

**Travel in any direction through electronically controlled all-wheel steering**

**Precise operation with the ergonomic SOLO-PILOT control handle**

**3-phase AC technology for the travel, lift and steering systems**

**Jungheinrich® Curve Control for optimum stability**



## ETV Q20/ETV Q25

### Electric multi-directional, moving mast reach trucks (4,400-5,500 lbs.)

Jungheinrich® multi-directional reach trucks can be used for efficient stacking and retrieval at high lift heights and for long loads that need to be transported in narrow aisles. With electric all-wheel steering, these trucks can transport loads up to 26.2 feet long, maximizing space in the warehouse.

A true multi-directional reach truck, the ETV Q series truck has five travel programs available, ranging from modified standard travel to rotational travel and all-wheel parallel travel. The enhanced normal travel program further reduces the already small turning radius by steering the load wheels simultaneously with the drive tire. Other advantages offered by

the travel programs include 360° steering, minimum turning radius and rapid direction change. The ETV Q is clearly superior to any conventional 4-way reach truck.

Uncomplicated and intuitive handling with ergonomically arranged displays and controls provide ideal working conditions for high performance and ease of operation.

Additional assistance systems also increase productivity:

- Jungheinrich Curve Control reduces the maximum travel speed when cornering, depending on the steer angle.

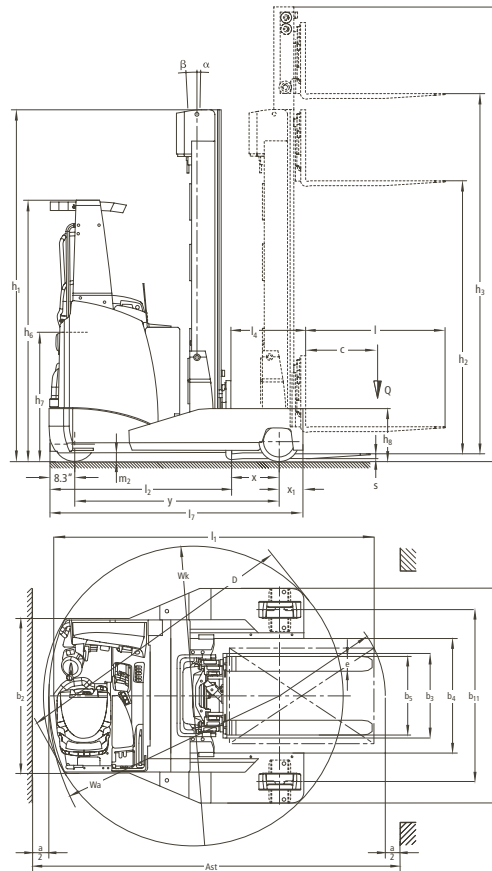
- Load weight display allows weights to be checked at the press of a button.
- Mast reach cushioning reduces mast sway during stacking and retrieval operations, thereby increasing throughput.

In addition to excellent performance, the trucks offer outstanding efficiency:

- Greater travel and lift performance for more pallet turnover.
- Energy recovery during braking and optimal mast lowering help provide increased uptime.



# ETV Q20/ETV Q25



Mast Table ETV Q20/ETV Q25

Designation	Overall Lowered Height (OAL) $h_1$		Maximum Fork Lift Height (MFH) $h_3$		Free Lift $h_2$		Overall Extended Height $h_4$		Mast Tilt forward / backward degree	Fork / Carriage Tilt forward / backward degree
	in	mm	in	mm	in	mm	in	mm		
Triplex mast	81	2,050	167	4,250	52	1,320	197	4,996	1 / 5	—
	87	2,200	185	4,700	58	1,470	215	5,446	1 / 5	—
	91	2,300	196	5,000	62	1,570	227	5,746	1 / 5	—
	95	2,400	208	5,300	66	1,670	238	6,046	1 / 5	—
	98	2,480	218	5,560	69	1,750	249	6,306	1 / 3	—
	99	2,500	220	5,600	70	1,770	250	6,346	1 / 3	—
	103	2,600	232	5,900	74	1,870	262	6,646	1 / 3	—
	105	2,650	238	6,050	76	1,920	268	6,796	1 / 3	—
	107	2,700	244	6,200	78	1,970	274	6,946	1 / 3	2 / 5
	111	2,800	255	6,500	81	2,070	286	7,246	0.5 / 2	—
	115	2,900	267	6,800	85	2,170	298	7,546	0.5 / 2	2 / 5
	117	2,950	273	6,950	87	2,220	303	7,696	0.5 / 2	2 / 5
	119	3,000	279	7,100	89	2,270	309	7,846	0.5 / 2	—
	122	3,100	291	7,400	93	2,370	321	8,146	0.5 / 2	2 / 5
	130	3,300	315	8,000	101	2,570	345	8,746	0.5 / 1	2 / 5
	136	3,440	331	8,420	107	2,710	361	9,166	0.5 / 1	2 / 5
	140	3,540	343	8,720	111	2,810	373	9,466	0.5 / 1	2 / 5
	145	3,670	358	9,110	116	2,940	388	9,856	—	2 / 5
	152	3,840	378	9,620	122	3,110	409	10,366	—	2 / 5
	156	3,950	391	9,950	127	3,220	422	10,696	—	2 / 5
159	4,040	402	10,220	130	3,310	432	10,966	—	2 / 5	
163	4,140	414	10,520	134	3,410	444	11,266	—	2 / 5	
166	4,200	421	10,700	137	3,470	451	11,446	—	2 / 5	

# Technical Data

as of: 1/2011

Characteristics	1.1		Jungheinrich				Jungheinrich				1.1	
	1.2		ETV Q20				ETV Q25				1.2	
Weights	1.4		sit-down moving mast				sit-down moving mast				1.4	
	1.5	Load capacity / rated load at load center	Q	lbs	kg	4,400	2,000	5,500	2,500	1.5		
1.6	Load center	c	in	mm	24.0	600	24.0	600	1.6			
1.8	Load distance (center line of load wheel to fork face)	x	in	mm	15.0	380	19.8	503	1.8			
	Load distance - extended	x <sub>1</sub>	in	mm	9.1	230	9.1	230				
1.9	Wheelbase	y	in	mm	60.2	1,528	66.3	1,683	1.9			
2.1	Truck weight including battery (see line 6.5) <sup>1)</sup>		lbs	kg	8,950	4,060	9,150	4,150	2.1			
2.3	Axle loading, unloaded drive / load		lbs	kg	5,090 / 3,860	2,310 / 1,750	5,490 / 3,660	2,490 / 1,660	2.3			
2.4	Axle loading, extended, loaded drive / load		lbs	kg	1,480 / 11,870	670 / 5,390	1,320 / 13,330	600 / 6,050	2.4			
2.5	Axle loading, retracted, loaded drive / load		lbs	kg	4,280 / 9,070	1,940 / 4,120	4,980 / 9,670	2,260 / 4,390	2.5			
Wheels, Chassis	3.1		Vulkollan®				Vulkollan®				3.1	
	3.2	Tire size, drive	in	mm	13.5 x 5.5	343 x 140	13.5 x 5.5	343 x 140	3.2			
3.3	Tire size, load		in	mm	13.5 x 5.5	343 x 140	13.5 x 5.5	343 x 140	3.3			
3.5	Wheels, number, drive / load		1 / 2				1 / 2				3.5	
3.7	Tread width, (load wheel)	b <sub>11</sub>	in	mm	55.9	1,420	55.9	1,420	3.7			
Basic Dimensions	4.1	Mast / fork carriage tilt forward / backward <sup>5)</sup>	degree		2° / 5°		2° / 5°		4.1			
	4.2	Overall lowered height (OAL) <sup>5)</sup>	h <sub>1</sub>	in	mm	166	4,200	166	4,200	4.2		
	4.3	Free lift <sup>5)</sup>	h <sub>2</sub>	in	mm	137	3,470	137	3,470	4.3		
	4.4	Maximum fork height (MFH) <sup>5)</sup>	h <sub>3</sub>	in	mm	421	10,700	421	10,700	4.4		
	4.5	Overall extended height (OAE) <sup>5)</sup>	h <sub>4</sub>	in	mm	451	11,446	451	11,446	4.5		
	4.7	Height of overhead guard (top)	h <sub>6</sub>	in	mm	84.6	2,150	84.6	2,150	4.7		
	4.8	Step height	h <sub>7</sub>	in	mm	20.5	520	20.5	520	4.8		
	4.10	Height of baselegs	h <sub>8</sub>	in	mm	17.4	442	17.4	442	4.10		
	4.19	Overall length (including forks) <sup>1)</sup>	l <sub>1</sub>	in	mm	95.8	2,433	99.1	2,518	4.19		
	4.20	Length to face of forks <sup>1)</sup>	l <sub>2</sub>	in	mm	50.5	1,283	53.9	1,368	4.20		
	4.21	Overall width, baseleg / chassis	b <sub>1</sub> /b <sub>2</sub>	in	mm	69.3 / 50.0	1,760 / 1,270	69.3 / 50.0	1,760 / 1,270	4.21		
	4.22	Fork dimensions, thick / width	s/e	in	mm	2.0 / 5.5	50 / 140	2.0 / 5.5	50 / 140	4.22		
		Fork lengths, minimum / maximum	l	in	mm	26.0 / 79.0	650 / 2,000	26.0 / 79.0	650 / 2,000			
	4.23	Fork carriage type		ISO Class 2 / B				ISO Class 2 / B				4.23
	4.24	Fork carriage width	b <sub>3</sub>	in	mm	31.5	800	31.5	800	4.24		
	4.25	Width across forks, minimum / maximum	b <sub>5</sub>	in	mm	14.0 / 29.0	356 / 737	14.0 / 29.0	356 / 737	4.25		
	4.26	Baseleg opening (BLO)	b <sub>4</sub>	in	mm	37.0	940	37.0	940	4.26		
	4.28	Reach travel <sup>1)</sup>	l <sub>4</sub>	in	mm	26.1	664	28.6	727	4.28		
	4.32	Ground clearance, center of wheelbase	m <sub>2</sub>	in	mm	3.7	95	3.7	95	4.32		
	4.33	Minimum aisle width, 90° stack - no clearance, 48" x 40" pallet <sup>1)</sup>	Ast	in	mm	110.3	2,802	113.3	2,878	4.33		
	Truck diagonal <sup>4)</sup>	D	in	mm	89.6	2,277	95.7	2,432				
4.35	Turning radius <sup>4)</sup>	Wa	in	mm	68.5	1,741	74.5	1,893	4.35			
4.37	Overall length	l <sub>7</sub>	in	mm	77.0	1,957	83.1	2,112	4.37			
Performance Data	5.1	Travel speed, loaded / unloaded <sup>2) 3)</sup>	mph	km/h	8.7 / 8.7	14 / 14	8.7 / 8.7	14 / 14	5.1			
	5.2	Lift speed, loaded / unloaded <sup>2)</sup>	ft/min	m/s	63 / 118	0.32 / 0.60	59 / 118	0.30 / 0.60	5.2			
	5.3	Lowering speed, loaded / unloaded <sup>2)</sup>	ft/min	m/s	98.4 / 98.4	0.5 / 0.5	98.4 / 98.4	0.5 / 0.5	5.3			
	5.4	Reaching speed, loaded / unloaded <sup>2)</sup>	ft/min	m/s	23.6 / 23.6	0.12 / 0.12	23.6 / 23.6	0.12 / 0.12	5.4			
	5.7	Gradeability, loaded / unloaded	%	7 / 11				6 / 11				5.7
	5.8	Maximum gradeability, loaded / unloaded	%	10 / 15				10 / 15				5.8
	5.9	Acceleration time, loaded / unloaded (10 meters)	sec	4.6 / 4.3				5.0 / 4.4				5.9
5.10	Service brake type (drive tire / load wheels)		electric / hydraulic				electric / hydraulic				5.10	
Motors	6.1	Drive motor rating S2 60 min.	HP	KW	9.2	6.9	9.2	6.9	6.1			
	6.2	Lift motor rating at S3 15%	HP	KW	13.4	10	13.4	10	6.2			
	6.4	Battery voltage, nominal capacity K5 <sup>1)</sup>	V/Ah	48 / 620				48 / 620				6.4
	6.5	Battery weight, minimum / maximum <sup>1)</sup>	lb	kg	1,967 / 2,326	892 / 1,055	1,967 / 2,326	892 / 1,055	6.5			
		Battery compartment dimensions l / w / h <sup>1)</sup>	in	mm	14.0 / 48.14 / 30.86	356 / 1,223 / 784	14.0 / 48.14 / 30.86	356 / 1,223 / 784				
Other Details	8.1	Type of drive control	Mosfet / AC				Mosfet / AC				8.1	
	8.2	Operating pressure for attachments	psi	bar	2,176	150	2,176	150	8.2			
	8.3	Oil volume for attachments	gal/min	l/min	5.3	20	5.3	20	8.3			
	8.4	Sound level at the driver's ear according to EN 12 053	dB(A)	70				70				8.4

- 1) values with minimum battery box length and 45" long forks. These values change with different battery box sizes.  
 2) maximum speed attainable, after break-in period, varies with truck, weight, rolling resistance, mast height, options and battery condition.  
 3) 6.8 mph (11 km/h) in fork direction, both loaded and unloaded.  
 4) turning radius for turning on the spot: 48.4 inches (1,230 mm).  
 5) with maximum height triplex mast.

# The Jungheinrich Advantage

## Powerful mast

Jungheinrich masts provide maximum space utilization at high lift heights.

- Excellent visibility towards the load.
- Lift heights over 35 feet.
- Extremely durable and reliable due to high-quality mast profiles.
- High residual capacities at maximum fork height.
- Patented mast reach cushioning (optional).
- Energy recovery through regenerative lowering (optional).



Jungheinrich mast design reduces sway at high lift heights.

## Jungheinrich's proprietary 3-phase AC technology

Powerful 3-phase AC technology for drive, lift and steering motors offers several advantages over traditional DC motors.

- Powerful acceleration.
- Quick plugging without hesitation.
- Greater operational availability due to maintenance-free motors without carbon brushes, brush springs or commutators.



Ergonomic operator compartment

- Longer operating times due to energy reclamation during braking and lowering of the load (optional).

## Ergonomic operator position

The operator position provides ideal working conditions for relaxed performance.

- Five buttons for easy travel program selection.
- Full-suspension comfort seat with adjustment features such as seating position, backrest and body weight, for all drivers.
- Numerous storage options.
- Generous overall space.
- Automotive style pedals.

## SOLO-PILOT control handle

The control lever allows the operator to activate all hydraulic functions, select the direction of travel and sound the horn from one location at his fingertips.

- All the controls are within the operator's reach and are clearly designated for a specific function.

- Maximum throughput efficiency due to simultaneous operation of two hydraulic functions (e.g. lifting and sideshifting).
- Additional hydraulic attachments are also controlled by the SOLO-PILOT.
- Precision operation through application of all functions.
- Comfortable posture with padded armrest.

## Easy-to-read operator display

- 360° steer direction indicator.
- Battery discharge indicator with residual battery run time display.
- A choice of three performance modes for individual adaptation to each application.
- Operation hour meter and date and time.
- Lift height indicator (optional).
- Load weight display (optional).



SOLO-PILOT

Built in compliance with ITSDF B56.1 design specifications\* for Type E industrial trucks with Type E battery.

\* In accordance to specifications in place at time of manufacture.



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Well worthwhile