

**STILL**



EXU-S 22

EXU-S 24

## EXU-S Technical Data.

Low-lift pallet truck with  
driver's stand-on platform



first in intralogistics

2 EXU-S TECHNICAL DATA

In accordance with VDI guidelines 2198 resp. 3597, this specification applies to the standard model only.  
Alternative types, mast types, ancillary equipment, etc., could result in different values.

		STILL				STILL				STILL				STILL				
		EXL-S 22 ①		EXL-S 22 ②		EXU-S 24 ①		EXU-S 24 ②		EXL-S 22 ①		EXL-S 22 ②		EXU-S 24 ①		EXU-S 24 ②		
Characteristics	1.2	Manufacturer's model designation				Rear access		Side access		Rear access		Side access		Rear access		Side access		
	1.3	Platform type				Electric Stand-on				Electric Stand-on				Electric Stand-on				
	1.4	Type of control (hand, pedestrian, stand-on, rider seat-on, order picker)																
	1.5	Capacity/Load	Q	kg	2202		2202		1400		1400		1400		1400			
	1.6	Nominal load centre	c	mm	690		690		690		690		690		690			
	1.8	Load distance	x	mm	1023		1023		1023		1023		1023		1023			
	1.9	Wheelbase	y	mm	1617		1617		1617		1617		1617		1617			
	2.1	Weight (incl. battery)		kg	1120		1120		1120		1120		1120		1120			
	2.2	Axle load(s)/laden		kg	150C/132C		150C/132C		150C/132C		150C/132C		150C/132C		150C/132C			
	2.3	Axle load(s)/unladen		kg	91C/210		91C/210		91C/210		91C/210		91C/210		91C/210			
Weight	3.1	Tires				Polyurethane		Polyurethane		Polyurethane		Polyurethane		Polyurethane		Polyurethane		
	3.2	Tyre size		drive end	mm	e 250 x 100		e 250 x 100		e 250 x 100		e 250 x 100		e 250 x 100		e 250 x 100		
	3.3	Tyre size		load end	mm	e 85 x 80		e 85 x 80		e 85 x 80		e 85 x 80		e 85 x 80		e 85 x 80		
	3.4	Caster wheels (size)		drive end	mm	2 ø 140 x 54		2 ø 140 x 54		2 ø 140 x 54		2 ø 140 x 54		2 ø 140 x 54		2 ø 140 x 54		
	3.5	Wheels, number (x = drive wheel)		drive end/load end		1 x -2/4		1 x -2/4		1 x -2/4		1 x -2/4		1 x -2/4		1 x -2/4		
	3.6	Track width		drive end	b	mm	470		470		470		470		470		470	
	3.7	Track width		load end	b	mm	388		388		388		388		388		388	
	4.4	Lift height		h	mm	130		130		130		130		130		130		
	4.8	Seat/Platform height		h	mm	200		200		200		200		200		200		
	4.9	Height of tiller in drive position		h	mm	1033		1033		1033		1033		1033		1033		
Dimensions	4.15	Force height: lowered			h	mm	85		85		85		85		85		85	
	4.19	Overall length		l	mm	2405 <sup>1</sup>		2475 <sup>1</sup>		2405 <sup>1</sup>		2475 <sup>1</sup>		2405 <sup>1</sup>		2475 <sup>1</sup>		
	4.20	Length to front face of forks		l	mm	215 <sup>1</sup>		285 <sup>1</sup>		215 <sup>1</sup>		285 <sup>1</sup>		215 <sup>1</sup>		285 <sup>1</sup>		
	4.21	Overall width		b	mm	720		720		720		720		720		720		
	4.22	Force dimensions		s/e/l	mm	55/172/1190		55/172/1190		55/172/1190		55/172/1190		55/172/1190		55/172/1190		
	4.25	Force external width		b	mm	560		560		560		560		560		560		
	4.32	Fiber clearance, centre of wheelbase		m	mm	30		30		30		30		30		30		
	4.36	Working area width for pallets 800 x 1200 lengthwise (b1 x l1)		A	mm	2615 <sup>1</sup>		2685 <sup>1</sup>		2615 <sup>1</sup>		2685 <sup>1</sup>		2615 <sup>1</sup>		2685 <sup>1</sup>		
	4.35	Order to lifting radius		W	mm	2238 <sup>1</sup>		2308 <sup>1</sup>		2238 <sup>1</sup>		2308 <sup>1</sup>		2238 <sup>1</sup>		2308 <sup>1</sup>		
	5.1	Towing Speed		l	km/h	10/12		10/12		9/12		9/12		9/12		9/12		
Performances	5.2	Lifting Speed/Time		l	m/s/s	3.3/2.1		3.3/2.1		3.3/2.1		3.3/2.1		3.3/2.1		3.3/2.1		
	5.3	Lowering Speed/Time		l	m/s/s	1.9/2.0		1.9/2.0		1.9/2.0		1.9/2.0		1.9/2.0		1.9/2.0		
	5.8	Gradability		l	%	15%		15%		15%		15%		15%		15%		
	5.9	Acceleration (time over 10 m)		l	s	6.2/4.6		5.3/4.3		6.2/4.6		5.3/4.3		6.2/4.6		5.3/4.3		
	5.10	Service brakes				electromagnetic		electromagnetic		electromagnetic		electromagnetic		electromagnetic		electromagnetic		
	6.1	Drive motor, rating S2 = 60 min		kW	3.0		3.0		3.0		3.0		3.0		3.0		3.0	
	6.2	Lift motor, rating at S3 = 15%		kW	2.2		2.2		2.2		2.2		2.2		2.2		2.2	
	6.3	Battery to DIN 43531/35/35; A, B, C, no				IEC 254-2; B		IEC 254-2; B		IEC 254-2; B		IEC 254-2; B		IEC 254-2; B		IEC 254-2; B		
	6.4	Battery voltage, capacity Ki		V/Ah	24/450		24/450		24/450		24/450		24/450		24/450		24/450	
	6.5	Battery weight ± 5% (dependent on manufacturer)		kg	410		410		410		410		410		410		410	
Electric motors	6.6	Energy consumption according to VDI cycle		kWh/h	1.05		1.05		1.07		1.07		1.07		1.07		1.07	
	8.1	Drive control				AC-controller		AC-controller		AC-controller		AC-controller		AC-controller		AC-controller		
	8.4	Noise peak at operator's ears		dB (A)	< 65		< 65		< 63		< 63		< 63		< 63		< 63	

## Low-lift pallet truck with driver's stand-on platform.

### Chassis frame.

- Optimised for loading and unloading vehicles, the EXU-S's design provides excellent driving characteristics on loading ramps, dock levellers and in the tight confines of lorries, containers and trailers.
- Acting as a slider, the lower edge of the frame will never catch on ramp edges, while the tapered platform sides allow reversing from vehicles without any risk of damage to the trailer side walls or loading dock seals, even when loading the final two pallet rows.
- The platform is an integral part of the frame, utilising a 'D-Box' structure that provides extreme reliability, even on the most violent of dock crossings.
- To optimise traction, the centre mounted drive unit is sprung and features variable wheel pressure proportional to the load on the forks.
- For lateral stability, two huge twin-castor wheels have been specially designed for the EXU-S for extreme reliability in the most arduous applications.

### Steering.

- Fully electric "Fly-by-Wire" steering with automatic return to the straight-ahead position.
- In the centre steering range, any unintentional steering movements are electronically damped, to guarantee precise straight ahead driving without unwanted steering movements.
- Automatic speed reduction during cornering combined with the support castors gives high lateral stability and reduces the centrifugal force effects on the operator.

### Multi-function controls.

- The new multi-function control "COCKPIT" contains all the functions for access, operation and monitoring on the EXU-S.
- Due to the ergonomic layout of the buttons, all functions can be reached with either hand without changing grip.
- The following functions are integrated in the COCKPIT:
  - Direction and speed control
  - Steering
  - Lifting and lowering
  - Work hour meter
  - Discharge battery indicator
  - Alternative drive profiles
  - Access control (provided as standard through PIN code entry)
  - Diagnosis (by means of service code)
- In addition, the COCKPIT provides a secure support for the operator whilst driving.

## Driver's stand-on platform.

- Depending on the application, the EXU-S is available with two platform types that have been ergonomically matched to the driver's needs. These needs are very different from one type of job to another, so there is no need to compromise by having only one platform type.
- For predominantly cross docking applications where pallet transfer or long travel distances require the driver to spend a long time standing on the machine, the platform with side access will offer the greatest comfort and security for driving in both directions.
- If the driver has to step in and out frequently for any peripheral work, (scanning, manual handling, etc.) then the platform with open rear access is best suited.
- Either platform style provides great comfort due to the padded backrest and shaped side supports combined with an innovative, unique, fully sprung platform to protect the driver's legs and back from shocks.
- The machine incorporates various storage facilities and a holder for rolls of stretch wrap integrated within the covers.
- A writing surface with document clip is available as standard on the EXU-S.

## Drive.

- Powerful, economical and hence cost saving due to the 3.0 kW AC-drive.
- The latest generation AC-controller combined with the STILL COCKPIT offers the possibility to adapt the truck's performance from one drive mode to another at the touch of a button.
- In "ECO" mode ('Tortoise' button) the drive is controlled to provide low current draw and standard acceleration. This results in 15% more battery economy but the same productivity and pallet throughput as other machines of this type currently available.
- In "BOOST" mode ('Hare' button) the drive is controlled to provide very high torque/acceleration and a higher travel speed with load. While the economy remains unchanged, the productivity increases by around 25% compared to other machines of this type currently available.
- Within each mode, the drive characteristics can be further fine-tuned (speed, acceleration, braking) to precisely match application or driver preferences.
- Thanks to the speed sensor feedback to the controller, the EXU-S will start smoothly and accelerate evenly up to maximum travel speed, independent of the load on forks.
- Truck braking is activated by releasing the COCKPIT drive control switch or by plugging. The AC-motor acts as a generator and recovers energy when braking (regenerative braking).
- When starting on a gradient, or if the drive switch is released or put into neutral, the controller will immediately detect any unintentional movement or roll-back and activate the magnetic disk brake.

### Hydraulic system.

- A compact pump and 2.2 kW motor unit with built in oil tank, solenoid valve and maximum pressure valve operates on the lift cylinder with lift cut-out.
- This powerful hydraulic system offers very short lift times, even with full load, thereby providing high productivity for loading and unloading vehicles.

### Brake system.

- There are two independent brake systems.
- "Soft" braking with energy recovery, activated by releasing or reversing the drive control.
- "Emergency" braking takes place when the push-button in the COCKPIT is actuated.
- Driving is only possible when the driver is on the stand-on platform, which acts as deadman switch.

### Battery.

- The battery is easily accessible, and for two or three shift operation can be changed with a hoist, or from the side using integral roller tracks.
- Two different battery compartment options allow batteries with capacities up to 450 Ah or 600 Ah to be used.

### Options.

- Unique modular accessory system using a multi-function frame bar over the battery cover.
- Adjustable A4 writing surface with paper clip.
- Preparation for data terminal.
- Additional mounting system for accessories of all types (on request).
- Load backrest (1200 or 1600 mm height).
- Cold store version (-30°C).
- 600 Ah battery compartment.
- Battery cover made of sheet steel.
- Advanced access control and fleet management with STILL FleetManager.

### Safety.

- Trucks are built to the EC Guidelines 98/37 and carry the CE symbol.
- STILL is certified to ISO 9001.



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