to steering angle-dependent speed control system Curve Speed Control
- To avoid damage by impact: Wide variety of collision protection variants

Environmental Responsibility

- A shining example: Long-life, energy-saving LED luminaires
- Sustainable: Over 95 percent of all materials used can be recycled
- Minimum noise emissions: Very quiet drive motor

LTX-FF Multifunction Tractor with Lift Function

Equipment Variants



		LTX-FF 05/Li-Ion	LTX-FF 10/Li-Ion
Driver's workplace	Ergonomically designed folding seat for long distances – folds in automatically after leaving the seat	○	○
	Low storage compartment in the driver's workplace on the load side, storage box on the rear side and foil roll holder at the front	○	○
	Pneumatically damped operator stand-on platform for working even more comfortably. For particularly ergonomic working conditions, the degree of damping can be adjusted individually for each operation and driver via the air pressure	○	○
	Step and grab handle for picking on higher levels	○	○
	Car socket 12 V/10 A	○	○
Tow coupling and system equipment LiftRunner	1-stage coupling (h ₁₀ = 190 mm), pin diameter 25 mm	○	○
	3-stage coupling (h ₁₀ = 190, 245, 300 mm), pin diameter 25 mm	●	●
	Rockinger coupling (h ₁₀ = 190 mm), pin diameter 25 mm	○	○
	1-stage coupling with automatic locking mechanism (h ₁₀ = 190 mm), pin diameter 25 mm	○	○
	System coupling for STILL LiftRunner tugger trains (h ₁₀ = 220 mm), pin diameter 28.5 mm	○	○
	3-stage coupling with three different bolt diameters and heights: h ₁₀ = 190 / ∅ 20 mm, h ₁₀ = 245 / ∅ 25 mm and h ₁₀ = 300 / ∅ 28 mm	○	○
Frame	Protection made of rubber - drive side	○	○
	Steel protection to provide additional protection for the drive motor and cover at higher heights	○	○
	Steel protection, height 550 mm on the drive side with preparation for a trailer coupling; maximum capacity 1,000 kg	○	○
	Steel protection, height 550 mm on the drive side with three-stage trailer coupling; maximum capacity 1,000 kg	○	○
	Steel protection to provide additional protection for the drive motor and cover at higher heights and further rubber protection at ground level	○	○
Battery system	Battery compartment for 345-465 Ah, craneable	●	●
	Battery compartment for 345-465 Ah, lateral change	○	○
	Battery compartment for 560-620 Ah, craneable	○	○
	Battery compartment for 560-620 Ah, lateral change	○	○
	Battery compartment for Li-Ion-Battery 205-410 Ah	○	○
	Adapter tray for alternative batteries	○	○
	On-board charger	○	○
Safety	Flashing light with protective grille	○	○
	Intelligent LED daytime running light	○	○
	STILL Safety Light 4Plus	○	○
Additional accessories	Power supply for trailers: 12 Volt, 7-pole for 7 different signals	○	○
	Pedestrian mode	○	○
	Hydraulic function for STILL tugger train elements, actuation via contact switch	○	○
	Hydraulic function for STILL tugger train elements, actuation by switch	○	○

● Standard ○ Optional — Not available

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STILL is certified in the following areas: Quality management, occupational safety, environmental protection and energy management.

