

Electric Counterbalance Trucks

MOVING YOU FURTHER





Your satisfaction is **our priority!**

Hyundai introduces a new line of 9-series battery forklift trucks. The newly designed 4 wheel counterbalance trucks provide every operator comfortable driving, increased productivity and easy maintenance.





Compact forklift with proven AC technology

Maximum performance Spacious operator's cab Fingertip controlled mini levers available (optional) Weight indicator (optional) Safety system that prevents over loading (optional) Battery side loading system available Curve control system



High Efficiency & **Optimal Performance**





Finger tip control levers (Optional)

Fingertip control levers allow more precise control and fatigue-free working. The ergonomically designed armrest can be adjusted up, down, forward and backward for various operator's body type.



Advanced drive and lift performance with proven durability and low maintenance

The enclosed drive and pump motor with AC technology combine power, high maintenance intervals and excellent durability. The brushless AC motors offer improved efficiency and reduce maintenance cost. Efficient, smooth running and compact design provide you with enhanced performance and highest productivity.

16/18/20B-9





Auto fork leveling system (Optional)

In order to improve productivity the auto fork leveling system will automatically stop the tilt movement when the mast is in a straight position.





Max. Gradeability (loaded)

Max. Travel Speed (unloaded)

Model	%	Model	Km / h
16B-9	29.5	16B-9	17
18B-9	27.5	18B-9	17
20B-9	24.5	20B-9	17

Anti roll back system, travel speed and gradeability

Anti Roll-back system offers protection against the machine rolling back on a ramp in combination with exceptional ramp start capabilities.

Advanced Safety





Excellent visibility for safe operation

Optimized lift cylinder arrangement provides operator with wider visibility.





Panoramic mirror

The panoramic mirror expands the driver's view when backing up.

Strong overhead guard

Exceeding CEE and ANSI regulations, the overhead guard offers great protection combined with excellent all-round visibility.

The safely designed driver's space makes your operating more comfortable.





Fork safety features

When the forks are being lowered, a down-control valve maintains the controlled speed. The down-safety valve prevents forks from dropping down in case of sudden damage of hydraulic line.

OPSS (Operator Presence Sensing System)

When the operator is not in the seat all mast and drive movements are impossible.



Safety lamps & rear reflectors

Halogen headlights and rear LED combination lights offer the driver visibility in all circumstances. Rear reflectors mounted on the counterweight enhance safety for the driver and the application.

Optimised Ergonomics & **Fast and Easy Maintenance**





Spacious operator cabin

The B-9 is designed as a small, compact design, yet the operator compartment has ample room for virtually any operator.





Low entrance height

In order to get in and out of the cabine in an easy and safe way the height of the entrance step is only 400 mm high.

Optimized pedal position and floor mat

The position of accelerator and throttle have been optimized through human engineering.



Adjustable steering wheel

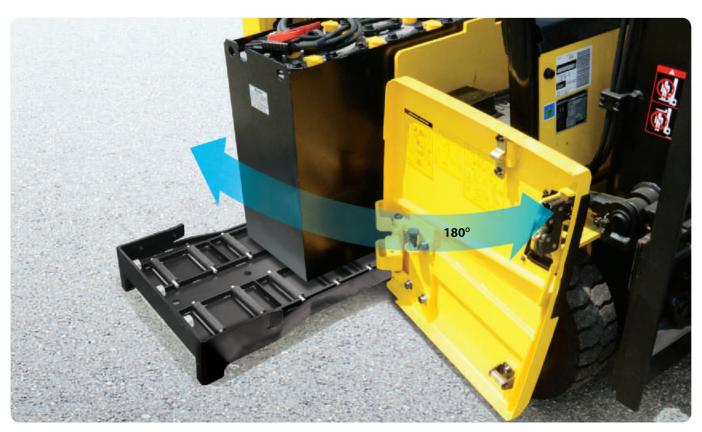
To achieve a comfortable drive position, the angle of the steering column can easily be adjusted through a lever on the right-hand side of the steering column.



Grammer seat (Option)

An easily adjustable suspension seat, based on a human engineering design, provides greater comfort reducing operator fatigue. An ideal arrangement of components ensures easy access and convenience for maintenance.





Easy battery replacement

The battery compartment is equipped with a side battery removal assembly for easy removal and replacement.





Advanced LCD Monitor

This tool is available in 11 different languages. The LCD monitor with 3.5 inch graphic smart display allows the operator to easily and efficiently control the machine. The monitor provides information about speed & accelerator level, steer angle & travel direction, battery discharge indicator, hour meter & working mode. The optional load indicator displays the load weight in the monitor. The operator can select various performance modes to meet all working conditions. **H** (High) mode

N (Normal) mode

E (Economic) mode

Turtle mode

Brake oil reservoir with level sensor

The enhanced brake oil reservoir, located in the upper left dash, is equipped with an electronic level sensor and easily visible through the monitor.



New 9 Series

Mast Specification (16/18B-9)

Mast Type		Maximum Fork Height (mm)	Overall Height (Lowered) (mm)		Free Lift Height (mm)			Tilt Angle	Load Capacity without side shift		Load Capacity with side shift		Truck Weight		
					With Load Backrest		Without Load Backrest		Forward / Backward (deg)	at (500mm LC) (kg)		at (500mm LC) (kg)		(Unloaded) (kg)	
		16/18B-9	16B-9	18B-9	16B-9	18B-9	16B-9	18B-9	16/18B-9	16B-9	18B-9	16B-9	18B-9	16B-9	18B-9
	V250	2,525	1,720	1,729	35	35	35	35	5/7	1,600	1,800	1,530	1,730	3,080	3,228
	V270	2,725	1,820	1,829	35	35	35	35	5/7	1,600	1,800	1,530	1,730	3,092	3,240
	V300	3,025	1,970	1,979	35	35	35	35	5/7	1,600	1,800	1,530	1,730	3,112	3,260
	*V330	3,325	2,120	2,129	35	35	35	35	5/7	1,600	1,800	1,530	1,730	3,132	3,280
2- Stage limited	V350	3,525	2,220	2,229	35	35	35	35	5/7	1,600	1,800	1,530	1,730	3,145	3,293
free lift	V370	3,725	2,320	2,329	35	35	35	35	5/7	1,600	1,800	1,530	1,730	3,158	3,306
	V400	4,025	2,470	2,479	35	35	35	35	5/7	1,550	1,800	1,490	1,730	3,183	3,330
	V450	4,525	2,820	2,829	35	35	35	35	5/5	1,500	1,750	1,440	1,680	3,250	3,398
	V500	5,025	3,070	3,079	35	35	35	35	5/5	1,400	1,650	1,340	1,590	3,284	3,431
	V550	5,525	3,320	3,329	35	35	35	35	5/5	1,350	1,600	1,300	1,540	3,304	3,451
2- Stage	VF300	3,025	1,970	1,979	972	981	1,534	1,543	5/5	1,600	1,800	1,530	1,730	3,151	3,298
full	VF330	3,325	2,120	2,129	1,122	1,131	1,684	1,693	5/5	1,600	1,800	1,530	1,730	3,172	3,320
free lift	VF350	3,525	2,220	2,229	1,222	1,231	1,784	1,793	5/5	1,600	1,800	1,530	1,730	3,187	3,335
	TF/TS370	3,735	1,770	1,779	772	781	1,260	1,269	5/5	1,550	1,800	1,490	1,730	3,228	3,375
	TF/TS400	4,035	1,870	1,879	872	881	1,360	1,369	5/5	1,500	1,750	1,440	1,690	3,248	3,395
	TF/TS430	4,335	1,970	1,979	972	981	1,460	1,469	5/5	1,475	1,725	1,420	1,660	3,267	3,415
	TF/TS450	4,535	2,070	2,079	1,072	1,081	1,560	1,569	5/5	1,450	1,700	1,390	1,640	3,287	3,434
3 - Stage full	TF/TS470	4,735	2,120	2,129	1,122	1,131	1,610	1,619	5/5	1,425	1,650	1,370	1,590	3,297	3,445
free lift	TF/TS500	5,035	2,220	2,229	1,222	1,231	1,710	1,719	5/5	1,400	1,600	1,340	1,540	3,317	3,465
	TF/TS550	5,535	2,420	2,429	1,422	1,431	1,910	1,919	5/5	1,325	1,500	1,300	1,450	3,357	3,504
	TF/TS600	6,035	2,620	2,629	1,622	1,631	2,110	2,119	5/5	1,250	1,350	1,200	1,300	3,420	3,568
	TF/TS650	6,535	2,820	2,829	1,822	1,831	2,310	2,319	5/5	1,050	1,300	1,000	1,250	3,465	3,613
	TF/TS700	7,035	3,020	3,029	2,022	2,031	2,510	2,519	5/5	900	1,050	860	1,010	3,504	3,651

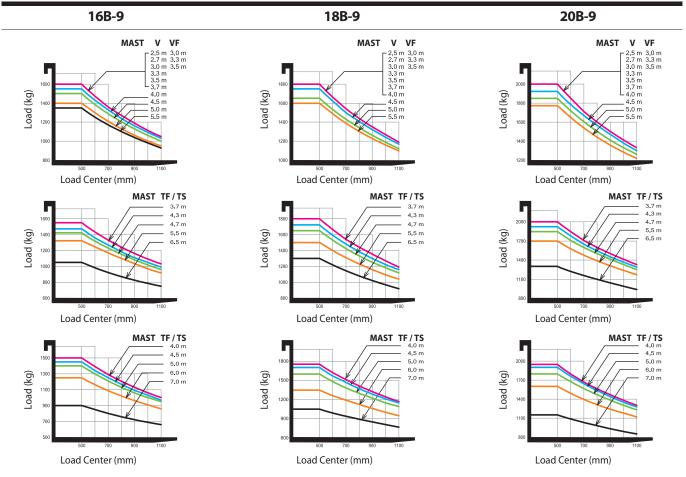
Mast Specification (20B-9)

Mast Type		Maximum	Overall Height	Free Lift Height (mm)		Tilt Angle	Load Capacity without side shift	Load Capacity with side shift	Truck Weight
		Fork Height (mm)	(Lowered) (mm)	With Load Backrest	Without Load Backrest	Forward / Backward (deg)	at (500mm LC) (kg)	at (500mm LC) (kg)	(Unloaded) (kg)
		20B-9	20B-9	20B-9	20B-9	20B-9	20B-9	20B-9	20B-9
	V250	2,530	1,729	40	40	5/7	2,000	1,930	3,428
	V270	2,730	1,829	40	40	5/7	2,000	1,930	3,440
	V300	3,030	1,979	40	40	5/7	2,000	1,930	3,460
	* V330	3,330	2,129	40	40	5/7	2,000	1,930	3,480
2- Stage limited	V350	3,530	2,229	40	40	5/7	2,000	1,930	3,493
free lift	V370	3,730	2,329	40	40	5/7	2,000	1,920	3,506
	V400	4,030	2,479	40	40	5/7	2,000	1,920	3,531
	V450	4,530	2,829	40	40	5/5	1,925	1,860	3,598
	V500	5,030	3,079	40	40	5/5	1,850	1,790	3,632
	V550	5,530	3,329	40	40	5/5	1,775	1,710	3,652
2- Stage	VF300	3,030	1,979	986	1,548	5/5	2,000	1,930	3,499
full free lift	VF330	3,330	2,129	1,136	1,698	5/5	2,000	1,930	3,520
	VF350	3,530	2,229	1,236	1,798	5/5	2,000	1,930	3,535
	TF/TS370	3,740	1,779	786	1,274	5/5	2,000	1,930	3,576
	TF/TS400	4,040	1,879	886	1,374	5/5	1,950	1,880	3,596
	TF/TS430	4,340	1,979	986	1,474	5/5	1,925	1,860	3,615
	TF/TS450	4,540	2,079	1,086	1,574	5/5	1,900	1,840	3,635
3 - Stage	TF/TS470	4,740	2,129	1,136	1,624	5/5	1,850	1,790	3,645
full free lift	TF/TS500	5,040	2,229	1,236	1,724	5/5	1,800	1,750	3,665
	TF/TS550	5,540	2,429	1,436	1,924	5/5	1,700	1,640	3,705
	TF/TS600	6,040	2,629	1,636	2,124	5/5	1,600	1,540	3,768
	TF/TS650	6,540	2,829	1,836	2,324	5/5	1,300	1,250	3,813
	TF/TS700	7,040	3,029	2,036	2,524	5/5	1,150	1,100	3,852

* TS-Mast : Wide Visible 3-Stage Full Free Lift Mast with 2 Free Lift Cylinders.

* Standard





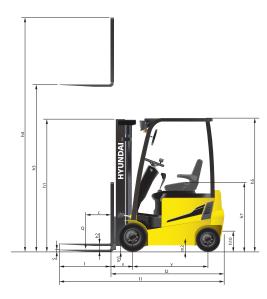
Load Capacity

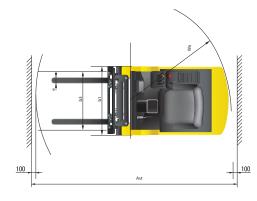
Optional Items

- Fork (mm)
 - 16 / 18B-9: 35x100x750; 850; 900 (Standard); 1050; 1200; 1350; 1500
- **20B-9 :** 40x100x900 (Standard); 950; 1000; 1050; 1150; 1200; 1350; 1500; 1600 • Integral side shift
- Tire : Solid (Standard) / Non-marking
- Wide tire [16B-9 : Front tire (200 / 50-10)]
- Seat : Grammer (standard); KAB

- M.C.V: 4-spool (standard), 2-spool, 3-spool
- Auto Fork Leveling
- Beacon Lamp
- Load Indicator
- Work Lamp
- Cabin

Dimensions







Specifications

Identif	îcation				
1.1	Manufacturer			HYUNDAI	
1.2	Туре		16B-9	18B-9	20B-9
1.3	Drive: Electric, Diesel, LPG Gas		Electric	Electric	Electric
1.4	Type of operation: hand, pedestrian, standing, seated, o	order-picker	Seated	Seated	Seated
1.5	Load capacity (standard)	Q (kg)	1,600	1,800	2,000
1.6	Load center distance	c (mm)	500	500	500
1.8	Load distance, center of drive axle to forks	x (mm)	360	360	365
1.9	Wheelbase	y (mm)	1,355	1,440	1,440
Weigh	ts				
2.1	Service weight	kg	3,150	3,275	3,480
2.2	Axle loading, loaded front / rear	kg	4,200 / 550	4,478 / 597	4,850/630
2.3	Axle loading, unloaded front / rear	kg	1,585 / 1,565	1,603 / 1,672	1,650 / 1,830
Wheel	s, chassis				
3.1	Tires : solid rubber (V), superelastic (SE), pneumatic (P), p	oolyurethane (PE)	SE	SE	SE
3.2	Tires size, front (Ø x width)		18 x 7-8	200/50-10	200/50-10
3.3	Tires size, rear (Ø x width)		16 x 6-8	16 x 6-8	16 x 6-8
3.5	Wheels, number front rear (x = driven wheels)		2x/2	2x/2	2x/2
3.6	Track width, front	b10 (mm)	895	905	905
3.7	Track width, rear	b11 (mm)	880	880	880
Basic o	limensions				
4.1	Mast / fork carriage tilt forward / backward	degrees	5/7	5/7	5/7
4.2	Lowered mast height (standard)	h1 (mm)	2,120	2,129	2,129
4.3	Free lift	h2 (mm)	35	35	40
4.4	Lift height (standard)	h3 (mm)	3,325	3,325	3,330
4.5	Extended mast height (standard)	h4 (mm)	4,320	4,320	4,320
4.7	Overhead load guard (cab) height	h5 (mm)	2,065	2,065	2,065
4.8	Seat height / standing height	h7 (mm)	982	982	982
4.12	Coupling height	h10 (mm)	250	250	250
4.19	Overall length	l1 (mm)	2,935	3,020	3,030
4.20	Length to face of forks	l2 (mm)	2,035	2,120	2,130
4.21	Overall width	b1 (mm)	1,074	1,105	1,105
4.22	Fork dimensions (hook type) LxWxT	s/e/l(mm)	900 x 100 x 35	900 x 100 x 35	900 x 100 x 40
4.23	Fork carriage ISO 2328, class / type A,B		2A	2A	2A
4.24	Fork carriage width	b3 (mm)	1006	1006	1006
4.31	Ground clearance, loaded, under mast	m1 (mm)	85	94	94
4.32	Ground clearance, centre of wheelbase	m2 (mm)	90	90	100
4.33	Aisle width for pallets 1000 x 1200 crossways (L x W)	Ast (mm)	3,352	3,427	3,447
4.34	Aisle width for pallets 800 x 1200 lengthways (W x L)	Ast (mm)	3,495	3,575	3,595
4.35	Turning radius	Wa (mm)	1,710	1,795	1,810
Perfor	mance data				
5.1	Travel speed, unloaded	km/h	16/17	16/17	16/17
5.2	Lift speed, loaded / unloaded	mm/s	410/600	410/600	410/600
5.3	Lowering speed, loaded / unloaded	mm/s	500/450	500/450	500/450
5.6	Drawbar pull, loaded / unloaded S2 5min	N	15,102 / 14,759	15,190 / 14,710	14,367 / 14,043
5.8	Gradient performance, loaded / unloaded S2 5min	%	29.5	27.5	24.5
5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
E - Mo					
6.1	Drive motor rating S2 60 min	kW	4.7 x 2	4.7 x 2	4.7 x 2
6.2	Pump motor rating at S3 - 15 %	kW	14.0	14.0	14.0
6.4	Battery voltage, nominal capacity K5	V/Ah	48/510	48/585	48 / 585
6.5	Battery weight	kg	850	1,030	1,030
	Battery compartment dimensions L / W /H	mm	978 / 545 / 636	978/630/636	978/630/636
Other	details				
8.1	Type of drive control		AC	AC	AC

* Standard and optional equipment may vary per country. Contact your Hyundai dealer for more information.

*The photos may include attachments and optional equipment that are not available in your area.

* Materials and specifications are subject to change without advance notice.

* All imperial measurements rounded off to the nearest pound or inch.

PLEASE CONTACT	
www.hyundai.eu	EN - 2014.01 Rev 0

