

15/18/20BT-9

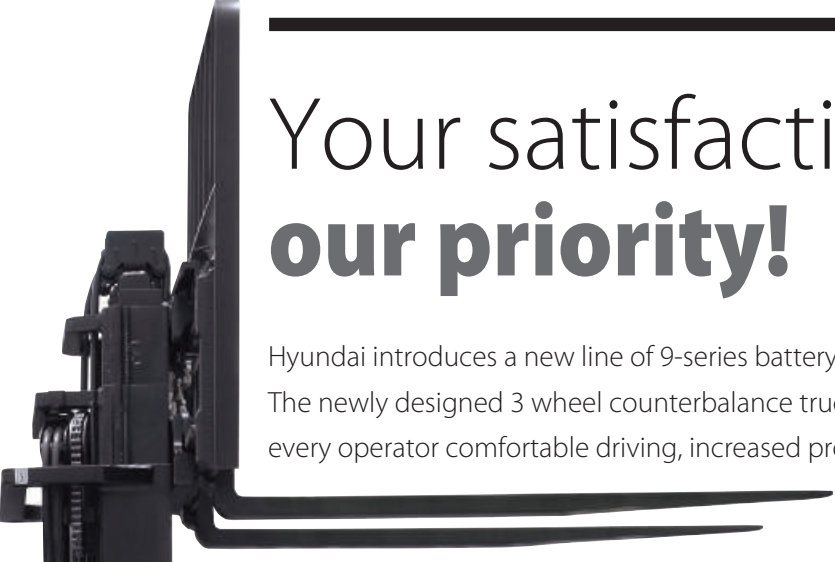
Electric Counterbalance Trucks

MOVING YOU FURTHER

HYUNDAI HEAVY INDUSTRIES



 **HYUNDAI**



Your satisfaction is **our priority!**

Hyundai introduces a new line of 9-series battery forklift trucks.

The newly designed 3 wheel counterbalance trucks with rear wheel drive 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



More efficient operating control levers

Electronic directional control and secondary horn are mounted to the hydraulic lift lever for quick and precise maneuvering.



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.

15/18/20BT-9



Curve control

Curve Control limits travel speed based on turning radius, reducing speed for a smooth, precise turning operation for the driver.



Driving Speed

Limit the speed

Designed for compact aisle width and turning radius

The 3-wheel design in combination with dual drive offers center pivot turning. This allows the driver to work in very confined spaces.



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)

Model	%
15BT-9	29.5
18BT-9	27.5
20BT-9	24.5

Max. Travel Speed (unloaded)

Model	Km / h
15BT-9	17
18BT-9	17
20BT-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.
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.

15/18/20BT-9

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



Optimized pedal position and floor mat

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



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 400mm high.



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.

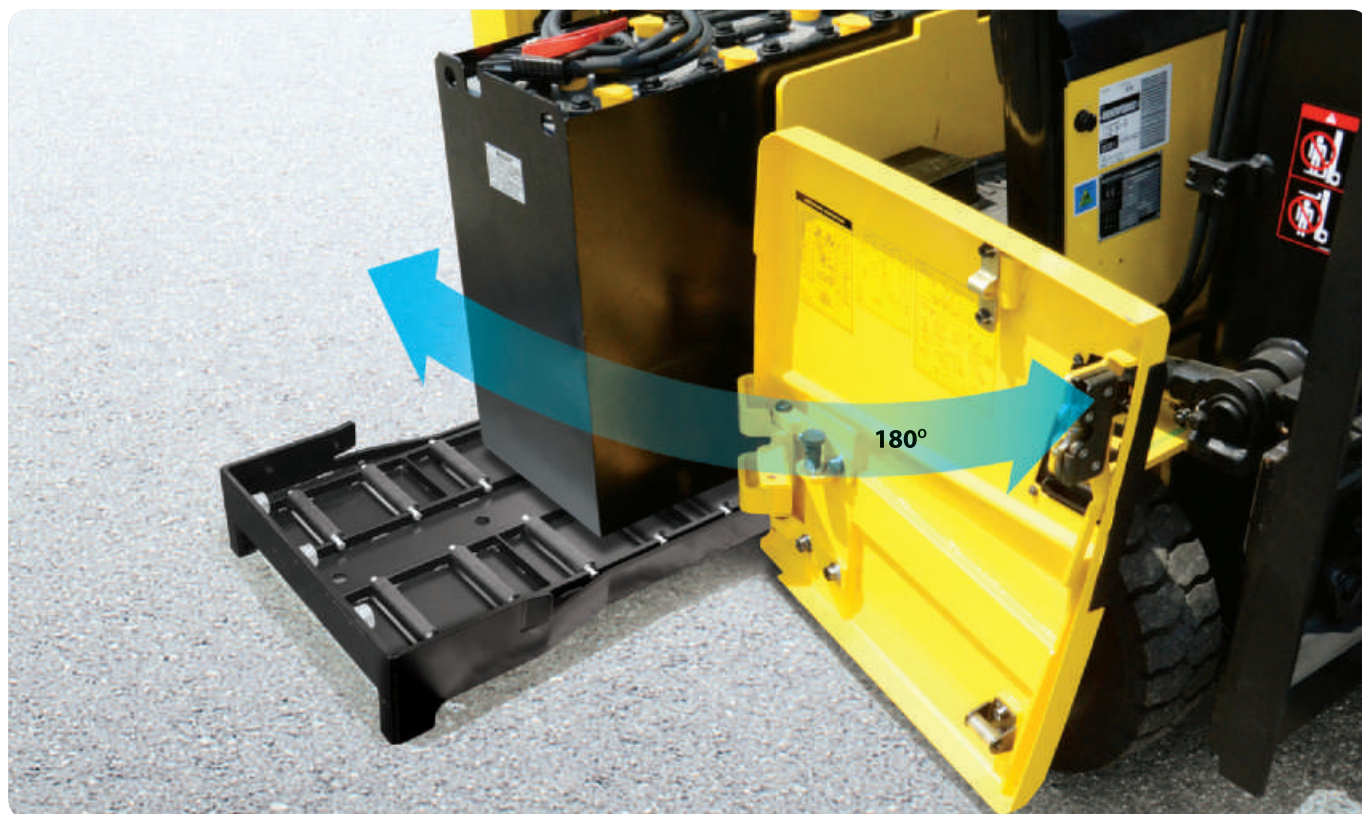


Grammer seat (Option)

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.

15/18/20BT-9



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 (maintain 7 km/h travel speed when lifting)

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 (15/18BT-9)

Mast Type		Maximum Fork Height (mm)	Overall Height (Lowered) (mm)	Free Lift Height (mm)		Tilt Angle Forward / Backward (deg)	Load Capacity without side shift at (500mm LC) (kg)		Load Capacity with side shift at (500mm LC) (kg)		Truck Weight (Unloaded) (kg)	
				With Load Backrest	Without Load Backrest							
				15/18BT-9	15/18BT-9		15BT-9	18BT-9	15BT-9	18BT-9	15BT-9	18BT-9
2- Stage Limited free lift	V250	2525	1720	35	35	5 / 7	1500	1800	1440	1730	2953	3239
	V270	2725	1820	35	35	5 / 7	1500	1800	1440	1730	2966	3252
	V300	3025	1970	35	35	5 / 7	1500	1800	1440	1730	2985	3271
	* V330	3325	2120	35	35	5 / 7	1500	1800	1440	1730	3006	3292
	V350	3525	2220	35	35	5 / 7	1500	1800	1440	1730	3019	3305
	V370	3725	2320	35	35	5 / 7	1500	1800	1440	1730	3031	3317
	V400	4025	2470	35	35	5 / 7	1450	1750	1400	1680	3056	3342
	V450	4525	2820	35	35	5 / 5	1400	1700	1400	1640	3123	3409
	V500	5025	3070	35	35	5 / 5	1350	1600	1340	1540	3157	3443
	V550	5525	3320	35	35	5 / 5	1300	1550	1250	1500	3177	3463
2- Stage full free lift	VF300	3025	1970	972	1460	5 / 5	1500	1800	1440	1730	3024	3310
	VF330	3325	2120	1122	1610	5 / 5	1500	1800	1440	1730	3045	3331
	VF350	3525	2220	1222	1710	5 / 5	1500	1800	1440	1730	3061	3347
3 - Stage full free lift	TF/TS370	3735	1770	772	1260	5 / 5	1475	1750	1420	1680	3101	3387
	TF/TS400	4035	1870	872	1360	5 / 5	1450	1700	1390	1630	3121	3407
	TF/TS430	4335	1970	972	1460	5 / 5	1400	1650	1340	1590	3141	3427
	TF/TS450	4535	2070	1072	1560	5 / 5	1375	1625	1320	1560	3160	3446
	TF/TS470	4735	2120	1122	1610	5 / 5	1350	1600	1300	1530	3171	3457
	TF/TS500	5035	2220	1222	1710	5 / 5	1300	1550	1250	1490	3191	3477
	TF/TS550	5535	2420	1422	1910	5 / 5	1250	1450	1200	1390	3230	3516
	TF/TS600	6035	2620	1622	2110	5 / 5	1175	1175	1130	1130	3294	3580
	TF/TS650	6535	2820	1822	2310	5 / 5	900	1050	850	1010	3338	3624
	TF/TS700	7035	3020	2022	2510	5 / 5	650	800	610	760	3377	3663

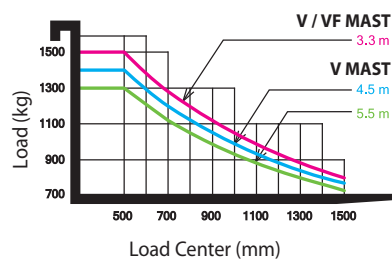
Mast Specification (20BT-9)

Mast Type		Maximum Fork Height (mm)	Overall Height (Lowered) (mm)	Free Lift Height (mm)		Tilt Angle Forward / Backward (deg)	Load Capacity without side shift at (500mm LC) (kg)	Load Capacity with side shift at (500mm LC) (kg)	Truck Weight (Unloaded) (kg)
				With Load Backrest	Without Load Backrest				
				20BT-9	20BT-9		20BT-9	20BT-9	20BT-9
2- Stage Limited free lift	V250	2530	1729	40	40	5 / 7	2000	1920	3418
	V270	2730	1829	40	40	5 / 7	2000	1920	3431
	V300	3030	1979	40	40	5 / 7	2000	1920	3450
	* V330	3330	2129	40	40	5 / 7	2000	1920	3471
	V350	3530	2229	40	40	5 / 7	2000	1920	3484
	V370	3730	2329	40	40	5 / 7	2000	1920	3496
	V400	4030	2479	40	40	5 / 7	1950	1880	3521
	V450	4530	2829	40	40	5 / 5	1850	1780	3588
	V500	5030	3079	40	40	5 / 5	1800	1730	3622
	V550	5530	3329	40	40	5 / 5	1700	1640	3642
2- Stage full free lift	VF300	3030	1979	986	1474	5 / 5	2000	1920	3489
	VF330	3330	2129	1136	1624	5 / 5	2000	1920	3510
	VF350	3530	2229	1236	1725	5 / 5	2000	1920	3526
3 - Stage full free lift	TF/TS370	3740	1779	786	1274	5 / 5	1950	1880	3566
	TF/TS400	4040	1879	886	1374	5 / 5	1900	1830	3586
	TF/TS430	4340	1979	986	1474	5 / 5	1850	1790	3606
	TF/TS450	4540	2079	1086	1574	5 / 5	1825	1770	3625
	TF/TS470	4740	2129	1136	1624	5 / 5	1800	1740	3636
	TF/TS500	5040	2229	1236	1724	5 / 5	1750	1690	3656
	TF/TS550	5540	2429	1436	1924	5 / 5	1700	1640	3695
	TF/TS600	6040	2629	1636	2124	5 / 5	1500	1500	3759
	TF/TS650	6540	2829	1836	2324	5 / 5	1300	1250	3803
	TF/TS700	7040	3029	2036	2524	5 / 5	1050	1010	3842

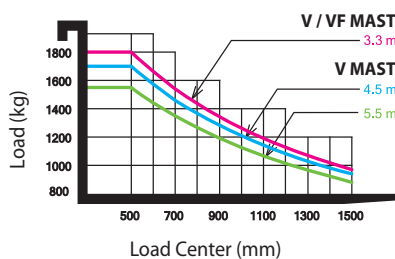
※ TS-Mast : Wide Visible 3-Stage Full Free Lift Mast with 2 Free Lift Cylinders.

Load Capacity

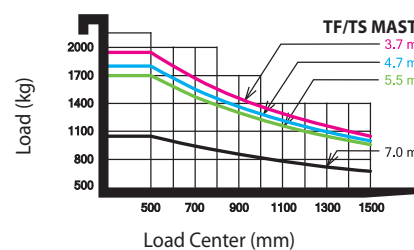
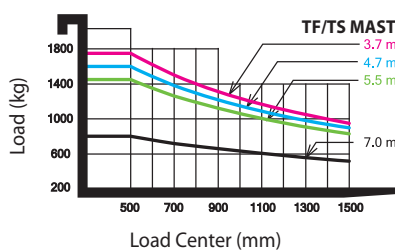
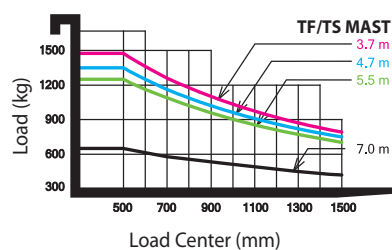
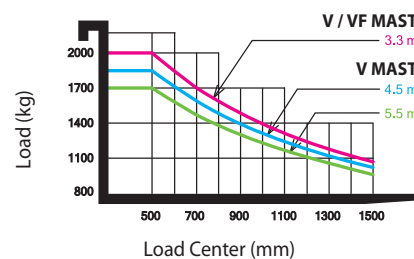
15BT-9



18BT-9



20BT-9



Optional Items

• Fork (mm)

15 / 18BT-9 : 35x100x750, 850, 900 (Standard), 1050, 1200, 1350, 1500

20BT-9 : 40x100x900 (Standard), 950, 1000, 1050, 1150, 1200, 1350, 1500, 1600

• Integral side shift (Standard)

• Tire : Solid (Standard) / Non-marking / Cushion tire /

Wide tire [15BT-9 : Front tire (200 / 50-10), 18/20BT-9 : Rear tire (15X5.5-9)]

• Seat : KAB Seat

• Finger Tip Control

• Basic cold storage

• M.C.V : 3-Spool (Standard), 2-Spool, 4-Spool

• Auto Fork Leveling (Standard)

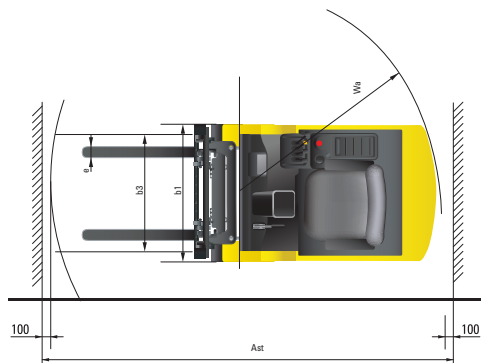
• Beacon Lamp

• Load Indicator

• Work Lamp

• Cabin

Dimensions



Specifications

Identification				
1.1	Manufacturer	HYUNDAI		
1.2	Type	15BT-9	18BT-9	20BT-9
1.3	Drive: Electric, Diesel, LPG Gas	Electric	Electric	Electric
1.4	Type of operation: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated
1.5	Load capacity (standard) Q (kg)	1,500	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)	1,335	1,420	1,420

Weights				
2.1	Service weight kg	3,125	3,365	3,500
2.2	Axle loading, loaded front / rear kg	4,127 / 498	4,600 / 565	4,900 / 600
2.3	Axle loading, unloaded front / rear kg	1,661 / 1,464	1,710 / 1,655	1,684 / 1,816

Wheels, chassis				
3.1	Tires : solid rubber (V), superelastic (SE), pneumatic (P), polyurethane (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)	15 x 4.5-8	15 x 4.5-8	15 x 4.5-8
3.5	Wheels, number front rear (x = driven wheels)	2 x / 2	2 x / 2	2 x / 2
3.6	Track width, front b10 (mm)	895	905	905
3.7	Track width, rear b11 (mm)	170	170	170

Basic dimensions				
4.1	Mast / fork carriage tilt forward / backward degrees	5 / 7	5 / 7	5 / 7
4.2	Lowered mast height (standard) h1 (mm)	1,970	1,979	1,979
4.3	Free lift h2 (mm)	35	35	40
4.4	Lift height (standard) h3 (mm)	3,300	3,300	3,300
4.5	Extended mast height (standard) h4 (mm)	4,020	4,020	4,020
4.7	Overhead load guard (cab) height h5 (mm)	2,065	2,065	2,065
4.8	Seat height / standing height h7 (mm)	927	927	927
4.12	Coupling height h10 (mm)	410	410	410
4.19	Overall length l1 (mm)	2,785	2,875	2,910
4.20	Length to face of forks l2 (mm)	1,885	1,975	2,010
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)	980	980	980
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)	3,226	3,316	3,351
4.34	Aisle width for pallets 800 x 1200 lengthways (W x L) Ast (mm)	3,350	3,440	3,475
4.35	Turning radius Wa (mm)	1,540	1,630	1,660

Performance 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 N	15,102 / 14,759	15,190 / 14,710	14,367 / 14,043
5.8	Gradient performance, loaded / unloaded %	29.5	27.5	24.5
5.10	Service brake	Hydraulic	Hydraulic	Hydraulic

E - Motor				
6.1	Drive motor rating S2 60 min (24V) kW	4.7x2	4.7x2	4.7x2
6.2	Pump motor rating at S3 - 15 % (24V) kW	14.0	14.0	14.0
6.4	Battery voltage, nominal capacity K5 (24V) V/Ah	48 / 510	48 / 585	48 / 585
6.5	Battery weight kg	710	835	835
	Battery compartment dimensions L / W / H mm	983 / 553 / 636	983 / 638 / 636	983 / 638 / 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



Hyundai Heavy Industries Europe N.V.

VOSSENDAAL 11, 2440 GEEL, BELGIUM TEL: (32) 14-56-2200 FAX: (32) 14-59-3405