



Low level order pickers

ECE 310

Lift height: 750 mm / Load capacity: 1000 kg

The technical drawings illustrate the front and side views of a vehicle chassis, detailing its geometry and load-bearing capacity.

Front View (Left):

- Dimensions:** Total width is 1374 mm. Wheelbase is 1017 mm. Track width at the front is 438 mm. The distance from the centerline to the inner edge of the track is 175 mm. The total height of the chassis is 1383 mm. The height of the ground clearance is h_3 . The height of the chassis base is h_{13} .
- Load Distribution:** A vertical load Q is applied at a distance c from the rear axle. The horizontal distance from the front axle to the point of application of Q is l . The horizontal distance from the front axle to the center of gravity is x . The horizontal distance from the front axle to the rear axle is s . The horizontal distance from the front axle to the point of application of m_2 is y . The horizontal distance from the front axle to the point of application of Q is l_1 .
- Ground Clearance:** The ground clearance at the front is 50 mm. The ground clearance at the rear is 218 mm. The ground clearance at the middle is 380 mm (498 mm) and 415 mm (465 mm). The ground clearance at the rear is 253 mm and 55.5 mm.

Side View (Right):

- Dimensions:** Total width is 1374 mm. Wheelbase is 1017 mm. Track width at the front is 438 mm. The distance from the centerline to the inner edge of the track is 175 mm. The total height of the chassis is 1449 mm. The height of the ground clearance is h_3 . The height of the chassis base is h_{13} .
- Load Distribution:** A vertical load Q is applied at a distance c from the rear axle. The horizontal distance from the front axle to the point of application of Q is l . The horizontal distance from the front axle to the center of gravity is x . The horizontal distance from the front axle to the rear axle is s . The horizontal distance from the front axle to the point of application of m_2 is y . The horizontal distance from the front axle to the point of application of Q is l_1 .
- Ground Clearance:** The ground clearance at the front is 50 mm. The ground clearance at the rear is 218 mm. The ground clearance at the middle is 437 mm (555 mm), 429 mm, and 333 mm. The ground clearance at the rear is 55.5 mm.

Top View (Bottom):

- Dimensions:** The width of the chassis is b_1 , b_{10} , b_{11} , b_5 , and b_{12} . The length of the chassis is a . The distance from the front axle to the center of gravity is l_2 . The distance from the front axle to the rear axle is l_6 . The distance from the front axle to the point of application of W_a is Ast . The distance from the front axle to the point of application of e is $a/2$.
- Load Distribution:** A vertical load W_a is applied at a distance e from the front axle. The horizontal distance from the front axle to the point of application of W_a is l_2 . The horizontal distance from the front axle to the point of application of e is l_6 . The horizontal distance from the front axle to the point of application of W_a is Ast . The horizontal distance from the front axle to the point of application of e is $a/2$.

VDI table

Characteristic	1.1	Manufacturer (abbreviated description)		Jungheinrich	
	1.2	Manufacturer's type designation		ECE 310	
	1.3	Drive		Electric	
	1.4	Operation		Order pickers	
	1.5	Load capacity/load	Q kg	1000	
	1.6	Load centre distance	c mm	600	
	1.8	Load distance, centre of drive axle to fork	x mm	821	
	1.9	Wheelbase	y mm	1925	2075
Weights	2.1.1	Service weight (incl. battery)	kg	1084	1274
	2.2	Axle load laden front/rear	kg	839 / 1245	869 / 1405
	2.3	Axle load unladen front/rear	kg	772 / 311	862 / 411
Wheels/suspension system	3.1	Tyres		Polyurethane (PU)	
	3.2	Tyre size, front		Ø 230 x 78	
	3.3	Tyre size, rear		Ø 75 x 95	
	3.4	Additional wheels		Ø 180 x 65	
	3.5	Wheels, number front/back (x=driven)		1+1x/2	
	3.6	Tread width, front	b10 mm	481	
	3.7	Tread width, rear	b11 mm	339	
	3.7.1	2. Tread width, rear	mm	379	
Basic dimensions	4.4	Lift (h3)	h3 mm	750	
	4.9	Height of tiller handle in drive position min./max.	h14 mm	1374 / 1418	
	4.14	Stand height, elevated	h12 mm	-	1002
	4.15	Height, lowered	h13 mm	90	
	4.19	total length	l1 mm	2471	2621
	4.20	Length including fork shank	l2 mm	1321	1471
	4.21.1	total width	b1 mm	810	
	4.22	Fork dimensions	s/e/l mm	56 x 185 x 1150	
	4.25	Width across forks	b5 mm	560	
	4.32	Ground clearance centre of wheelbase	m2 mm	30	
	4.34.2	Aisle width (pallet 800x1200 length)	Ast mm	2721	2871
	4.35	Turning radius	Wa mm	2142	2292
Performance data	5.1	Travel speed laden/unladen (Efficiency drivePLUS)	km/h	11.5 / 12.5 11.5 / 14	11 / 12.5 11 / 14
	5.2	Lift speed laden/unladen	m/s	0.17 / 0.33	
	5.3	Lowering speed laden/unladen	m/s	0.19 / 0.19	
	5.8	Max. gradeability laden/unladen (Efficiency drivePLUS)	%	6 / 15 6 / 15	
	5.10	Service brake		generative	

E-motor/Electronics	6.1	Drive motor, performance S2 60 min (Efficiency drivePLUS)	kW	2.8 3.2	
	6.2	Lift motor, performance with S3	kW	1.5	
	6.4	Battery voltage/nominal capacity	V / Ah	24 / 465	
	6.5	Battery weight	kg	370	
	6.6.1	Energy consumption according to EN cycle (Efficiency PLUS)	kWh/h	0.4 0.47	
	6.6.2	CO2 equivalent as per EN 16796 (Efficiency PLUS)	kg/h	0.2 0.3	
	6.7	Throughput (Efficiency PLUS)	t/h	65 68	64 67
	6.8.1	Energy consumption with max. throughput (Efficiency PLUS)	kWh/h	1.27 1.47	1.28 1.47
Other	8.1	Type of drive control		AC	
	10.5	Steering version		electric	
	10.7	Sound level as per EN12053, operator's ear	dB (A)	62	
- This data sheet according to VDI guideline 2198 only states the technical values of the standard truck. Different tyres, other masts, additional equipment etc. may result in different values.					

Values for L battery compartment; fork length 1,150 mm.

- VDI no. 1.9: with XL or XL (ERE) battery compartment: y + 118 mm; with extended stand-on platform: y + 50 mm.
- VDI no. 4.14: ECE HP: h12 see diagram, dimension 840 mm + 162 mm = 1,002 mm.
- VDI no. 4.19: with XL or XL (ERE) battery compartment: l1 + 118 mm; with extended stand-on platform: l1 + 50 mm.
- VDI no. 4.20: with XL or XL (ERE) battery compartment: l2 + 118 mm; with extended stand-on platform: l2 + 50 mm.
- VDI no. 4.34.2: with XL or XL (ERE) battery compartment: aisle width + 118 mm; with extended stand-on platform: aisle width + 50 mm; diagonal as per VDI: aisle width + 94 mm.
- VDI no. 4.35: with XL or XL (ERE) battery compartment: Wa + 118 mm; with extended stand-on platform: Wa + 50 mm.
- VDI no. 6.2: with S3 10%.
- VDI no. 6.4: with XL battery compartment: 24 V / 620 Ah.
- VDI no. 6.5: with XL battery compartment: 460 kg.