ETX 513/515 including Cold Store

10.04-

GB

Operating instructions

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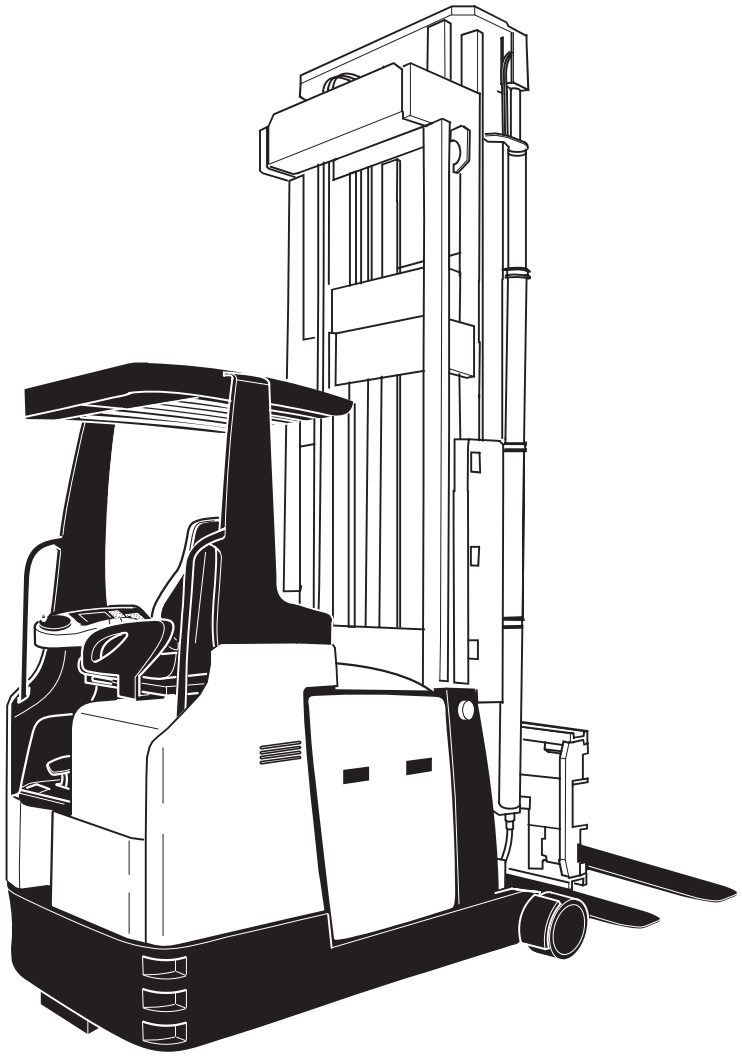


JUNGHEINRICH

3 Standard Version Specifications

➔ Technical data specified in accordance with VDI 2198.
Technical modifications and additions reserved.

3.1 Performance data

	Description	ETX 513	ETX 515	
Q	Capacity (where C = 600 mm)	1250	1500	kg
c	Load centre of gravity distance	600	600	mm
	Travel speed without load (RG)	10.5	10.5	km/h
	Travel speed with load (RG)	10.5	10.5	km/h
	Travel speed without load (IG)	9	9	km/h
	Travel speed with load (IG)	9	9	km/h
	Lift speed without load	0.46	0.46	m/s
	Lift speed with load	0.45	0.45	m/s
	Lowering speed without load	0.48	0.48	m/s
	Lowering speed with load	0.48	0.48	m/s
	Traverse speed w / w.o. load	0.2	0.2	m/s

3.1 Transport locking of the basic truck without the mast assembled

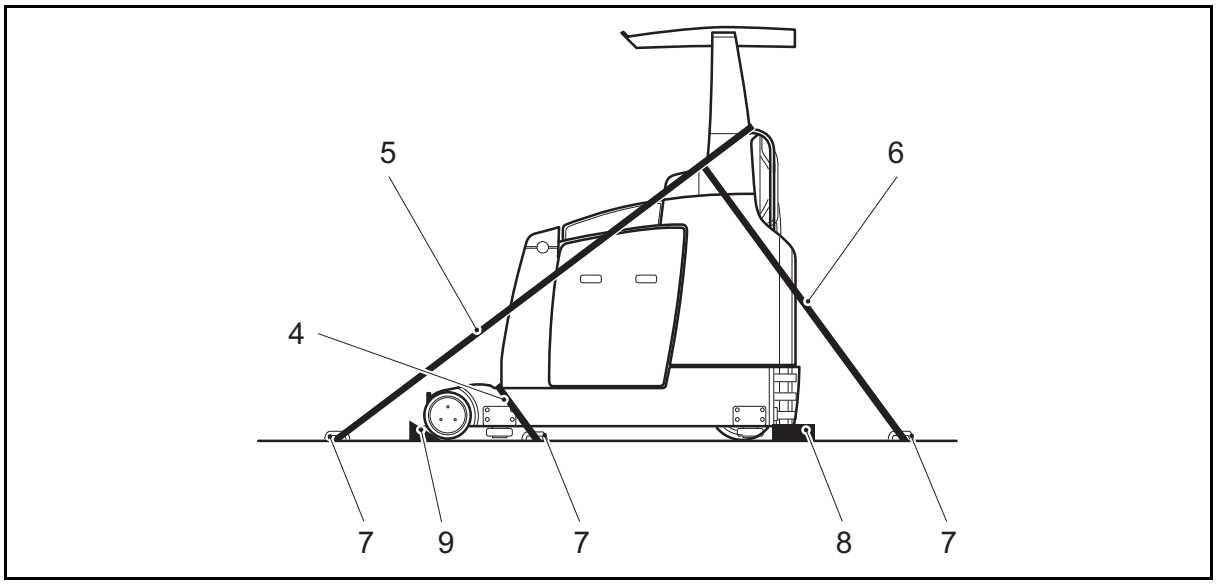
⚠ The mast must only be disassembled by the manufacturer's authorised service department.

➔ Only use belts with a rated capacity of >9 tonnes on the ETX 513/515.

⚠ When transporting, always relieve the drive wheel by placing the entire surface of a wooden beam (8) underneath the counterweight (minimum chassis width). In addition, secure the load wheels with wedges (9).

⚠ If the truck's battery is supplied in the chassis, disconnect the battery.

Fastening belts (5, 6) should be attached to at least 4 different lorry / truck eyes / attachment points (7).



Belts placed over "sharp" edges must be protected by a suitable support material, e. g. foam.

To ensure secure transport of an ETX 513/515, use the following prescribed attachment points for fastening/quick release belts.

– To secure the truck 2 belts (5,6) are tensioned from the driver's cab to the front (load direction) and to the rear (drive direction) respectively.
– The load axle can also be secured with a belt (4).

⚠ Note the cable routing and cover sharp edges with a suitable material.

4 Battery removal and installation

Only batteries with insulated cells and terminal connectors may be used. When replacing a battery always use the same battery type. Extra weights must not be removed and must remain in the same position.

The truck must be horizontal in order to prevent the battery from falling out when the battery retainer is removed.

Only connect and disconnect the battery connector and the socket when the mains and charger are switched off.

● **Installing and removing a battery with a battery trolley:**

– Turn key switch (3) to "0" (zero).
– Fully open the battery panel (see “Fully Opening the Battery Panel” in chapter D) and disconnect the battery (12).
– Lift out the left and right hand battery panels.
– Undo the battery retainer (15) by moving the lever (14) down and remove the retainer.
– Pull the battery (13) onto the side of the prepared battery trolley.

Make sure the battery trolley is properly secured.

After replacing/fitting the battery, make sure that the battery is well secured in the battery compartment.

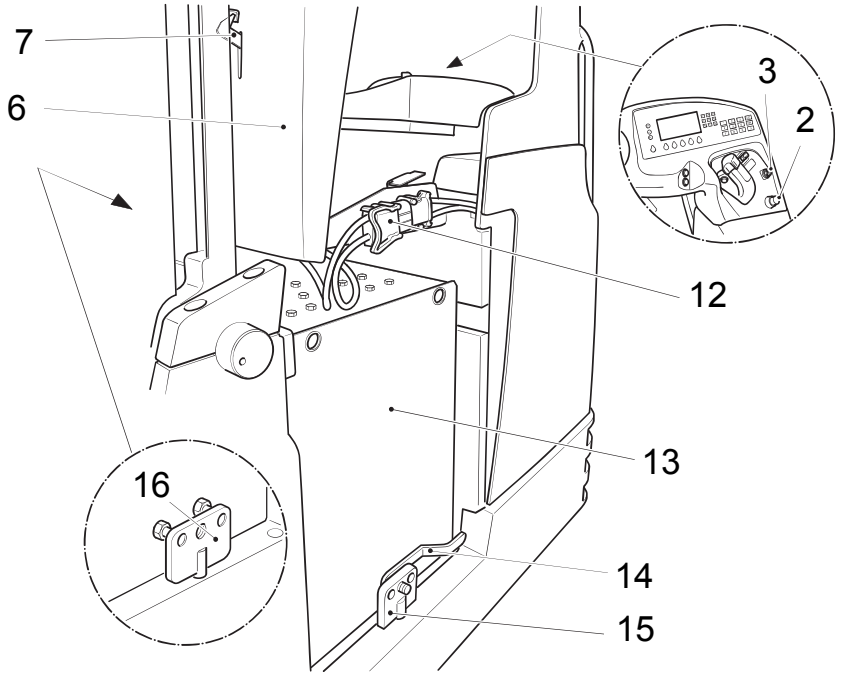
The battery retainers (15,16) can swap positions. This means that they can both be fitted in either the left or right side of the truck’s chassis.

Assembly is the reverse order.

To avoid pushing the battery (13) through on assembly, the battery retainer (16) must first be plugged in on the opposite side.

After installing again, check all cables and connectors for signs of visible damage and before using the truck again check that:

– the battery retainer (15) is fitted and secured by the lever (14),
– the left and right hand battery panels are inserted and the battery panel (6) is properly closed once the clip (7) has been undone.

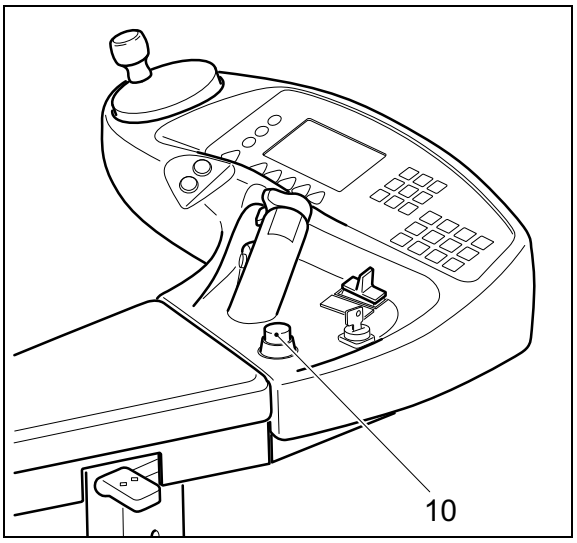


Symbol	Control or Display		Function
	“Automatic fork synchronised right rotate” display	○	Indicates that automatic fork synchronised right rotate – left traverse is possible
	“Automatic fork synchronised right rotate” switch		Activates fork right rotate with simultaneous automatic LAM left traverse
	“Fork synchronised rotate to centre position” display	○	Indicates that the forks can be set to the centre position (forks facing forwards)
	“Fork synchronised rotate to centre position” switch		Activates rotating with automatic fork stop in centre position, control of LAM traverse with hydraulic control button
	“Automatic fork synchronised rotate to centre position” display	○	Indicates that the forks can be automatically set to the centre position (forks facing forwards)
	“Fork automatic synchronised rotate to centre position” switch		Activates rotating with automatic fork stop in centre position, simultaneous automatic LAM traversing with stop at centre position
	“Telescopic fork” display	○	Indicates that the telescopic forks can be operated
	“Telescopic fork” switch		Activates the telescopic forks, controlled via the hydraulic control button
	“Telescopic table” display	○	Indicates that the telescopic table can be operated
	“Telescopic table” switch		Activates the telescopic table, controlled via the hydraulic control button
	“2nd stacking depth” display	○	Indicates that the 2nd stacking depth is possible
	“2nd stacking depth” switch		Activates the 2nd stacking depth, controlled via the hydraulic control button
	“Fork tilt” display	○	Indicates that fork tilt is possible
	“Fork tilt” switch		Activates the fork tilt, controlled via the hydraulic control button
	“Special attachment” display	○	Indicates that the special attachment can be controlled
	“Special attachment” switch		Activates control of the special attachment, controlled via the hydraulic control button

4.2 Travelling, Steering, Braking

EMERGENCY DISCONNECT

– Press the EMERGENCY DISCONNECT switch (10) down.
  All truck movements are inhibited.
  The operation of the switch must not be affected by any objects placed in its way.



Travel

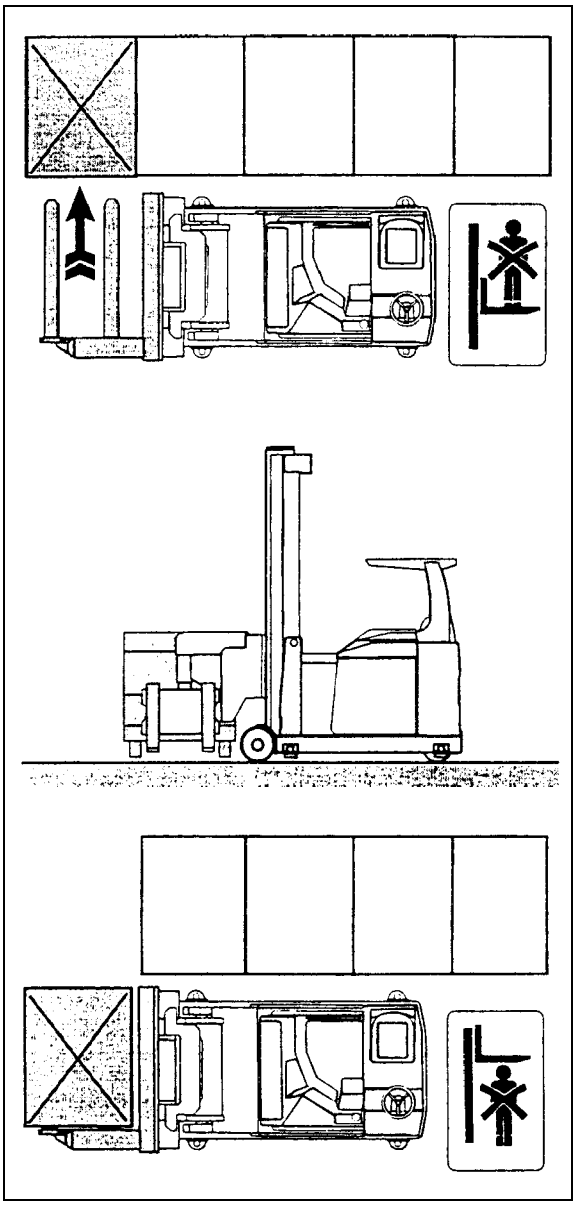
The truck can be driven in 3 modes:
Free travel, with wire or rail guidance.
The operating mode employed depends on the guidance system of the racking system operated.

⚠ Do not drive the truck unless the panels are closed and properly locked.

The foot switch must be kept depressed for travel.

Picking up a load from the side.

– Press foot switch.
– Drive the truck carefully up to the storage location
– Do not apply the foot switch.
– Slowly insert the forks into the pallet until the fork back touches the load or the pallet.
– Raise the load slightly.
– Retract the forks.



5.1 Emergency stop device

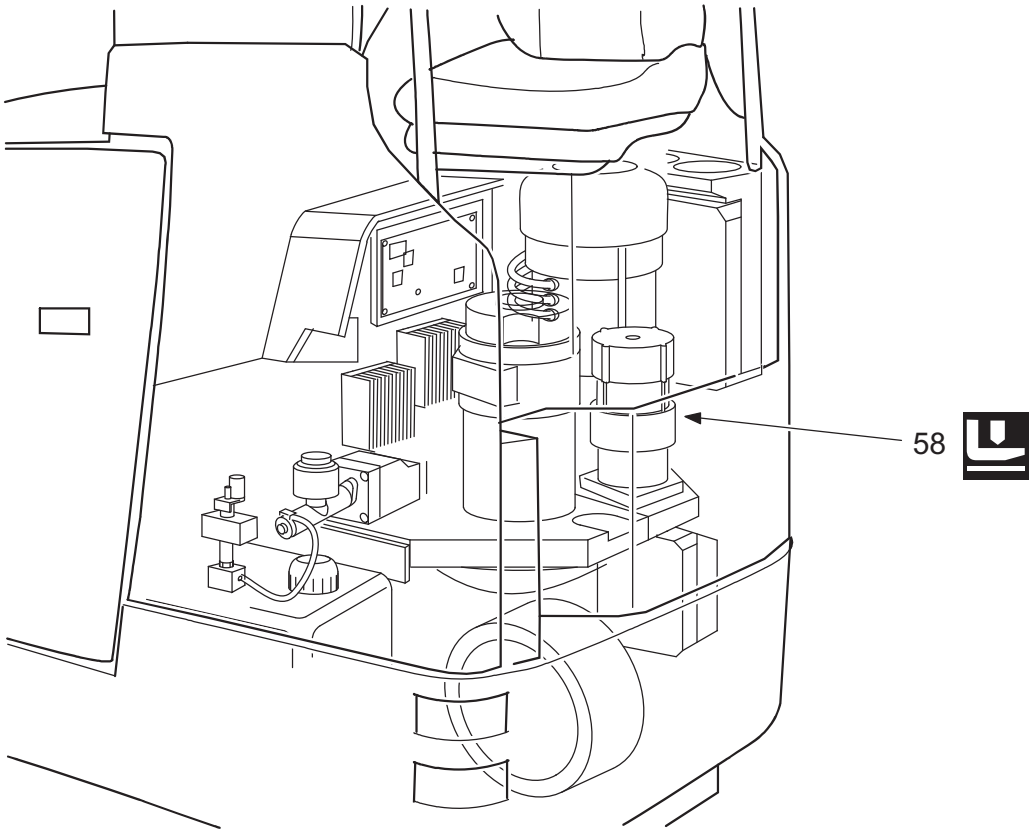
When the automatic emergency stop mechanism applies (e.g. if the wire guidance is lost, electrical steering fails) the truck brakes to a halt. Before starting again, the cause of the error must be identified and corrected. Start the truck again in accordance with manufacturer's instructions contained in these operating instructions (see "Starting up the Truck" in Chapter E).

5.2 Load handler emergency lowering

When using emergency lowering, make sure that nobody is present in the danger zone. If a second person is used to lower the load handler via the emergency lowering device, this person must consult with the driver. Both people must be in a safe area to avoid danger.
The truck may only be started again once the error has been localised and rectified.

During emergency lowering make sure the load handler has not got stuck in the rack.

- Open the rear electronic panel (door).
- Slowly open the drain valve (58) using the Allen switch.
- The load handler lowers.



3 Servicing and inspection

Thorough and expert servicing is one of the most important requirements for the safe operation of the industrial truck. Failure to perform regular servicing can lead to truck failure and poses a potential hazard to personnel and equipment.

⚠ The application conditions of an industrial truck considerably affect the wear levels of the service components.
We recommend an application analysis carried out on site by a Jungheinrich customer adviser to establish specific maintenance intervals in order to restrict damage caused by wear.
The service intervals stated are based on single shift operation under normal operating conditions. They must be reduced accordingly if the truck is to be used in conditions of extreme dust, temperature fluctuations or multiple shifts.

The following maintenance checklist states the tasks and intervals after which they should be carried out. Maintenance intervals are defined as:

W	=	Every	50	service hours, at least weekly
A	=	Every	500	operating hours
B	=	Every	1000	operating hours, or at least annually
C	=	Every	2000	operating hours, or at least annually

➔ W service intervals are to be performed by the customer.