Travelling in all directions with electronically controlled all-wheel steering

Onboard computer to display and operate main functions

**MULTI-PILOT** control lever

3-phase AC technology for travelling, lifting and steering

**Energy reclamation during braking** and lowering (patented regenerative lowering)

Hydraulic fork adjustment for different load widths (optional)



### **ETV Q20/ETV Q25**

### Electric multi-directional reach truck (2000, 2500 kg)

Multi-directional reach trucks are utilised wherever long loads are transported in narrow aisles and need to be lifted to high lift heights. Due to electric all-wheel steering, loads up to 8m in length can be transported and stored, maximising space in the warehouse.

Seven travel programs are available for this purpose: from improved normal operation and turning on the spot to sideways and parallel travel. In the travel mode "improved normal operation", the already small turning radius is further reduced by up to 34% through simultaneous load wheel steering. The ETV Q is thus superior to any conventional 4-way stacker.

Steering change-over from 180° to 360° provides the choice between minimum turning radius and fast travel direction change.

The onboard computer combines a number of functions in one operating display. Multi-occupied function keys and a colour display allow the operator full control and access options to travel modes or performance parameters.

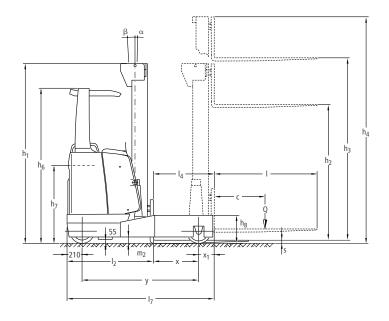
As well as excellent productivity is outstanding cost effectiveness:

- Increased travel and lift performance for more pallet throughput.
- Long operating times through energy reclamation during braking and lowering the load (patented).
- Smaller aisle width requirement due to tried and tested reach mast principle.
- Significantly reduced mast vibrations due to patented mast forward reach cushioning system.

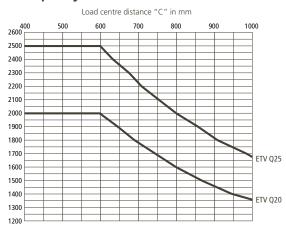
An extensive options catalogue and many battery variants from 420 to 930 Ah ensure the trucks suitability for any application

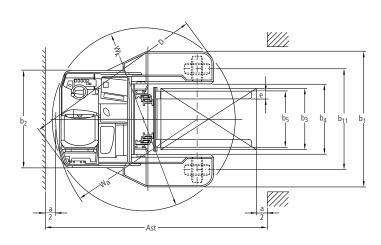


# **ETV Q20/ETV Q25**



### Capacity





Mast table ETV Q20/ETV Q25										
Designation	Closed mast height h <sub>1</sub> mm	Lift height h₃ mm	Free lift h <sub>2</sub> mm	Extended mast height h <sub>4</sub> mm	Mast tilt forward/backward $\alpha^{\circ}/\beta^{\circ}$	Fork tilt* forward/ backward $\alpha^{\circ}/\beta^{\circ}$				
Three-stage DZ*	2050	4250	1320	4996	1/5	-				
	2200	4700	1470	5446	1/5	_				
	2300	5000	1570	5746	1/5	-				
	2400	5300	1670	6046	1/5	_				
	2500	5600	1770	6346	1/3	-				
	2700	6200	1970	6946	1/3	_				
	2900	6800	2170	7546	0.5/2	-				
	3100	7400	2370	8146	0.5/2	2/5				
	3300	8000	2570	8746	0.5/1	2/5				
	3440	8420	2710	9166	0.5/1	2/5				
	3540	8720	2810	9466	-	2/5				
	3670	9110	2940	9856	_	2/5				
	3840	9620	3110	10366	-	2/5				
* ETV Q25: h <sub>3</sub> maximum t	o 8420 mm; fork tilt not av	ailable								

## Technical Data in line with VDI 2198 as at: 02/2007

	1.1	Manufacturer (abbreviation)		Jungheinrich	Jungheinrich	1.1
	1.2	Manufacturer's type designation		ETV Q20	ETV Q25	1.2
dentification	1.2	G = fork; E = integrated side shift		G	G	1.2
	1.3	Drive		electric	electric	1.3
TIC8	1.4	Operator type	- 11	seat	seat	1.4
nti	1.5	Load capacity/rated load	Q (t)	2	2.5	1.5
Ide	1.6	Load centre distance	c (mm)	600	600	1.6
	1.8	Load distance, centre of drive axle to fork	x (mm)	4381)	5031)	1.8
	1.8	Mast pushed forward	x <sub>1</sub> (mm)	226	226	1.8
	1.9	Wheelbase	y (mm)	1488	1643	1.9
S	2.1	Service weight incl. battery (see line 6.5)	kg	38001)	41001)	2.1
gu	2.3	Axle loading, unladen front/rear	kg	2220/1580	2490/1610	2.3
Weights	2.4	Axle loading, fork advanced, laden front/re	ar kg	550/5250	570/6030	2.4
	2.5	Axle loading, fork retracted, laden front/rea	ar kg	1960/3840	2320/4280	2.5
Wheels, Chassis	3.1	Tyres		Vulkollan®	Vulkollan®	3.1
	3.2	, ,		343 x 140	343 x 140	3.2
ای	3.3	Tyre size, rear		343 x 140	343 x 140	3.3
eel	3.5	Wheels, number front rear (x = driven whee	els)	1x/2	1x/2	3.5
\$	3.7	Tread, rear	b <sub>11</sub> (mm)	1380	1380	3.7
	4.1	Tilt of mast/fork carriage forward/backwar	d α/β (°)	1/5²)	1/5²)	4.1
	4.2	Closed mast height	h <sub>1</sub> (mm)	2400	2400	4.2
	4.3	Free lift	h <sub>2</sub> (mm)	1670	1670	4.3
	4.4	Lift	h <sub>3</sub> (mm)	5300	5300	4.4
	4.5	Height, mast extended	h <sub>4</sub> (mm)	6046	6046	4.5
	4.7	Height of overhead guard (cabin)	h <sub>6</sub> (mm)	2190	2190	4.7
	4.8	Seat height/stand height	h <sub>7</sub> (mm)	1010	1010	4.8
	4.10		h <sub>8</sub> (mm)	442	442	4.10
	4.19		I <sub>1</sub> (mm)	2060 1)	21501)	4.19
Basic Dimensions		Length to face of forks	l <sub>2</sub> (mm)	12601)	13501)	4.20
	4.21	-	<sub>1</sub> /b <sub>2</sub> (mm)	1720/1186	1720/1186	4.2
E E			s/e/I (mm)	50 x 140 x 1150	50×140×1150	4.22
2		Fork carriage ISO 2328, class/type A, B	,	2/B	2/B	4.23
Basic		24 Fork-carriage width b <sub>3</sub> (mm)		800	800	4.24
		Distance between fork-arms	b <sub>5</sub> (mm)	356/737	356/737	4.2
		Distance between wheel arms/loading surface		900	900	4.20
		Reach distance	I <sub>4</sub> (mm)	664¹)	7291)	4.2
		Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	95	95	4.3
		Aisle width for pallets 1000x1200 crossways	_	2763/25036)	2871/25896)	4.3
	4.34			2802/27036)	2896/27896)	4.3
	7.54	Truck diagonal	D (mm)	2277	2405	7.5
	1 35	Turning radius	Wa (mm)	1741³)	18923)	4.3!
	4.37	Length across wheel arms	I <sub>7</sub> (mm)	1902	2057	4.3
Performance Data	5.1	Travel speed, laden/unladen	km/h	11.5/11.55)	11.5/11.55)	5.1
	5.2	Lift speed, laden/unladen	m/s	0.28/0.52²)	0.23/0.37 <sup>2</sup> )	5.2
	5.3	Lowering speed, laden/unladen	m/s	0.5/0.5 <sup>2</sup> )	0.5/0.5 <sup>2</sup> )	5.3
9	5.4	Reaching speed, laden/unladen	m/s	0.12/0.124)	0.12/0.124)	5.4
9	5.7		%	7/11	6/11	5.7
		Gradeability, laden/unladen  Max. gradeability, laden/unladen	%			5.8
eLi	5.8 5.9	,,		10/15 4.6/4.3	10/15 5.0/4.4	5.9
۵		Acceleration time, laden/unladen Service brake	S			5.10
			kW	mechanic/hydraulic 6	mechanic/hydraulic	6.1
Electric engine	6.1	Drive motor rating $S_2$ 60 min Lift motor rating at $S_3$ 15 %	kW	12	6 12	6.2
	6.3	Battery acc. to DIN 43531/35/36 A, B, C, r		43531 B		6.3
נ	6.4		V/Ah		43531 B	6.4
Electri		Battery voltage, nominal capacity K <sub>5</sub>		48/4201)	48/5601)	
	6.5	Battery weight	kg	7461)	9371)	6.5
_	0.4	Battery dimensions I/w/h	mm	1035/353/7841)	1035/443/7841)	
_		Type of drive control		MOSFET control	MOSFET control	8.1
	8.1		bar	180	180	8.2
	8.2	Operating pressure for attachments			22	0.0
Otners		Oil volume for attachments  Sound level at the driver's ear according to DIN 12:	I/min	32 70	32 70	8.3 8.4

This specification sheet according to VDI regulation 2198 only provides technical values for the standard truck. Non-standard tyres, different masts, additional equipment, etc. could produce other values. Right reserved for technical changes and improvements.

#### **Ergonomic cockpit**

The operator cab provides ideal working conditions for excellent performance and support for the operator.

- Comfort seat with adjustment options for every operator (sitting position/backrest/body weight).
- Various storage facilities.
- Important operating functions are accessible without reaching round.
- Generous space.
- 3-phase AC steering on all three wheels with switch-over facility from 180° to
- Pedals arranged as in a motor car.

#### **MULTI-PILOT** control lever

A conveniently positioned lever for controlling all hydraulic functions as well as travel direction and horn.

- All operating functions are within view and are clearly accessed with one func-
- Maximum productivity due to simultaneous operation of two hydraulic functions (e.g. lifting and reaching).
- Only supplementary attachments are operated with the additional lever (optional).
- Sensitive operation of hydraulics (e.g. lifting and lowering) through proportional valve control.



Ergonomic cockpit

#### Onboard computer

The onboard computer combines many functions in one operating display that ensure economic efficiency and reliability during daily operations.

- Large colour screen (TFT display).
- Choice of 7 different travel modes.
- Travel direction display and speedometer.
- Simple fault diagnosis can be carried out in the service mode.
- PIN access authorisation with user administration (optional).
- Height selection for faster stacking at high lift heights (optional).
- Control monitor for video camera (optional).

#### 3-phase AC technology

Powerful 3-phase AC technology for travel, lift and steering drives provide a number of advantages compared with traditional direct current motors.

- Powerful acceleration.
- Fast reversing without delay.
- High availability due to maintenancefree motors without carbon brushes.
- Longer operating times due to energy reclamation on reducing travel speed load lowering.
- 2-year warranty on all 3-phase AC mo-



MULTI-PILOT and onboard computer



Space-saving transport of long loads

#### Performance-efficient mast

Jungheinrich masts guarantee maximum safety and storage utilisation to high lift

- Excellent visibility towards the load.
- Patented mast forward reach cushioning.
- Lowest closed mast heights at high lift heights.
- Extremely long service life due to colddrawn mast profiles.
- Energy feed-back with patented regenerative lowering.
- High residual capacities up to high lift heights.
- Lift heights up to 9620 mm.

Jungheinrich UK Ltd.

Head Office:

Sherbourne House · Sherbourne Drive Tilbrook · Milton Keynes MK7 8HX

Phone 01908 363100 Fax 01908 363180 Jungheinrich AG ISO 9001, ISO 14001 Certification of Quality and Environment Management. Jungheinrich trucks conform to the European Safety Requirements



