

# 22/25/30/35BH-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 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**

**22/25/30/35BH-9**



# High Efficiency & Optimal Performance



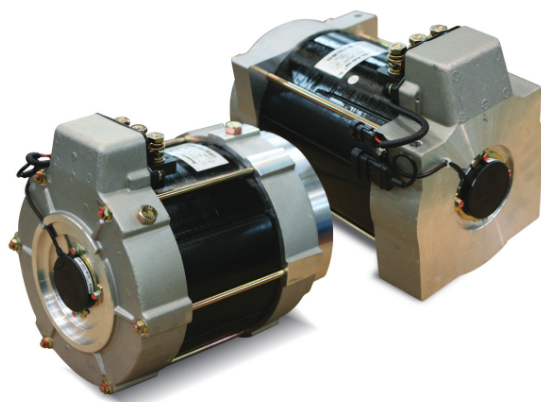
## More efficient operating control levers

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.

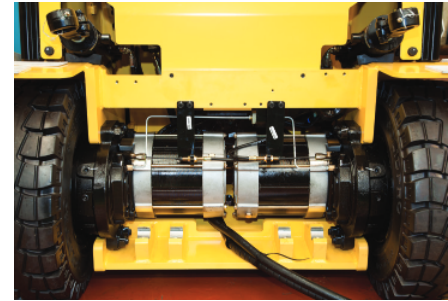
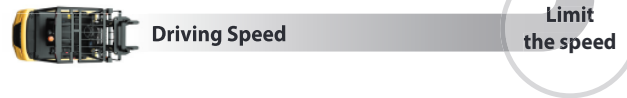


Efficient, smooth running and powerful performance make your work more productive.

## 22/25/30/35BH-9

### Curve control

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



### Dual drive system

Using a dual drive system will minimise aisle width and energy consumption. Plus, the drive units and AC motors intergrated in the front axle provide the operator with extremely improved gradient capacity.



### Auto fork leveling system

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	%
22BH-9	28
25BH-9	26
30BH-9	22
35BH-9	19

### Max. Travel Speed (unloaded)

Model	Km / h
22BH-9	19
25BH-9	19
30BH-9	19
35BH-9	19

### 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.



## **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.

**22/25/30/35BH-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 newly designed cabin was conceived for more space, a wider field of view and operator comfort.



## **Optimized pedal position and floor mat**

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



## **Large entrance step**

Wide and non-slip step offers convenience and safety when entering and exiting truck.



## **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**

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.

**22/25/30/35BH-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 12 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 (22/25/30BH-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			22/25/30BH-9	22BH-9	25BH-9	30BH-9	22BH-9	25BH-9	30BH-9	22BH-9	25BH-9	30BH-9
			22/25/30BH-9	22/25/30BH-9	22/25BH-9											
2-Stage Limited free lift	V300	3005	2012	115	115	115	6 / 10	2200	2500	3000	2200	2500	3000	4536	4691	5109
	* V330	3305	2162	115	115	115	6 / 10	2200	2500	3000	2200	2500	3000	4555	4710	5130
	V350	3505	2262	115	115	115	6 / 10	2200	2500	3000	2200	2500	3000	4572	4727	5148
	V370	3705	2412	115	115	115	6 / 10	2200	2500	3000	2200	2475	3000	4594	4749	5172
	V400	4005	2562	115	115	115	6 / 10	2200	2500	3000	2200	2425	3000	4616	4771	5196
	V430	4305	2712	115	115	115	6 / 6	2200	2450	3000	2200	2375	3000	4665	4820	5246
	V450	4505	2862	115	115	115	6 / 6	2200	2400	3000	2175	2325	2950	4695	4849	5277
	V470	4705	2962	115	115	115	6 / 6	2200	2360	3000	2125	2285	2875	4709	4864	5293
V500	5005	3112	115	115	115	6 / 6	2150	2350	2900	2075	2275	2775	4731	4886	5317	
2-Stage full free lift	VF295	2976	2012	832	1379	1317	6 / 6	2200	2500	3000	2200	2500	3000	4596	4751	5144
	VF325	3276	2162	982	1529	1467	6 / 6	2200	2500	3000	2200	2500	2950	4629	4784	5176
	VF345	3476	2262	1082	1629	1567	6 / 6	2200	2500	3000	2175	2475	2875	4665	4817	5209
3-Stage full free lift	TF370/TS370	3705	1812	632	1122	1117	6 / 6	2200	2500	3000	2200	2475	3000	4682	4837	5273
	TF400/TS400	4005	1912	732	1222	1217	6 / 6	2200	2500	3000	2200	2425	3000	4702	4857	5294
	TF430/TS430	4305	2012	832	1322	1317	6 / 6	2200	2450	3000	2200	2375	2950	4723	4878	5338
	TF450/TS450	4505	2112	932	1422	1417	6 / 6	2200	2400	3000	2175	2325	2875	4744	4899	5343
	TF470/TS470	4705	2162	982	1472	1467	6 / 6	2200	2350	2950	2125	2275	2825	4755	4910	5355
	TF500/TS500	5005	2262	1082	1572	1567	6 / 6	2150	2300	2900	2075	2225	2775	4780	4935	5380
	TF550/TS550	5505	2462	1282	1772	1767	6 / 6	2100	2200	2800	2025	2125	2675	4819	4974	5423
	TF600/TS600	6005	2662	1482	1972	1967	6 / 6	2000	2150	2700	1925	2075	2575	4856	5011	5465
	TF650/TS650	6505	2862	1682	2172	2167	3 / 3	1650	1800	2250	1575	1725	2125	4907	5062	5516
	TF700/TS700	7005	3062	1882	2372	2367	3 / 3	1200	1400	1850	1125	1325	1725	4946	5101	5555
4-Stage full free lift	QF610	6115	2147	967	1514	1452	3 / 3	1550	1650	1800	1475	1575	1675	5121	5276	5663
	QF660	6615	2347	1167	1714	1652	3 / 3	1450	1550	1700	1375	1475	1575	5181	5336	5723
	QF700	7015	2447	1267	1814	1752	3 / 3	1250	1300	1400	1175	1225	1275	5212	5366	5753
	QF745	7465	2597	1417	1964	1902	3 / 3	1150	1200	1250	1075	1125	1125	5257	5412	5799
	QF790	7915	2747	1567	2114	2052	3 / 3	700	750	750	625	675	625	5358	5513	5900

## Mast Specification (35BH-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				
			35BH-9	35BH-9				
2-Stage Limited free lift	V300	3005	2093	115	115	3500	3500	5582
	* V330	3305	2243	115	115	3500	3500	5605
	V350	3505	2343	115	115	3500	3500	5624
	V370	3705	2493	115	115	3500	3500	5648
	V400	4005	2643	115	115	3500	3430	5671
	V430	4305	2793	115	115	3500	3350	5722
	V450	4505	2943	115	115	3450	3300	5754
	V470	4705	3043	115	115	3400	3250	5770
V500	5005	3193	115	115	3300	3150	5793	
2-Stage full free lift	VF295	2976	2093	913	1377	3500	3500	5618
	VF325	3276	2243	1063	1527	3500	3430	5651
	VF345	3476	2343	1163	1627	3500	3350	5684
3-Stage full free lift	TF370/TS370	3705	1893	713	1177	3500	3430	5780
	TF400/TS400	4005	1993	813	1277	3500	3350	5804
	TF430/TS430	4305	2093	913	1377	3450	3300	5832
	TF450/TS450	4505	2193	1013	1477	3400	3250	5856
	TF470/TS470	4705	2243	1063	1527	3350	3200	5873
	TF500/TS500	5005	2343	1163	1627	3300	3150	5895
	TF550/TS550	5505	2543	1363	1827	3150	3000	5940
	TF600/TS600	6005	2743	1563	2027	3100	2950	5983
	TF650/TS650	6505	2943	1763	2227	2600	2450	6034
	TF700/TS700	7005	3143	1963	2427	2200	2050	6073
4-Stage full free lift	QF610	6115	2158	1017	1459	2500	2350	6607
	QF660	6615	2358	1217	1659	2400	2250	6667
	QF700	7015	2458	1317	1759	2100	1950	6697
	QF745	7465	2608	1467	1909	1950	1800	6743
	QF790	7915	2758	1617	2059	1450	1300	6843

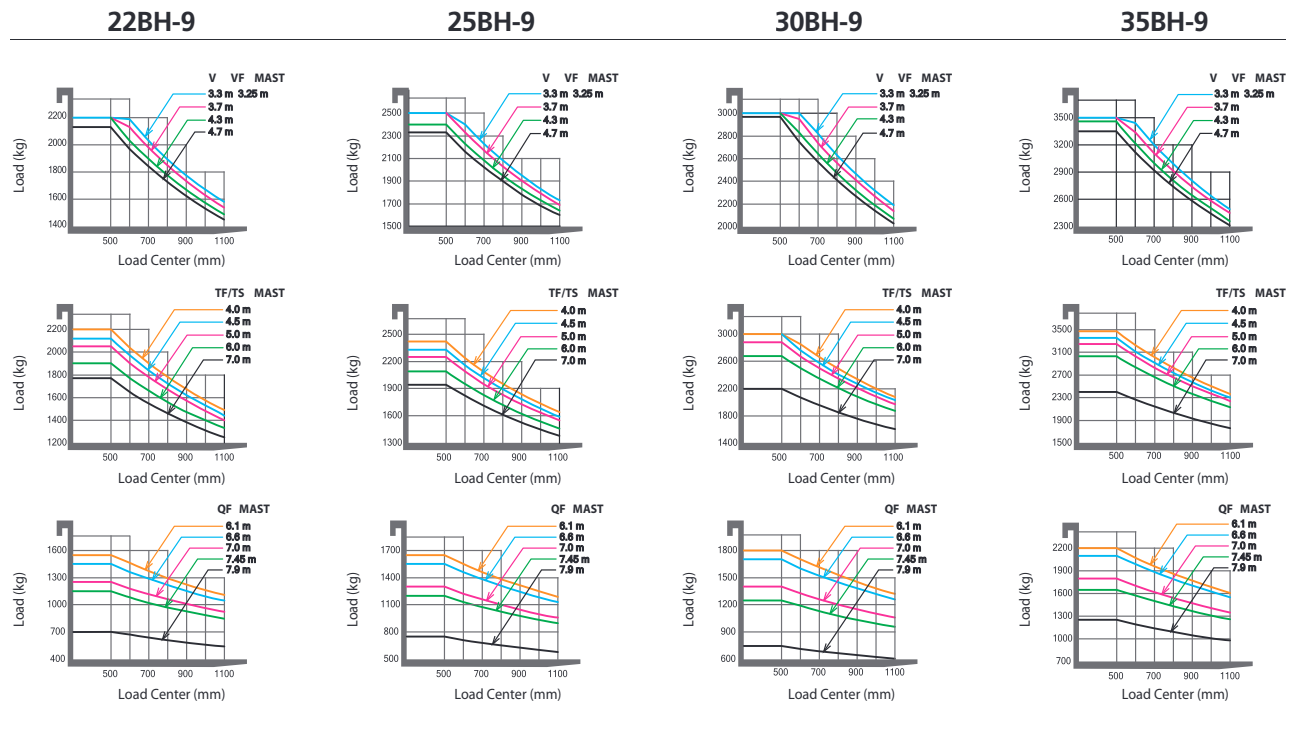
\* TS-Mast : Wide Visible 3-Stage Full Free Lift Mast with 2 Free Lift Cylinders.

\* Standard



## 22/25/30/35BH-9

### Load Capacity

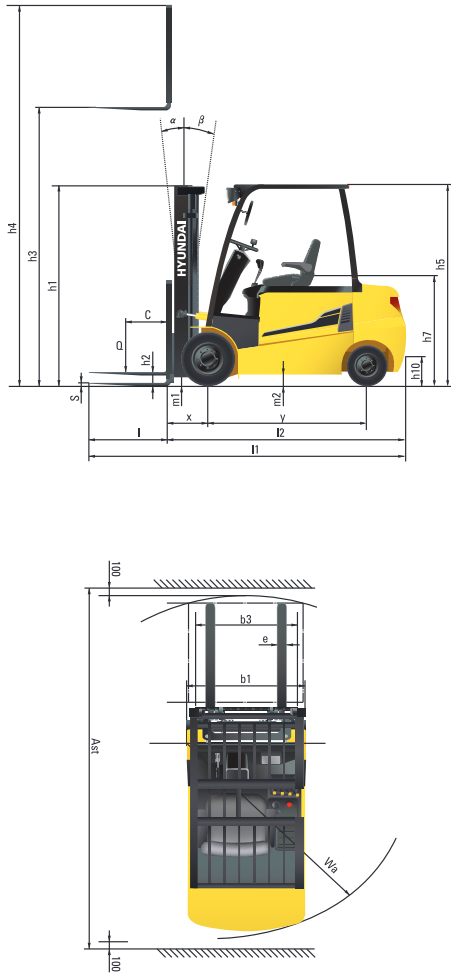


### Optional Items

- **Fork (mm)**  
**22/25BH-9** : 900, 1000, 1050, 1200 (Standard), 1350, 1500, 1650, 1800  
**30/35BH-9** : 900, 1050, 1150, 1200 (Standard), 1650, 1800, 1970, 2120, 2300, 2400
- **Integral side shift**
- **Tire** : Solid (Standard) / Pneumatic / Non-marking  
 Wide tire [22/25/30BH-9 : Front tire (23x10-12)]
- **Seat** : Grammer (standard), KAB optional
- **Finger Tip Control**

- **Cold storage** (for -30° cold working environments)
- **Basic cold storage**
- **M.C.V** : 2-Spool, 3-Spool, 4-Spool (Standard)
- **Auto Fork Leveling**
- **Beacon Lamp**
- **Load Indicator**
- **Work Lamp**
- **Cabin**

## Dimensions



## Specifications

### Identification

		HYUNDAI			
1.1	Manufacturer	HYUNDAI			
1.2	Type	22BH-9	25BH-9	30BH-9	35BH-9
1.3	Drive: Electric, Diesel, LPG Gas	electric	electric	electric	electric
1.4	Type of operation: hand, pedestrian, standing, seated, order-picker	seated	seated	seated	seated
1.5	Load capacity (standard) Q (kg)	2,200	2,500	3,000	3,500
1.6	Load center distance c (mm)	500	500	500	500
1.8	Load distance, center of drive axle to forks x (mm)	458	458	458	470
1.9	Wheelbase y (mm)	1,575	1,575	1,719	1,719

### Weights

2.1	Service weight	kg	4,555	4,710	5,130	5,605
2.2	Axle loading, loaded front / rear	kg	5,880 / 875	6,340 / 870	7,237 / 893	8,054 / 1,051
2.3	Axle loading, unloaded front / rear	kg	2,345 / 2,210	2,320 / 2,390	2,565 / 2,565	2,579 / 3,026

### Wheels, chassis

3.1	Tires: solid rubber (V), superelastic (SE), pneumatic (P), polyurethane (PE)	SE, P	SE, P	SE, P	SE, P	
3.2	Tires size, front (Ø x width)	23 x 9-10	23 x 9-10	23 x 9-10	23 x 10-12	
3.3	Tires size, rear (Ø x width)	18 x 7-8	18 x 7-8	18 x 7-8	18 x 7-8	
3.5	Wheels, number front rear (x = driven wheels)	2 x / 2	2 x / 2	2 x / 2	2 x / 2	
3.6	Track width, front	b10 (mm)	993	993	993	1005
3.7	Track width, rear	b11 (mm)	980	980	980	980

### Basic dimensions

4.1	Mast / fork carriage tilt forward / backward	degrees	6/8	6/8	6/8	6/8
4.2	Lowered mast height (standard)	h1 (mm)	2,162	2,162	2,162	2,243
4.3	Free lift	h2 (mm)	115	115	115	115
4.4	Lift height (standard)	h3 (mm)	3,305	3,305	3,305	3,305
4.5	Extended mast height (standard)	h4 (mm)	4,485	4,485	4,485	4,485
4.7	Overhead load guard (cab) height	h5 (mm)	2,210	2,210	2,210	2,210
4.8	Seat height / standing height	h7 (mm)	1,118	1,118	1,118	1,118
4.12	Coupling height	h10 (mm)	396	396	396	396
4.19	Overall length	l1 (mm)	3,385	3,415	3,545	3,650
4.20	Length to face of forks	l2 (mm)	2,335	2,365	2,495	2,600
4.21	Overall width	b1 (mm)	1,200	1,200	1,200	1,250
4.22	Fork dimensions (hook type) LxWxT	s / e / l (mm)	1,050 x 100 x 45	1,050 x 100 x 45	1,050 x 122 x 45	1,050 x 122 x 45
4.23	Fork carriage ISO 2328, class / type A,B		III/A	III/A	III/A	III/A
4.24	Fork carriage width	b3 (mm)	1,102	1,102	1,102	1,102
4.31	Ground clearance, loaded, under mast	m1 (mm)	117	117	117	128
4.32	Ground clearance, centre of wheelbase	m2 (mm)	116	116	116	116
4.33	Aisle width for pallets 1000 x 1200 crossways (L x W)	Ast (mm)	3,516	3,516	3,664	3,676
4.34	Aisle width for pallets 800 x 1200 lengthways (W x L)	Ast (mm)	3,694	3,694	3,851	3,863
4.35	Turning radius	Wa (mm)	1,895	1,925	2,055	2,145
4.36	Internal turning radius	b13 (mm)	-	-	-	-

### Performance data

5.1	Travel speed, loaded / unloaded (80V)	km/h	18 / 19	18 / 19	18 / 19	18 / 19
5.2	Lift speed, loaded / unloaded (80V)	mm/s	420 / 600	410 / 600	340 / 500	300 / 500
5.3	Lowering speed, loaded / unloaded	mm/s	500 / 450	500 / 450	500 / 450	500 / 450
5.6	Drawbar pull, loaded	N	18,810 / 17,777	18,022 / 17,767	17,865 / 17,747	16,846 / 16,914
5.8	Gradient performance, loaded / unloaded	%	28 / 26	26 / 24	22 / 24	19 / 22
5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic

### E - Motor

6.1	Drive motor rating S2 60 min (80V)	kW	8.0 x 2	8.0 x 2	8.0 x 2	8.0 x 2
6.2	Pump motor rating at S3 - 15 % (80V)	kW	19.7	19.7	19.7	19.7
6.4	Battery voltage, nominal capacity K5 (80V)	V/Ah	80 / 500	80 / 500	80 / 600	80 / 600
6.5	Battery weight	kg	1,470	1,470	1,780	1,780
	Battery compartment dimensions L / W / H	mm	1,029 / 714 / 827	1,029 / 714 / 827	1,029 / 858 / 827	1,029 / 858 / 827

### Other details

8.1	Type of drive control	AC	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.

**HYUNDAI MATERIAL HANDLING**

PLEASE CONTACT

Hyundai Construction Equipment Europe nv

Hyundailaan 4, 3980 Tessenderlo, Belgium Tel: (32) 14-56-2200 Fax: (32) 14-59-3405 www.hyundai.eu

EN - 2019.02 Rev 1