

Powerful 3-phase AC technology built into the drive, lift and steering motors

State-of-the-art, multi-functional control handle allows operator to work three functions simultaneously

Rugged mast with excellent visibility and hydraulic cushioning for efficient load handling

Spacious operator compartment offers a combination of comfort, flexibility and function

Operator display offers information you need to know in an easy-to-read format



ETR 230 – 345p

36 Volt Electric Pantograph Reach Truck (3000-4500 lbs.)

The ETR 230 – ETR 345p single reach truck boasts strong performance – moving more pallets per hour and lowering overall cost of ownership – while keeping operators comfortable and productive.

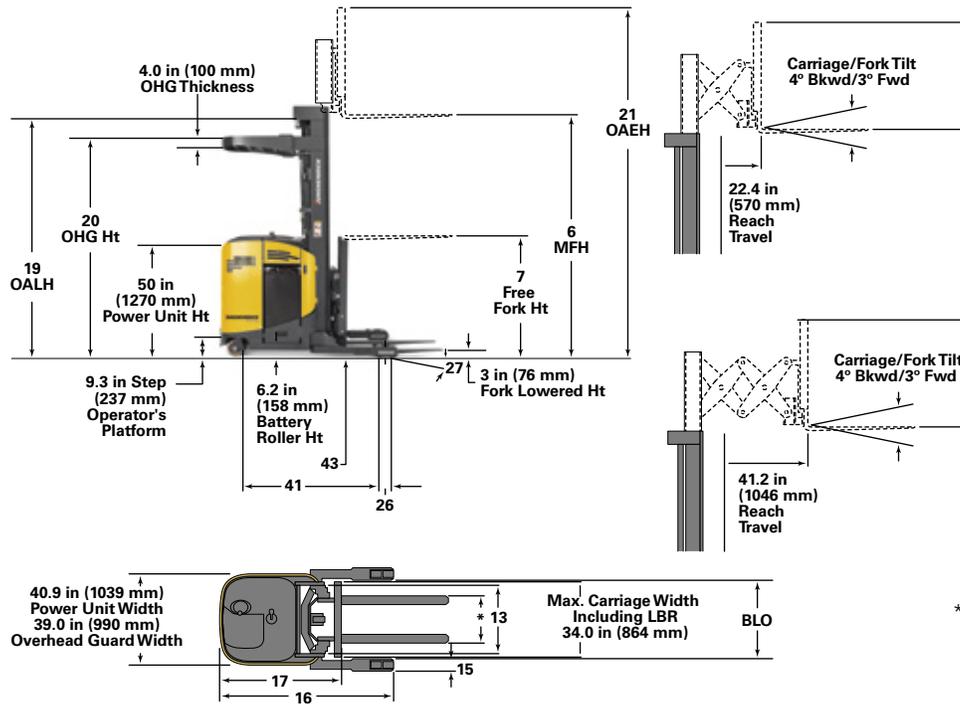
The key advantages:

- Higher performance due to 3-phase AC technology. AC motors require no carbon brushes, which eliminates the cost of replacements, reduces the need for servicing and allows for longer operating times.
- Greater productivity is also achieved through a space-saving design. This means the trucks can work in smaller aisles, leaving more space available for products.
- Operators are more relaxed and productive largely due to the ergonomic compartment that minimizes operator fatigue. From the low step height, to the steering wheel which does not encroach into the operator space and to the intuitive, multifunction control handle, the operator benefits from the excellent design. Productivity can be just as high in the last hour of the shift as in the first.
- The clear operator display shows all the information needed to perform the task at hand. In addition, it allows operators to select a number of pre-programmed drive and hydraulic settings to customize the truck for a particular application or operator skill level. All information is immediately displayed, contributing to the operator's overall awareness – increasing confidence and leading to a more productive work environment.
- The ETR series features a high-visibility, heavy-duty mast with durable rollers and mast rails designed to meet your most demanding applications. Combined with hydraulic cushioning in the pantograph and mast staging functions, operators can precisely and securely position loads at all lift heights.

The ETR 230 – 345p single reach truck delivers greater productivity in any application where space is at a premium. Its space-saving design means the truck can stack and retrieve goods efficiently in narrow aisles and at high lift heights. Operators can also customize the drive and hydraulic settings to suit the application and their level of experience.

**JUNGHEINRICH**

ETR 230 - 345p



* Fork spacing: See 10 and 11 for minimum and maximum widths.

Mast Table - 36 Volt Reach Trucks

Designation	Maximum Fork Height 2)		Overall Lowered Height 1)		Overall Extended Height 2) 4)		Free Lift 3) 5)		Overhead Guard Height 1)	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
Three Stage Mast (ETR230/ETR235)	170	4310	89	2265	218	5550	54	1370	88.75	2265
	198	5000	89	2265	246	6250	54	1370	88.75	2265
	210	5300	95	2415	258	6600	60	1520	94.75	2390
	240	6050	107	2720	288	7350	72	1825	94.75	2390
	258	6550	113	2880	306	7800	78	1980	94.75	2390
Three Stage Mast (ETR340)	270	6850	119	3030	318	8100	84	2130	94.75	2390
	300	7600	131	3330	348	8850	96	2435	94.75	2390
	318	8050	139	3540	366	9300	104	2640	94.75	2390
	198	5000	89	2265	246	6250	54	1370	88.75	2265
	210	5300	95	2415	258	6600	60	1520	94.75	2390
	240	6050	107	2720	288	7350	72	1825	94.75	2390
Three Stage Mast (ETR345)	258	6550	113	2880	306	7800	78	1980	94.75	2390
	270	6850	119	3030	318	8100	84	2130	94.75	2390
	300	7600	131	3330	348	8850	96	2435	94.75	2390
	318	8050	139	3540	366	9300	104	2640	94.75	2390
	330	8350	149	3790	378	9650	114	2895	94.75	2390
Three Stage Mast (ETR340p)	170	4310	89	2265	218	5550	54	1370	88.75	2265
	198	5000	89	2265	246	6250	54	1370	88.75	2265
	210	5300	95	2415	258	6600	60	1520	94.75	2390
	240	6050	107	2720	288	7350	72	1825	94.75	2390
	258	6550	113	2880	306	7800	78	1980	94.75	2390
	270	6850	119	3030	318	8100	84	2130	94.75	2390
	300	7600	131	3330	348	8850	96	2435	94.75	2390
Three Stage Mast (ETR345p)	318	8050	139	3540	366	9300	104	2640	94.75	2390
	330	8350	149	3790	378	9650	114	2895	94.75	2390
	366	9250	161	4090	414	10550	126	3200	94.75	2390
	400	10150	173	4400	448	11400	138	3505	94.75	2390
	425	10750	185	4700	473	12050	146	3705	94.75	2390
	240	6050	107	2720	288	7350	72	1825	94.75	2390
	258	6550	113	2880	306	7800	78	1980	94.75	2390
	270	6850	119	3030	318	8100	84	2130	94.75	2390

Technical Data

Characteristics	1		Model		ETR230		ETR235		ETR340		
	2		Type		Single		Single		Single		
	3		Power voltage		36		36		36		
	4	Capacity at rated load center	lb	kg	3,000	1,400	3,500	1,600	4,000	1,800	
	5	Capacity load center - distance from fork face	in	mm	24	600	24	600	24	600	
Dimensions	6	Maximum fork height with triplex mast	in	mm	270	6,850	270	6,850	318	8,050	
	7	Free fork height with maximum height triplex mast	in	mm	84.0	2,135	84.0	2,135	104	2,640	
	8	Fork width	in	mm	4.0	101	4.0	101	4.0	101	
	9	Fork thickness	in	mm	1.5	38.0	1.5	38.0	1.75	44.0	
	10	Fork spacing - out-to-out minimum	in	mm	10.0	254	10.0	254	10.0	254	
	11	Fork spacing - out-to-out maximum ²⁾	in	mm	31.5	800	31.5	800	31.5	800	
	12	Tilt angle - forward / backward	deg		3°/4.5°		3°/4.5°		3°/4.5°		
	13	Mast width ¹⁾	in	mm	31.0	776	31.0	776	31.0	776	
	14	Baseleg opening	in	mm	33-49	839-1,245	33-49	839-1,245	33-49	839-1,245	
	15	Baseleg width ³⁾	in	mm	4.75	120	5.5	140	5.5	140	
	16	Overall length	in	mm	75.9	1,930	78.0	1,985	78.0	1,985	
	17	Length to fork face	in	mm	53.8	1,370	55.8	1,420	55.8	1,420	
	18	Overall chassis width	in	mm	40.9	1,039	40.9	1,039	40.9	1,039	
	19	Overall lowered height with maximum triplex mast	in	mm	119	3,030	119	3,030	139	3,540	
	20	Overall lowered height to top of overhead guard	in	mm	94.0	2,390	94.0	2,390	94	2,390	
	21	Overall height with extended maximum triplex mast	in	mm	318	8,100	318	8,100	366	9,300	
	22	Step height	in	mm	9.3	237	9.3	237	9.3	237	
	23	Battery roller height	in	mm	6.2	158	6.2	158	6.2	158	
	24	Minimum outside turning radius	in	mm	70.8	1,800	72.8	1,850	72.8	1,850	
	25	Minimum aisle - 90° stack - zero clearance	in	mm	PLEASE CONSULT YOUR JUNGHEINRICH DEALER						
	26	Load wheel centerline ⁴⁾	in	mm	5.3	133	5.3	133	5.3	133	
	27	Grade clearance ⁵⁾	in	mm	13.7		13.2		13.2		
	Wheels/Chassis	28	Travel speed tractor first ⁷⁾	mph	km/h	7.5	12	7.5	12	7.3	11.6
		29	Travel speed forks first ⁷⁾	mph	km/h	7.0	11.2	7.0	11.2	6.5	10.4
		30	Lift speed loaded (triplex)	fpm	m/s	64.0	0.32	58.0	0.29	54.0	0.27
		31	Lift speed empty (triplex)	fpm	m/s	95.0	0.47	95.0	0.47	95.0	0.47
		32	Lower speed loaded (triplex)	fpm	m/s	110	0.55	110	0.55	110	0.55
33		Lower speed empty (triplex)	fpm	m/s	90.0	0.45	90.0	0.45	90.0	0.45	
34		Maximum fork height with rated load	in	mm	258	6,550	258	6,550	240	6,050	
35		Gradeability - loaded - maximum			7.0		9.0		9.0		
36		Gradeability - empty - maximum			9.0		9.0		9.0		
Weights	37	Truck weight - empty - with min weight battery	lb	kg	7,600	3,450	8,000	3,650	8,500	3,850	
	38	Battery weight - min	lb	kg	1,600	730	2,000	910	2,000	910	
	39	Battery weight - max	lb	kg	2,000	910	2,300	1,050	2,300	1,050	
Performance	40	Chassis type (stand/sit)			Stand		Stand		Stand		
	41	Wheelbase	in	mm	61.5	1,560	63.5	1,615	63.5	1,615	
	42	Ground clearance - center of wheelbase	in	mm	2.0	51.0	2.0	51.0	2.0	51.0	
	43	Ground clearance - lowest point at mast	in	mm	2.0	51.0	2.0	51.0	2.0	51.0	
	44	Tire size - steer	in	mm	13.5x5.5	343x140	13.5x5.5	343x140	13.5x5.5	343x140	
	45	Tire size - caster	in	mm	7.0x4.0	180x100	7.0x4.0	180x100	7.0x4.0	180x100	
	46	Tire size - load wheels	in	mm	5.0x2.88	127x73.0	5.0x3.62	127x92.0	5.0x3.62	127x92.0	
47	Brake type			Electric Disc		Electric Disc		Electric Disc			
Motors	48	Traction motor type			AC Induction		AC Induction		AC Induction		
	49	Traction motor output kW (60 min. rating)			6.8	5.1	6.8	5.1	6.8	5.1	
	50	Pump motor type			AC Induction		AC Induction		AC Induction		
	51	Pump motor output kW (5 minute rating)			14.7	11.0	14.7	11.0	14.7	11.0	
	52	Steer motor type			AC Induction		AC Induction		AC Induction		
	53	Steer motor output kW (60 min. rating)			0.5	0.4	0.5	0.4	0.5	0.4	
	54	Battery maximum capacity - A/H (6 hr. rating)			775		1,240		1,240		
	55	Battery compartment length ⁸⁾			14.25	361	16.25	412	16.25	412	
	56	Battery compartment width			38.58	980	38.58	980	38.58	980	
	57	Battery compartment height			31.65	804	31.65	804	31.65	804	

Characteristics	Model		ETR340p		ETR345		ETR345p		
	Type		Single		Single		Single		
	Power voltage		36		36		36		
Capacity at rated load center	lb	kg	4,000	1,800	4,500	2,000	4,500	2,000	
Capacity load center - distance from fork face	in	mm	24	600	24	600	24	600	
Dimensions	Maximum fork height with triplex mast	in	mm	318	8,050	330	8,350	425	10,750
	Free fork height with maximum height triplex mast	in	mm	104	2,640	114	2,900	146	3,700
	Fork width	in	mm	4.0	101	4.0	101	4.0	101
	Fork thickness	in	mm	1.75	44.0	1.75	44.0	1.75	44.0
	Fork spacing - out-to-out minimum	in	mm	10.0	254	10.0	254	10.0	254
	Fork spacing - out-to-out maximum ²⁾	in	mm	31.5	800	31.5	800	31.5	800
	Tilt angle - forward / backward	deg		3°/4.5°		3°/4.5°		3°/4.5°	
	Mast width ¹⁾	in	mm	31.0	776	32.0	807	32.0	807
	Baseleg opening	in	mm	33-49	839-1,245	33-49	839-1,245	33-49	839-1,245
	Baseleg width ³⁾	in	mm	5.5	140	5.5	140	5.5	140
	Overall length	in	mm	78.0	1,985	79.3	2,015	79.3	2,015
	Length to fork face	in	mm	55.8	1,420	57.1	1,455	57.1	1,455
	Overall chassis width	in	mm	40.9	1,039	40.9	1,039	40.9	1,039
	Overall lowered height with maximum triplex mast	in	mm	139	3,540	149	3,790	185	4,700
	Overall lowered height to top of overhead guard	in	mm	94.0	2,390	94.0	2,390	94.0	2,390
	Overall height with extended maximum triplex mast	in	mm	366	9,300	378	9,650	473	12,050
	Step height	in	mm	9.3	237	9.3	237	9.3	237
	Battery roller height	in	mm	6.2	158	6.2	158	6.2	158
	Minimum outside turning radius	in	mm	72.8	1,850	74.1	1,885	74.1	1,885
	Minimum aisle - 90° stack - zero clearance	PLEASE CONSULT YOUR JUNGHEINRICH DEALER							
Load wheel centerline ⁴⁾	in	mm	5.3	133	5.3	133	5.3	133	
Grade clearance ⁵⁾			13.2		12.9		12.9		
Wheels/Chassis	Travel speed tractor first ⁷⁾	mph	km/h	7.3	11.6	6.7	10.7	6.7	10.7
	Travel speed forks first ⁷⁾	mph	km/h	6.5	10.4	6.0	9.6	6.0	9.6
	Lift speed loaded (triplex)	fpm	m/s	86.0	0.43	50.0	0.25	80.0	0.4
	Lift speed empty (triplex)	fpm	m/s	124	0.62	95.0	0.47	114	0.57
	Lower speed loaded (triplex)	fpm	m/s	110	0.55	110	0.55	110	0.55
	Lower speed empty (triplex)	fpm	m/s	90.0	0.45	90.0	0.45	90.0	0.45
	Maximum fork height with rated load	in	mm	240	6,050	240	6,050	240	6,050
	Gradeability - loaded - maximum			7.0		9.0		9.0	
	Gradeability - empty - maximum			7.0		9.0		9.0	
Weights	Truck weight - empty - with min weight battery	lb	kg	8,600	3,900	9,100	4,150	10,900 ⁸⁾	4,925 ⁸⁾
	Battery weight - min	lb	kg	2,000	910	2,000	910	2,000	910
	Battery weight - max	lb	kg	2,300	1,050	2,300	1,050	2,300	1,050
Performance	Chassis type (stand/sit)			Stand		Stand		Stand	
	Wheelbase	in	mm	63.5	1,615	65.0	1,645	65.0	1,645
	Ground clearance - center of wheelbase	in	mm	2.0	51.0	2.0	51.0	2.0	51.0
	Ground clearance - lowest point at mast	in	mm	2.0	51.0	2.0	51.0	2.0	51.0
	Tire size - steer	in	mm	13.5x5.5	343x140	13.5x5.5	343x140	13.5x5.5	343x140
	Tire size - caster	in	mm	7.0x4.0	180x100	7.0x4.0	180x100	7.0x4.0	180x100
	Tire size - load wheels	in	mm	5.0x3.62	127x92.0	5.0x3.62	127x92.0	5x3.62.0	127x92.0
Brake type			Electric Disc		Electric Disc		Electric Disc		
Motors	Traction motor type			AC Induction		AC Induction		AC Induction	
	Traction motor output kW (60 min. rating)			6.8	5.1	6.8	5.1	6.8	5.1
	Pump motor type			AC Induction		AC Induction		AC Induction	
	Pump motor output kW (5 minute rating)			14.7/9.8	11.0/7.3	14.7	11.0	14.7/9.8	11.0/7.3
	Steer motor type			AC Induction		AC Induction		AC Induction	
	Steer motor output kW (60 min. rating)			0.5	0.4	0.5	0.4	0.5	0.4
	Battery maximum capacity - A/H (6 hr. rating)			775		775		775	
	Battery compartment length ⁶⁾			16.25	412	16.25	421	16.25	421
	Battery compartment width			38.58	980	38.58	980	38.58	980
Battery compartment height			31.65	804	31.65	804	31.65	804	

1) Add 3 inches (77 mm) at cross bar.

2) 27.5 inches (698 mm) for BLO less than 37 inches (889)

3) 5.9 inches (150 mm) on single reach chassis with MFH over 330 inches (8,350 mm).

4) 7.3 inches (186 mm) with mast MFH over 330 inches (8,350 mm).

5) Reduce grade clearance by 0.4% with 18.25 inches (463 mm) battery compartment length and 1% with 21.25 inches (539 mm) battery compartment length vs. 16.25 inches (412 mm) length.

6) 21.25 inches (539 mm) battery compartment length standard on chassis with MFH over 330 inches (8,350 mm).

7) Maximum speed attainable, after break-in period, varies with truck weight, rolling resistance, mast height, options and battery condition.

The Jungheinrich Advantage



The Jungheinrich Advantage



Overhead guard visibility

High visibility, heavy-duty mast

Jungheinrich masts provide maximum space utilization and visibility to high lift heights.

- The sturdy mast and narrow, angled overhead guard promote good visibility to the load even in high stacking applications.
- Hydraulic mast and pantograph cushioning in reach/retract and mast staging functions means loads are handled smoothly.
- Shim-adjustable canted mast rollers.
- Heavy, interlocking mast rails.
- Optional integral sideshifter helps improve capacity retention and maneuverability.
- Fork heights up to 330 inches on standard performance and 425 inches on high performance models.

Spacious and ergonomic operator compartment

The spacious operator compartment combines comfort and functionality to improve operator efficiency.

- Location of operator controls allows for a flexible side stance position within the compartment.
- Low-effort electric power steering for precise control with minimal effort.
- Display with multiple hour meters, travel speed, travel direction, load weight display, fault code read-out and battery state-of-charge gauge with lift monitoring.
- Intuitive multifunction control handle offers simultaneous control of drive, lift, lower and auxiliary hydraulic functions.
- Anti-fatigue floor mat and generous padding for knees, hips, back and armrest.
- Storage space for operator's equipment.



Multifunction control handle

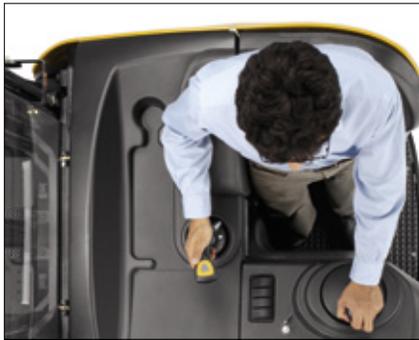
Multifunction control handle

The intuitive, multifunction control handle is centrally positioned for easy access to truck functions.

- Maximum efficiency through simultaneous operation of travel, lift and auxiliary function.
- Rounded palm rest helps reduce operator fatigue over long shifts.

Customized programming

Performance profiling allows you to customize drive and hydraulic settings based on the application, individual operator experience level and personal preferences. All display-based programming, performance requests and information queries can be performed with easily accessible buttons.



Operator compartment

Operator display

The easy-to-read control panel displays the information the operator needs to perform daily tasks.

- Travel speed.
- Travel direction.
- Battery state-of-charge.
- Load weight display.
- Text messaging of truck status and limiting conditions.
- Informational and warning icons.
- Language options.
- Optional features such as shelf height selector and tilt position assist are also available to assist the operator work more efficiently.

Powerful 3-phase AC technology

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

- Rapid acceleration and precise speed control.
- Smooth directional changes.
- Greater operational availability due to maintenance-free motors without carbon brushes.
- Longer operating times due to energy reclamation during braking.



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Well worthwhile