

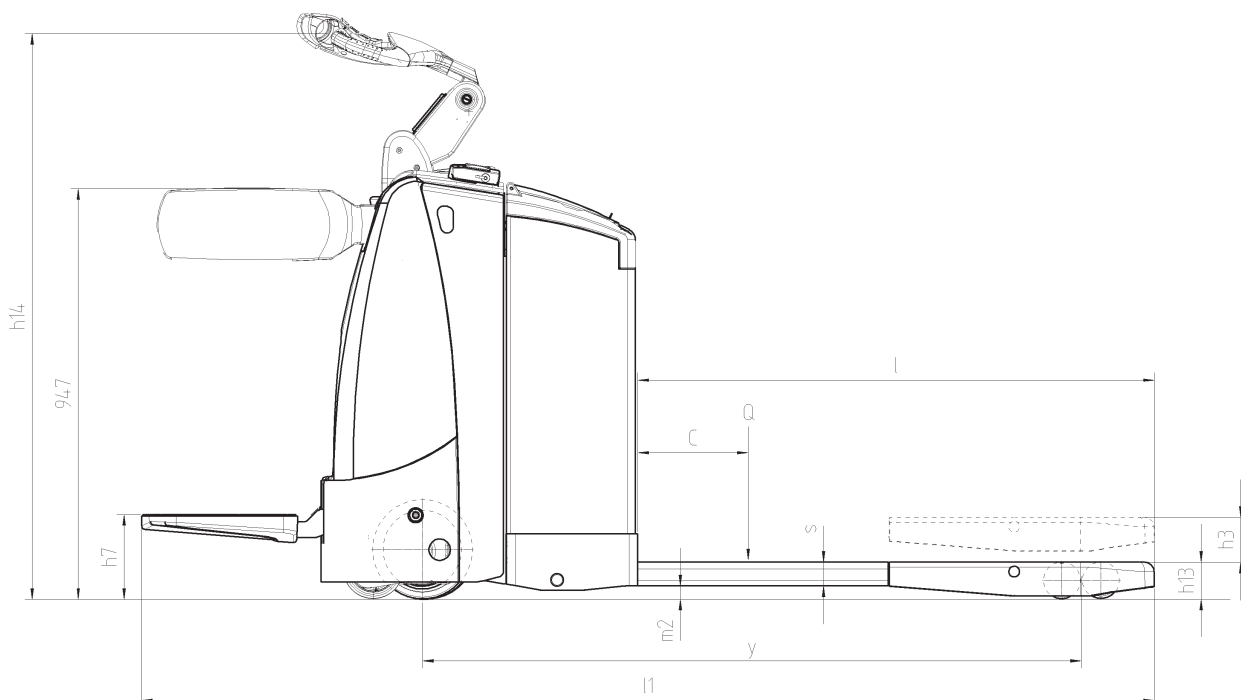


EXU-SF 20 Technical Data.



This specification sheet to VDI Guidelines 2198 only gives the technical figures for the standard truck.
Different tyres, other masts, additional equipment etc. could give different figures.

Characteristics	1.1	Manufacturer				STILL	
	1.2	Manufacturer's model designation				EXU-SF 20	
	1.3	Drive (electric, diesel, petrol LP Gas, mains electric)				Electric	
	1.4	Controls (hand, pedestrian, stand on, rider seated, order picker)				Stand-on/pedestrian	
	1.5	Capacity/load	Q	kg	2000		
	1.6	Load centre	c	mm	600		
	1.8	Load distance	x	mm	1023		
	1.9	Wheel base	y	mm	1518	1589	
	Weights	2.1	Truck weight (inc. battery)		kg	754	866
2.2		Axle load laden	drive end/load end	kg	1090/1664	1242/1624	
2.3		Axle load unladen		kg	590/164	678/188	
Wheels, chassis	3.1	Tyres (rubber, Vulkollan, pneumatic, polyurethane)			Polyurethane +		
	3.2	Tyre size	drive end	mm	Ø230x75		
	3.3	Tyre size	load end	mm	2x Ø85x80		
	3.4	Support castors	drive end	mm	Ø140 x54		
	3.5	Number of wheels (x = driven)	drive end/load end		1x-2/4		
	3.6	Track width	drive end	b ₁₀	mm	495	
3.7	Track width	load end	b ₁₁	mm	388		
Basic dimensions	4.4	Lift		h ₃	mm	130	
	4.8	Seat height / standing height (Platform)		h ₇	mm	195	
	4.9	Height of tiller in driving position	min. max.	h ₁₄	mm	1109/1305	
	4.15	Lowered height		h ₁₃	mm	85	
	4.19	Overall length without load		l ₁	mm	1919/2333	1995/2407
	4.20	Length including fork backs		l ₂	mm	728/1142	804/1218
	4.21	Overall width		b ₁	mm	720	
	4.22	Fork dimensions		s/e/l	mm	55/172/1190	
	4.25	Overall fork width		b ₅	mm	560	
	4.32	Floor clearance, centre of wheel-base		m ₂	mm	20	
4.34	Working aisle width with 800 x 1200 pallet lengthways (b ₁₂ X l ₆)		A _{st}	mm	2129/2542	2210/2618	
4.35	Turning radius		W _a	mm	1752/2165	1833/2241	
Performance	5.1	Travel speed	laden/unladen	Km/h	7.5/9.0		
	5.2	Hoist speed	laden/unladen	m/s	1.4/1.4		
	5.3	Lowering speed	laden/unladen	m/s	0.9/1.2		
	5.7	Gradeability	laden/unladen	%	10/20		
	5.9	Acceleration time (over 10m)	laden/unladen	s	6.9/5.4	6.9/5.5	
	5.10	Service brake			electromagnetic		
Electric motors	6.1	Drive motor, rating S2 = 60 min		kW	2.3		
	6.2	Hoist motor, rating at S3		kW	2.2/8 %		
	6.3	Battery to DIN 43531/35/36 A, B, C, No			2PzS	3PzS	
	6.4	Battery voltage, rated capacity C ₅		V/Ah	24 V/240 Ah	24 V/360 Ah	
	6.5	Battery weight ± 5% (depending on manufacturer)		kg	220	290	
Other	8.1	Drive control			AC-Controller		
	8.4	Sound level, at driver's ear		dB (A)	66		



Turning radius W_a for determination of the working aisle width.

Fork Length		EXU-SF 20					
		Load Distance X	Platform Unfolded	Platform Folded	Load Distance X	Platform Unfolded	Platform Folded
			250 Ah	250 Ah		350 Ah	350 Ah
990	mm	823	1965	1552	823	2041	1633
990	mm	805	-	-	805	2023	1615
1190	mm	1023	2165	1752	1023	2241	1833
1190	mm	1005	-	-	1005	2223	1815
1600	mm	1433	2575	2162	1433	2651	2243
1600	mm	1415	-	-	1415	2633	2225
a) 2390	mm	not available			2205	3423	3015
b) 2390	mm	not available			1847	3065	2657

- a) Wheelbase suitable for picking up 3 Euro pallets CROSSWAYS
- b) Wheelbase suitable for picking up 2 Euro pallets LENGTHWAYS



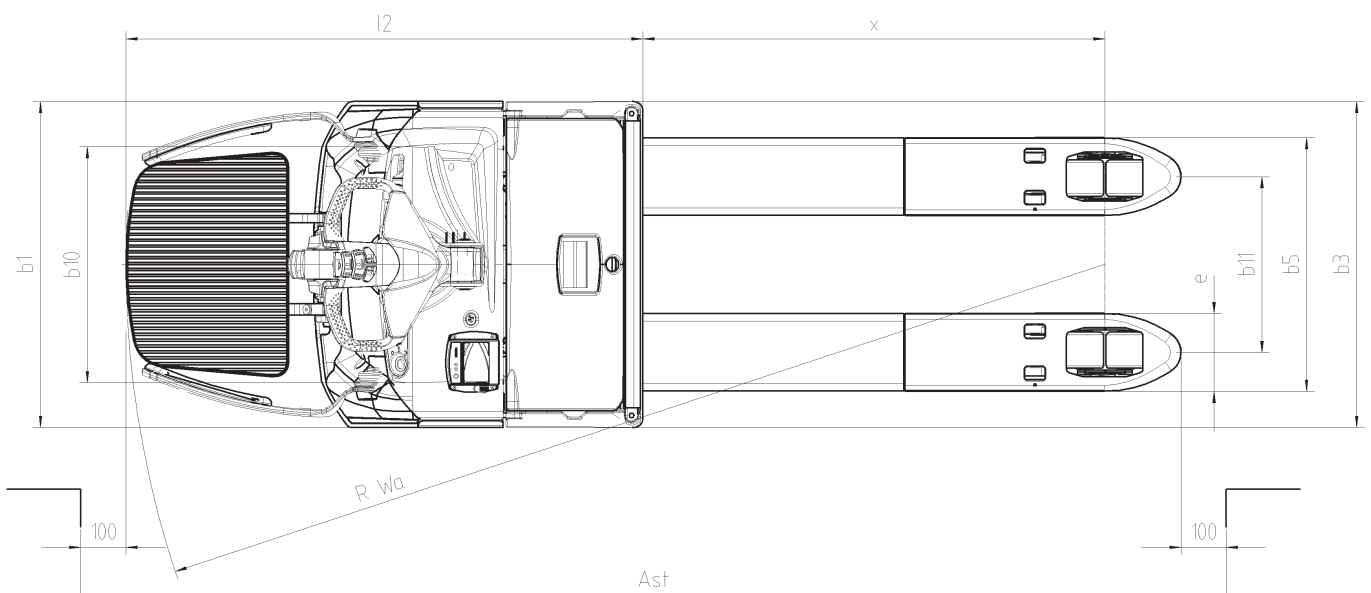
2 drive programs Eco and Boost for coordinated power and energy efficiency in any situation.



Unique, safe equipment, individually adjustable to the driver, due to a variable sprung driver's platform.



Adjustable height side guards and ergonomic tiller optimally designed for driving.



Electric low lift pallet truck with driver's stand-on platform.

The loading of lorries or trailers requires the greatest precision and manoeuvrability, speed of operation and absolute robustness to meet the requirements of modern logistics terminals. The EXU-SF 20 low lift pallet truck combines these properties with the advantages of unique flexibility. Whilst the folding platform in conjunction with the very compact build allows manoeuvring in the tightest spaces, the air suspension individually adjustable to the driver, and also the adjustable height side guards provide a high degree of individual support for the operator. The combination of its two drive programs enables maximum driving power at the same time as saving energy. The electrical tiller steering reduces speed when cornering depending on the steering angle. Unrivalled driving characteristics and high stability, thanks to a sprung drive wheel make the EXU-SF the most ergonomically advanced machine in its class.

Frame.

- The compact dimensions and flowing lines of the EXU-SF frame was developed for the optimal loading and unloading of lorries.
- The truck also operates easily on ramps and loading docks without getting stuck.
- To ensure manoeuvrability in the tightest spaces, for example when loading and unloading the first pallets, when the truck is parked in a goods lift or has to be transported directly in a lorry for delivery journeys, the driver's platform and side guard fold up.
- The sprung central drive unit exerts a constant wheel pressure proportional to the load on the forks thus ensuring excellent traction when accelerating and braking.
- Two robust support wheels ensure outstanding lateral stability.
- The EXU-SF has extremely robust forks made from steel sections with cast steel fork tips. The shape of the fork tips has been optimised for picking up all types of pallets easily and without damage.

Steering.

- The EXU-SF is fitted as standard with precise and user friendly electrical power steering.
- In the central tiller position any unintentional steering movements are filtered out electronically, in order to achieve precise travel movements.
- The automatic speed reduction when cornering, coupled with the side support wheels offers greater stability and reduces the effects of centrifugal force on the driver and load.

Tiller.

- All "SF" trucks are fitted with a stand-on platform for the driver. The dampening element is newly developed and allows to adjust the suspension individually to the weight of the driver.
- The switches are ergonomically designed to be suitable for right or left handed drivers. The push button for the horn and also the lifting and lowering function can be operated with one hand without changing the grip. Great idea to make the work easier!
- Thanks to the large sized buttons with a combination of indentations and projections any function can be felt even with industrial gloves, without the operator having to see the buttons.
- The layout of the controls allows simultaneous operation of the various functions, e.g. lifting and driving.
- The design of the switch elements (micro switches) and tiller PCB is to Enclosure Class IP 65, all plug connectors and also cable harnesses to IP 54, so there is little susceptibility to environmental factors such as rain or dust.
- Extremely robust tiller head in glass fibre reinforced polyurethane.

Driver's station.

- The prevention of muscular problems by good ergonomics and special equipment is a priority at STILL.
- The EXU-SF is fitted as standard with a hydraulically damped driver's stand on platform. This system, unique in warehouse handling equipment, absorbs the impacts and vibrations transmitted from the floor especially over expansion joints and dock levellers.
- The suspension is easy to regulate through a valve and offers the driver the chance to choose his personal comfort setting. A table with guideline figures based on the driver's weight gives an initial guide here.
- The wide hinged side guards are made of forged steel for maximum protection.
- STILL has further considered the ergonomics of the driver's station by offering a unique, patented system for adjusting the height of the protective side guards. Now operators of all sizes can find a position that is safe and comfortable for them.
- When not in use, the rider platform and side guards fold up within the contours of the truck which means less potential damage and increased manoeuvrability.

Drive.

- Powerful, economical three phase technology with a drive power of 2.3 kW.
- With two selectable drive programmes the operator can match the drive characteristics to the application or to his personal preference.
- In the „ECO“ mode (Tortoise button), the motor accelerates more gently and thus achieves a greater battery range with consistently high productivity.
- In the „BOOST“ mode (Hare button), the motor runs at maximum speed to achieve maximum productivity. When extra power is needed, for example at the end of a shift, this is an extra benefit.
- Due to the proportionality and precise monitoring of the torque the EXU-SF always runs smoothly.
- The travel speeds are easily adjusted to the operator's requirements.
- When stopped on a gradient or a slope and also if the drive switch is released, the controller prevents the truck from rolling back.

Hydraulics.

- A compact 2.2 kW motor with an integral oil tank, solenoid valves and safety valve provide smooth movement of the lift cylinder which is fitted with lift cut-out.
- This powerful hydraulic system gives fast lift times and guarantees a high turnaround of goods when loading and unloading lorries, even under maximum load.

Brake system.

- The EXU-SF provides double security due to two independent brake circuits:
- The smooth generator service brake, which is activated by releasing or reversing the butterfly switch.
- The electromagnetic emergency disc brake, which is activated by the Emergency Off button or putting the tiller into the vertical position.
- Driving is only possible when the driver is standing on the platform which acts as a dead man switch.

Battery.

- The battery is easily accessible and can thus easily be charged, serviced and topped up. In a multi-shift operation the battery can be changed vertically with a hoist or as an option from the side with a roller track.
- Two battery trays are available for 250 Ah or 375 Ah batteries.
- The metal battery cover is completely within the contours of the EXU-SF truck and is protected against collisions.

Options.

- Modular accessory system exclusively from STILL.
- Adjustable A 4 writing surface with paper clip.
- Combi-tiller
- Drive wheels in different materials (Polyurethane, Solid rubber, Non-marking...).
- Prepared for data terminal.
- Load backrest – 1200 or 1800 mm high
- Cold store version (-30°).
- Access control and Fleet Management with STILL FleetManager.
- Accident recorder (optional in conjunction with STILL FleetManager).
- Battery cover with stretch film holder.

Safety.

- STILL forklift trucks are built to the EC guideline 98/37 and are marked with the CE symbol.
- STILL is certified to ISO 9001.



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