

22/25/30/32/35B-9

Electric Counterbalance Trucks

MOVING YOU FURTHER

HYUNDAI HEAVY INDUSTRIES



*Photo may include optional equipment.

 **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.



Some of the photos may include optional equipment.

Compact forklift with proven AC technology

Maximum performance

Comfortable operating room

Load indicator

Battery side loading system

Curve control system

Fingertip controlled mini levers available (optional)

Safety system that prevents over loading (optional)



High Efficiency & Optimal Performance



More efficient operating control levers (Optional)

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

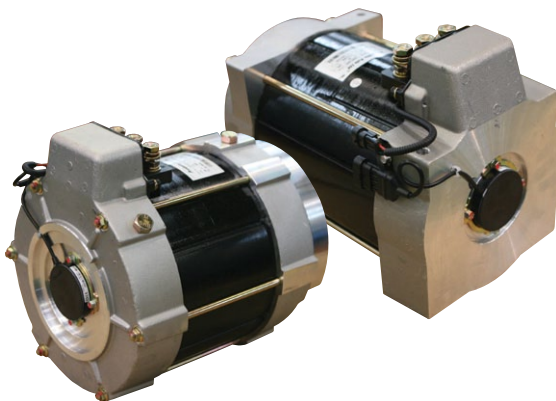


Finger tip control levers (Optional)

The finger tip control lever allows 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.



Some of the photos may include optional equipment.



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 reduction maintenance cost.

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

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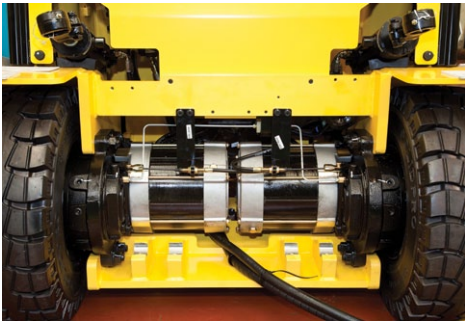
Curve control

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



Dual drive system

The dual drive system enhances the operator's ability to maneuver in small aisle widths using minimum energy consumption. Plus, the drive units and AC motors intergrated in the front axle provide the operator with extremely improved gradient capacity.

Some of the photos may include optional equipment.



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	%
22B-9	34
25B-9	31
30B-9	27
32B-9	26
35B-9	23

Max.Travel Speed (Unloaded)

Model	mph
22B-9	11.2
25B-9	11.2
30B-9	11.2
32B-9	11.2
35B-9	11.2

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**



Some of the photos may include optional equipment.

Excellent visibility for safe operation

Optimized lift cylinder arrangement provides the 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 during operation.

Strong overhead guard

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

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

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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 inactive.

Lift Lock

Tilt Lock

Drive Lock



Some of the photos may include optional equipment.



Safety lamps & rear reflectors

LED combination lights and halogen headlights offer the driver visibility in all circumstances.
Rear reflectors mounted on the counterweight enhance safety for the driver and the work area.

Optimized Ergonomics & Fast and Easy Maintenance



Spacious operator cabin

Some of the photos may include optional equipment.

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

Based on a human engineering design, the easily adjustable suspension seat provides greater comfort reducing operator fatigue.

An ideal arrangement of components ensures easy access and convenience for maintenance.

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Some of the photos may include optional equipment.

Easy battery replacement

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



Advanced LCD Monitor

The LCD color 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 lever, steer angle & travel direction, battery discharge indicator, hour meter & working mode. The load indicator displays the load weight in the monitor. The operator can select various performance modes to meet all working conditions. It is available multiple languages (maximum 12) for operator.

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.

Specification 9 Series

Mast Specification (22/25/30B-9)

Mast Type		Maximum Fork Height (in / mm)	Overall Height (Lowered) (in / mm)	Free Lift Height (in / mm)			Tilt Angle (deg) Fwd / Bwd	Load Capacity without side shift at 20in LC (lb)			Load Capacity with side shift at 20in LC (lb)			Truck Weight (Unloaded) (lb)		
				With Load Backrest		Without Load Backrest										
		22/25/30B-9	22/25/30B-9	22/25/30B-9	22/25B-9	30B-9	22/25/30B-9	22B-9	25B-9	30B-9	22B-9	25B-9	30B-9	22B-9	25B-9	30B-9
2-Stage Limited free lift	V300	118 / 3005	79 / 2012	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	4850	5512	6614	4850	5512	6614	8880	9464	10046
	* V330	130 / 3305	85 / 2162	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	4850	5512	6614	4850	5512	6614	8922	9506	10093
	V350	138 / 3505	89 / 2262	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	4850	5512	6614	4850	5512	6614	8960	9544	10132
	V370	146 / 3705	95 / 2412	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	4850	5512	6614	4850	5456	6614	9008	9592	10185
	V400	158 / 4005	101 / 2562	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	4850	5512	6614	4850	5346	6614	9057	9641	10238
	V430	169 / 4305	107 / 2712	4.5 / 115	4.5 / 115	4.5 / 115	6 / 6	4850	5401	6614	4850	5236	6614	9165	9749	10348
	V450	177 / 4505	113 / 2862	4.5 / 115	4.5 / 115	4.5 / 115	6 / 6	4850	5291	6614	4795	5126	6504	9229	9813	10417
	V470	185 / 4705	117 / 2962	4.5 / 115	4.5 / 115	4.5 / 115	6 / 6	4850	5203	6614	4685	5038	6338	9262	9846	10452
2-Stage full free lift	V500	197 / 5005	123 / 3112	4.5 / 115	4.5 / 115	4.5 / 115	6 / 6	4740	5181	6393	4575	5016	6118	9310	9894	10505
	VF295	117 / 2976	79 / 2012	33 / 832	54 / 1379	52 / 1317	6 / 6	4850	5512	6614	4850	5512	6614	9012	9597	10124
	VF325	129 / 3276	85 / 2162	39 / 982	60 / 1529	58 / 1467	6 / 6	4850	5512	6614	4850	5512	6504	9085	9669	10196
3-Stage full free lift	VF345	137 / 3476	89 / 2262	43 / 1082	64 / 1629	62 / 1567	6 / 6	4850	5512	6614	4795	5456	6338	9134	9718	10251
	TF370/TS370	146 / 3705	71 / 1812	25 / 632	44 / 1122	44 / 1117	6 / 6	4850	5512	6614	4850	5456	6614	9202	9786	10408
	TF400/TS400	158 / 4005	75 / 1912	29 / 732	48 / 1222	48 / 1217	6 / 6	4850	5512	6614	4850	5346	6614	9246	9830	10454
	TF430/TS430	169 / 4305	79 / 2012	33 / 832	52 / 1322	52 / 1317	6 / 6	4850	5401	6614	4850	5236	6504	9292	9877	10551
	TF450/TS450	177 / 4505	83 / 2112	37 / 932	56 / 1422	56 / 1417	6 / 6	4850	5291	6614	4795	5126	6338	9339	9923	10562
	TF470/TS470	185 / 4705	85 / 2162	39 / 982	58 / 1472	58 / 1467	6 / 6	4850	5181	6504	4685	5016	6228	9363	9947	10589
	TF500/TS500	197 / 5005	89 / 2262	43 / 1082	62 / 1572	62 / 1567	6 / 6	4740	5071	6393	4575	4905	6118	9418	10002	10644
	TF550/TS550	217 / 5505	97 / 2462	50 / 1282	70 / 1772	70 / 1767	6 / 6	4630	4850	6173	4464	4685	5897	9504	10088	10739
	TF600/TS600	236 / 6005	105 / 2662	58 / 1482	78 / 1972	77 / 1967	6 / 6	4409	4740	5952	4244	4575	5677	9586	10170	10831
	TF650/TS650	256 / 6505	113 / 2862	66 / 1682	86 / 2172	85 / 2167	3 / 3	3638	3968	4960	3472	3803	4685	9698	10282	10944
4-Stage full free lift	TF700/TS700	276 / 7005	121 / 3062	74 / 1882	93 / 2372	93 / 2367	3 / 3	2646	3086	4079	2480	2921	3803	9771	10355	11016
	QF610	241 / 6115	85 / 2147	38 / 967	60 / 1514	57 / 1452	3 / 3	3417	3638	3968	3252	3472	3693	10170	10754	11268
	QF660	260 / 6615	92 / 2347	46 / 1167	67 / 1714	65 / 1652	3 / 3	3197	3417	3748	3031	3252	3472	10302	10886	11400
	QF700	276 / 7015	96 / 2447	50 / 1267	71 / 1814	69 / 1752	3 / 3	2756	2866	3086	2590	2701	2811	10368	10953	11466
	QF745	294 / 7465	102 / 2597	56 / 1417	77 / 1964	75 / 1902	3 / 3	2535	2646	2756	2370	2480	2480	10470	11114	11568
	QF790	3112 / 7915	108 / 2747	62 / 1567	83 / 2114	81 / 2052	3 / 3	1543	2653	1653	1378	1488	1378	10692	11277	11790

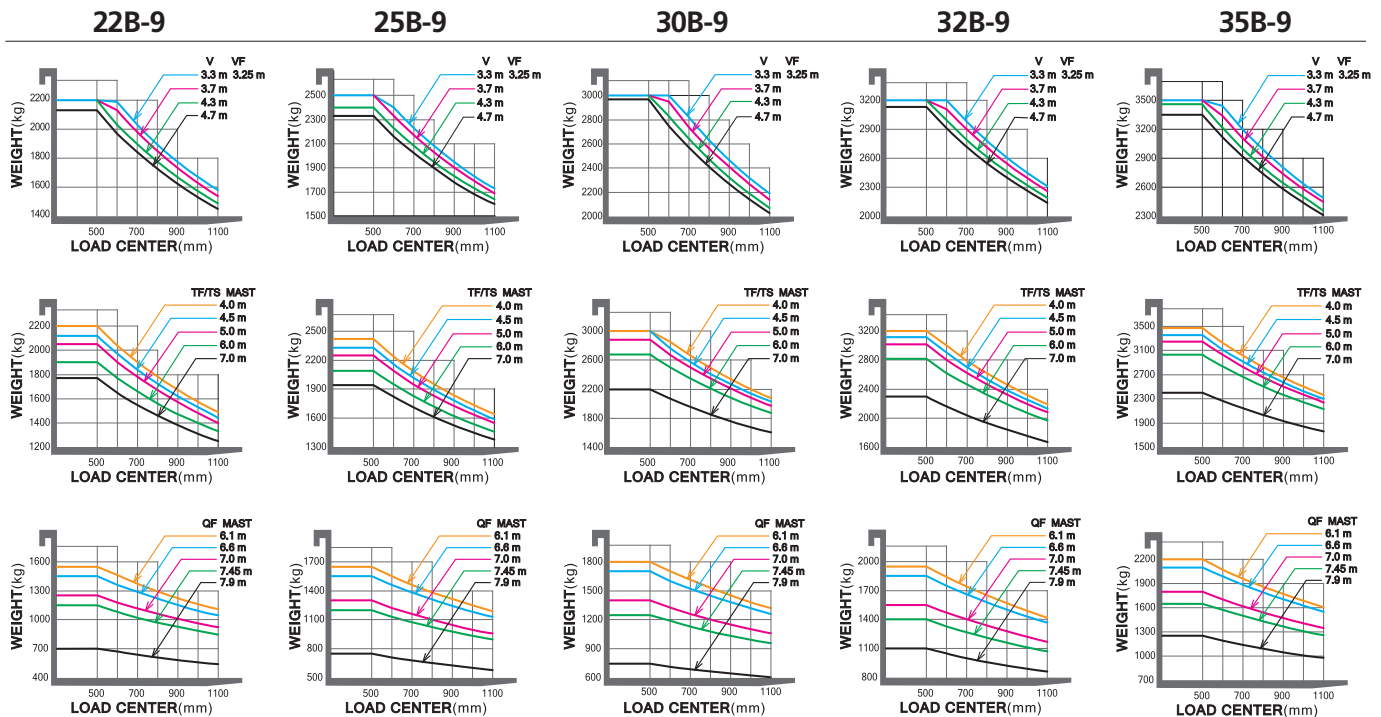
Mast Specification (32/35B-9)

Mast Type		Maximum Fork Height (in / mm)	Overall Height (Lowered) (in / mm)		Free Lift Height (in / mm)				Tilt Angle (deg) Fwd / Bwd	Load Capacity without side shift at 20in LC (lb)		Load Capacity with side shift at 20in LC (lb)		Truck Weight (Unloaded) (lb)	
					With Load Backrest		Without Load Backrest								
					32/35B9	32B-9	35B-9	32B-9							
2- Stage Limited free lift	V300	118 / 3005	82 / 2082	82 / 2093	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	126	138	126	138	187	197
	* V330	130 / 3305	88 / 2232	88 / 2243	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	126	138	126	138	188	198
	V350	138 / 3505	92 / 2332	92 / 2343	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	126	138	121	138	189	199
	V370	146 / 3705	98 / 2482	98 / 2493	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	126	138	121	138	190	199
	V400	158 / 4005	104 / 2632	104 / 2643	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 10	123	138	118	135	191	200
	V430	169 / 4305	110 / 2782	110 / 2793	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 6	120	138	115	132	193	202
	V450	177 / 4505	115 / 2932	116 / 2943	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 6	118	136	113	130	194	204
	V470	185 / 4705	119 / 3032	120 / 3043	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 6	117	134	112	128	195	204
	V500	197 / 5005	125 / 3182	126 / 3193	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115	6 / 6	114	130	109	124	196	205
2- Stage full free lift	VF295	117 / 2976	82 / 2082	82 / 2093	36 / 913	36 / 913	54 / 1377	54 / 1377	6 / 6	126	138	126	138	190	199
	VF325	129 / 3276	88 / 2232	88 / 2243	42 / 1063	42 / 1063	60 / 1527	60 / 1527	6 / 6	126	138	126	135	190	200
	VF345	137 / 3476	92 / 2332	92 / 2343	46 / 1163	46 / 1163	64 / 1627	64 / 1627	6 / 6	126	138	121	132	191	201
3- Stage full free lift	TF370/TS370	146 / 3705	74 / 1882	75 / 1893	28 / 702	28 / 713	44 / 1112	46 / 1177	6 / 6	126	138	121	135	195	205
	TF400/TS400	158 / 4005	78 / 1982	78 / 1993	32 / 802	32 / 813	48 / 1212	50 / 1277	6 / 6	123	138	118	132	196	206
	TF430/TS430	169 / 4305	82 / 2082	82 / 2093	36 / 902	36 / 913	52 / 1312	54 / 1377	6 / 6	120	136	116	130	197	207
	TF450/TS450	177 / 4505	86 / 2182	86 / 2193	39 / 1002	40 / 1013	56 / 1412	58 / 1477	6 / 6	119	134	114	128	198	208
	TF470/TS470	185 / 4705	88 / 2232	88 / 2243	41 / 1052	42 / 1063	58 / 1462	60 / 1527	6 / 6	117	132	112	126	202	211
	TF500/TS500	197 / 5005	92 / 2332	92 / 2343	45 / 1152	46 / 1163	61 / 1562	64 / 1627	6 / 6	115	130	110	124	200	209
	TF550/TS550	217 / 5505	100 / 2532	100 / 2543	53 / 1352	54 / 1363	69 / 1762	72 / 1827	6 / 6	111	124	106	118	201	211
	TF600/TS600	236 / 6005	108 / 2732	108 / 2743	61 / 1552	62 / 1563	77 / 1962	80 / 2027	6 / 6	107	122	103	116	203	213
	TF650/TS650	256 / 6505	115 / 2932	116 / 2943	69 / 1752	69 / 1763	85 / 2162	88 / 2227	3 / 3	91	102	86	96	205	215
	TF700/TS700	276 / 7005	123 / 3132	124 / 3143	77 / 1952	77 / 1963	93 / 2362	96 / 2427	3 / 3	75	87	70	81	206	216
4- Stage full free lift	QF610	241 / 6115	85 / 2147	85 / 2158	40 / 1017	40 / 1017	57 / 1459	57 / 1459	3 / 3	71	98	66	93	210	220
	QF660	260 / 6615	92 / 2347	93 / 2358	48 / 1217	48 / 1217	65 / 1659	65 / 1659	3 / 3	67	94	62	89	212	222
	QF700	276 / 7015	96 / 2447	97 / 2458	52 / 1317	52 / 1317	69 / 1759	69 / 1759	3 / 3	56	83	51	77	214	223
	QF745	294 / 7465	102 / 2597	103 / 2608	58 / 1467	58 / 1467	75 / 1909	75 / 1909	3 / 3	35	77	30	71	215	225
	QF790	312 / 7915	108 / 2747	109 / 2758	64 / 1617	64 / 1617	81 / 2059	81 / 2059	3 / 3	20	57	15	51	219	229

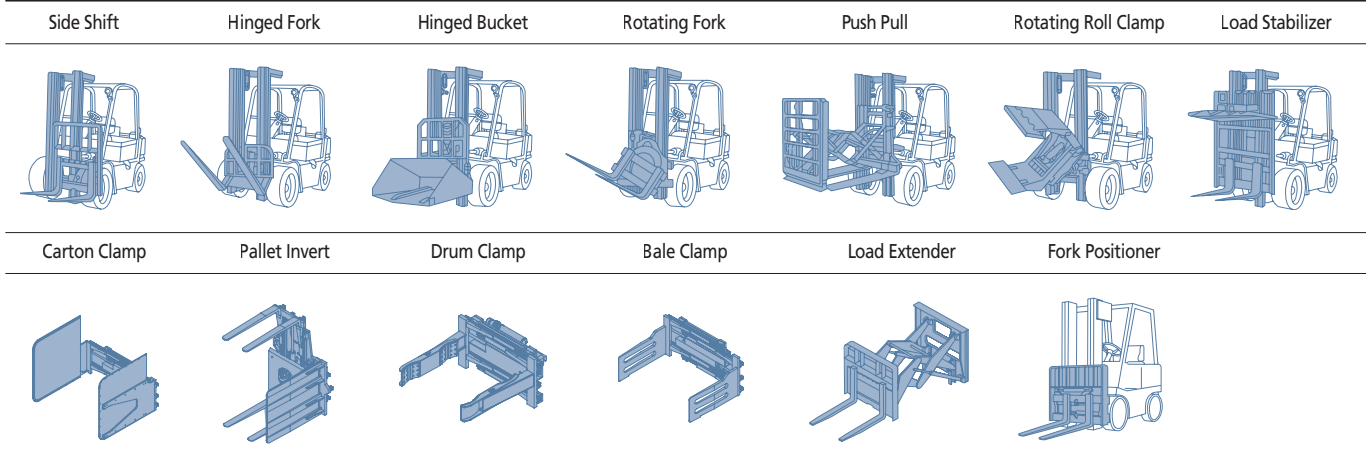
* Standard

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

Load Capacity



Various Attachments

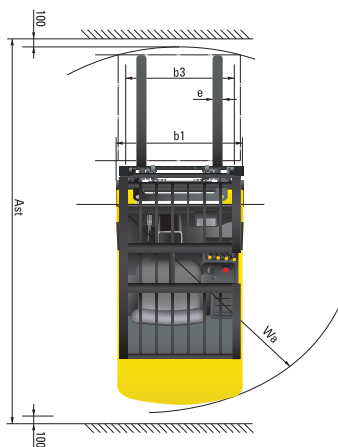
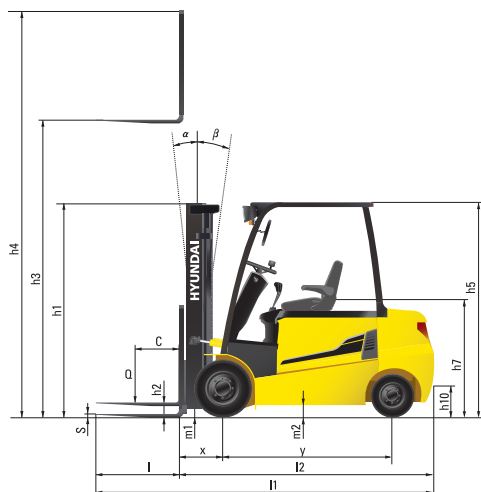


Optional Items

- Fork (in)
22 / 25B-9 : 34, 39, 41 (STD) 47, 53, 59, 65, 71
30 / 32 / 35B-9 : 35, 41 (STD) 45, 47, 65, 71, 78, 83, 91, 94
- Overshoe (in)
22/ 25B-9 : 51, 59, 67, 71
30/32/35B-9 : 59, 67, 71
- Integral Sideshift
- Tire : Solid (STD) / Pneumatic / Non-marking
Wide tire [22/25/30/32B-9 : Front tire (23x10-12)]
- Seat : KAB

- Finger Tip Control
- Cold Storage
- M.C.V : 2-Spool (STD), 3-Spool, 4-Spool
- Auto Fork Leveling
- Beacon Lamp
- Work Lamp
- OPSS : Mast
- UL : ES, EE
- Cabin

Dimension



Specification

Identification					
1. 1	Manufacturer	HYUNDAI			
1. 2	Manufacturer's type designation	22B-9	25B-9	30B-9	32B-9
1. 3	Drive : electric (battery or mains), diesel, petrol, fuel gas, manual	electric	electric	electric	electric
1. 4	Type of operation : hand, pedestrian, standing, seated, order - picker	seated	seated	seated	seated
1. 5	Load capacity / rated load Q (lb / kg)	4,850 / 2,200	5,500 / 2,500	6,600 / 3,000	7,000 / 3,200
1. 6	Load center distance c (in / mm)	20 / 500	20 / 500	20 / 500	20 / 500
1. 7	Load distance, center of drive axle to fork x (in / mm)	18 / 458	18 / 458	18 / 458	18 / 458
1. 8	Wheelbase y (in / mm)	55 / 1,400	55 / 1,400	63 / 1,600	63 / 1,600

Weights					
2. 1	Service weight (lb / kg)	8,918 / 4,045	9,502 / 4,310	10,472 / 4,750	10,880 / 4,935
2. 2	Axle loading, loaded front / rear (lb)	11,905 / 1,863	13,073 / 194	14,859 / 2,227	15,609 / 2,326
2. 3	Axle loading, unloaded front / rear (lb)	3,373 / 5,181	3,792 / 5,710	4,277 / 6,195	4,332 / 6,548

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 (Φ x width)	23X9-10	23X9-10	23X9-10	23X10-12
3. 3	Tires size, rear (Φ x width)	18X7-8	18X7-8	18X7-8	18X7-8
3. 4	Wheels, number front rear(x = driven wheels)	2x2	2x2	2x2	2x2
3. 5	Track width, front (in / mm)	39 / 993	39 / 993	39 / 993	40 / 1,005
3. 6	Track width, rear (in / mm)	39 / 980	39 / 980	39 / 980	39 / 980

Basic Dimensions					
4. 1	Mast / fork carriage tilt forward / backward (deg)	6 / 10	6 / 10	6 / 10	6 / 10
4. 2	Lowered mast height h1 (in / mm)	85 / 2,162	85 / 2,162	85 / 2,162	88 / 2,232
4. 3	Free lift height h2 (in / mm)	4.5 / 115	4.5 / 115	4.5 / 115	4.5 / 115
4. 4	Lift height h3 (in / mm)	130 / 3,300	130 / 3,300	130 / 3,300	130 / 3,300
4. 5	Extended mast height h4 (in / mm)	177 / 4,485	177 / 4,485	177 / 4,485	177 / 4,485
4. 6	Overhead guard (cab) height h5 (in / mm)	88 / 2,230	88 / 2,230	88 / 2,230	88 / 2,230
4. 7	Seat height / Standing height h7 (in / mm)	47 / 1,180	47 / 1,180	47 / 1,180	47 / 1,180
4. 8	Coupling height h10 (in / mm)	13 / 325	13 / 325	13 / 325	13 / 325
4. 9	Overall length l1 (in / mm)	132 / 3,345	132 / 3,345	139 / 3,538	140 / 3,553
4. 10	Length to face of forks l2 (in / mm)	90 / 2,295	90 / 2,295	98 / 2,488	99 / 2,503
4. 11	Overall width b1 (in / mm)	47 / 1,200	47 / 1,200	47 / 1,200	49 / 1,250
4. 12	Fork dimensions s / e / l (in)	41 x 4 x 2	41 x 4 x 2	41 x 5 x 2	41 x 5 x 2
4. 13	Fork carriage ISO 2328, class / type A, B	III / A	III / A	III / A	III / A
4. 14	Fork - carriage width b3 (in / mm)	43 / 1,102	43 / 1,102	43 / 1,102	43 / 1,102
4. 15	Ground clearance, loaded, under mast m1 (in / mm)	4.6 / 117	4.6 / 117	4.6 / 117	5.0 / 128
4. 16	Ground clearance, centre of wheelbase m2 (in / mm)	5.1 / 130	5.1 / 130	5.1 / 130	5.1 / 130
4. 17	Aisle width for pallets 1,000 x 1,200 crossways Ast (in / mm)	143 / 3,637	143 / 3,637	151 / 3,829	151 / 3,843
4. 18	Aisle width for pallets 800 x 1,200 lengthways Ast (in / mm)	150 / 3,803	150 / 3,803	158 / 4,009	158 / 4,023
4. 19	Turning radius Wa (in / mm)	76 / 1,939	76 / 1,939	85 / 2,150	85 / 2,164
4. 20	Smallest pivot point distance (in / mm)	10 / 257	10 / 257	10 / 257	10 / 257

Performance Data					
5. 1	Travel speed, loaded/ unloaded	48V (mph)	10.6 / 11.2	10.6 / 11.2	10.6 / 11.2
		36V (mph)	8.1 / 9.3	8.1 / 9.3	8.1 / 9.3
5. 2	Lift speed, loaded/ unloaded	48V (ft/s)	1.4 / 2.0	1.4 / 2.0	1.1 / 1.6
		36V (ft/s)	1.0 / 1.6	1.0 / 1.6	0.8 / 1.4
5. 3	Lowering speed, loaded/unloaded	(ft/s)	1.6 / 1.5	1.6 / 1.5	1.6 / 1.5
5. 4	Max. drawbar pull, loaded/ unloaded S2 5min (N)		20,310 / 19,910	20,370 / 19,840	20,230 / 19,820
5. 5	Max. gradient performance, loaded/ unloaded S2 5min (%)		34 / 20	31 / 18	27 / 18
5. 6	Service brake		Hydraulic	Hydraulic	Hydraulic

E - Motor					
6. 1	Drive motor rating S2 60 min (HP / kW)	9.4 / 7.0 x2	9.4 / 7.0 x2	9.4 / 7.0 x2	9.4 / 7.0 x2
6. 2	Pump motor rating at S3 - 15 % (HP / kW)	22.8 / 17	22.8 / 17	22.8 / 17	22.8 / 17
6. 3	Battery voltage (V)	48	48	48	48
6. 4	Battery weight (lb / kg)	2,403 / 1,090	2,535 / 1,150	2,910 / 1,320	2,910 / 1,320
6. 5	Battery compartment dimensions L / W / H (in)	40.7 / 31.7 / 21.3	40.7 / 31.7 / 21.3	40.7 / 39.4 / 21.3	40.7 / 39.4 / 21.3

Other Details					
7. 1	Type of drive control	AC	AC	AC	AC



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PLEASE CONTACT