

15/18/20BT-9

Electric Counterbalance Trucks

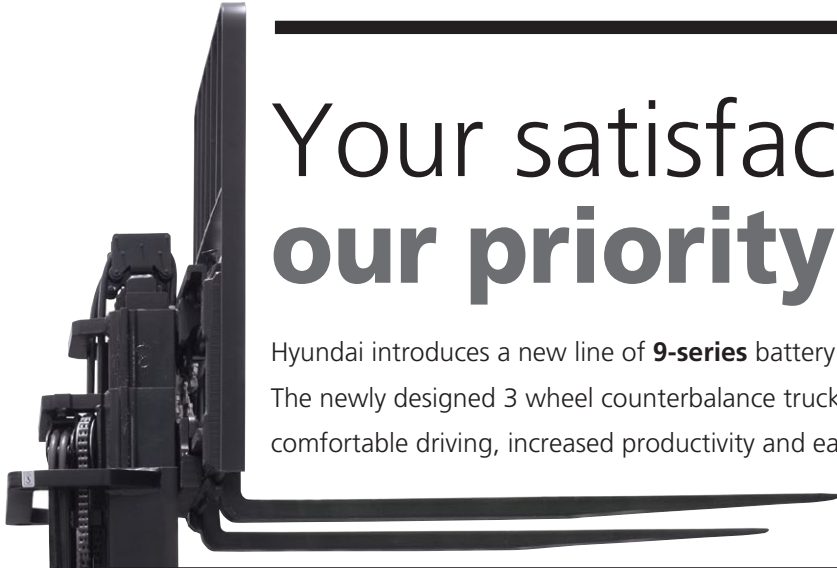
MOVING YOU FURTHER

HYUNDAI HEAVY INDUSTRIES



*Photo may include optional equipment.

 **HYUNDAI**
CONSTRUCTION EQUIPMENT AMERICAS, INC.



Your satisfaction is **our priority!**

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

The newly designed 3 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
 - Battery side loading system
 - Curve control system
 - Fingertip controlled mini levers available (optional)
 - Weight indicator (optional)
 - Safety system that prevents over loading (optional)
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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.

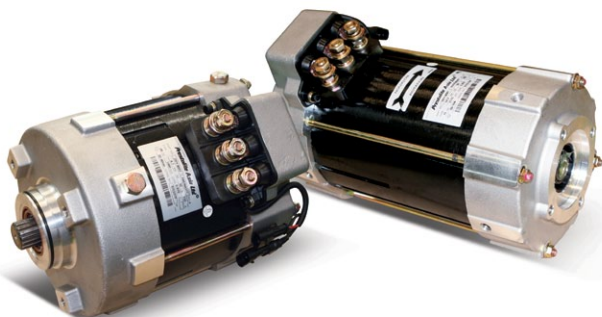


Finger tip control levers (Optional)

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 reduced maintenance costs.

Efficient, smooth running and compact design provide you with enhanced performance and highest productivity.

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Some of the photos may include optional equipment.

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 combination of 3-wheel design and dual drive motors offer central 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	mph
15BT-9	10.6
18BT-9	10.6
20BT-9	10.6

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 the operator with wider visibility. The panoramic mirror expands the driver's view when backing up.

Some of the photos may include optional equipment.



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 impossible.

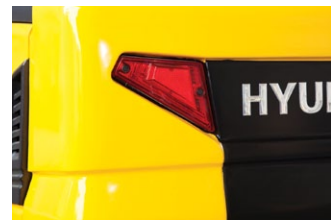
Lift Lock

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 application.

Optimised Ergonomics & Fast and Easy Maintenance



Spacious operator cabin

Some of the photos may include optional equipment.

The BT has 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 cabin in an easy and safe way the height of the entrance step is only 16 in 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.

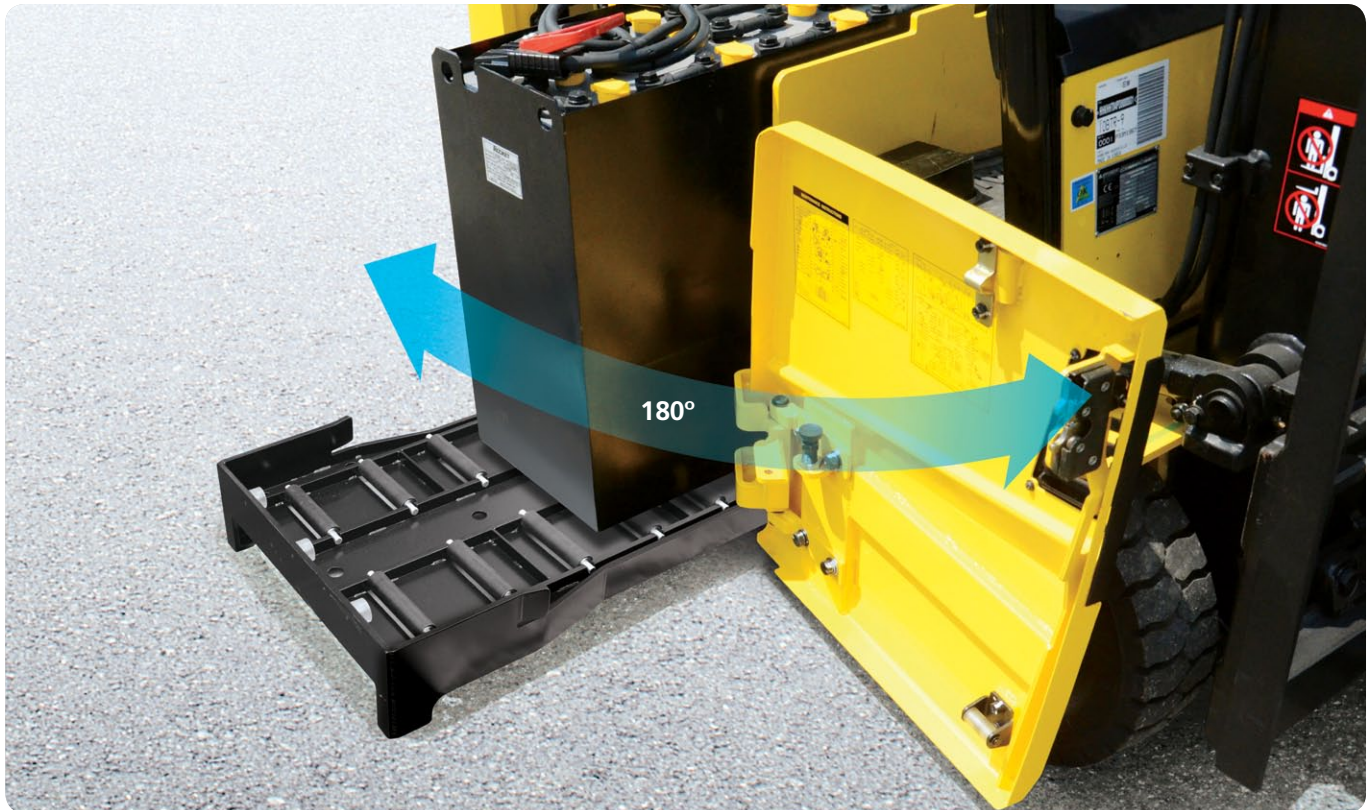


Grammer seat (Optional)

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.

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Easy battery replacement

Some of the photos may include optional equipment.

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 optional load indicator displays the load weight in the monitor. The operator can select various performance modes to meet all working conditions. It is available multi-languages (maximum 11) for the operator.

H (High) mode N (Normal) mode E (Economic) mode
Turtle mode (maintain 4 mi/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 (in / mm)	Overall Height (Lowered) (in / mm)	Free Lift Height (in / mm)		Tilt Angle (deg) Fwd / Bwd	Load Capacity without side shift at (20 in LC) (lb)		Load Capacity with side shift at (20 in LC) (lb)		Truck Weight (Unloaded) (lb)	
				With Load Backrest	Without Load Backrest							
				15/18BT-9	15/18BT-9							
2-Stage Limited free lift	V250	100 / 2525	68 / 1720	1.4 / 35	1.4 / 35	5 / 7	3,307	3,968	3,175	3,814	6,510	7,141
	V270	108 / 2725	72 / 1820	1.4 / 35	1.4 / 35	5 / 7	3,307	3,968	3,175	3,814	6,539	7,169
	V300	120 / 3025	78 / 1970	1.4 / 35	1.4 / 35	5 / 7	3,307	3,968	3,175	3,814	6,581	7,211
	* V330	131 / 3325	84 / 2120	1.4 / 35	1.4 / 35	5 / 7	3,307	3,968	3,175	3,814	6,627	7,258
	V350	139 / 3525	88 / 2220	1.4 / 35	1.4 / 35	5 / 7	3,307	3,968	3,175	3,814	6,656	7,286
	V370	147 / 3725	91 / 2320	1.4 / 35	1.4 / 35	5 / 7	3,307	3,968	3,175	3,814	6,682	7,313
	V400	159 / 4025	97 / 2470	1.4 / 35	1.4 / 35	5 / 7	3,197	3,858	3,087	3,704	6,737	7,368
	V450	178 / 4525	111 / 2820	1.4 / 35	1.4 / 35	5 / 5	3,087	3,748	3,087	3,616	6,885	7,516
	V500	198 / 5025	121 / 3070	1.4 / 35	1.4 / 35	5 / 5	2,977	3,527	2,954	3,395	6,960	7,591
2-Stage full free lift	V550	218 / 5525	131 / 3320	1.4 / 35	1.4 / 35	5 / 5	2,866	3,417	2,756	3,307	7,004	7,635
	VF300	120 / 3025	78 / 1970	38 / 972	58 / 1460	5 / 5	3,307	3,968	3,175	3,814	6,667	7,297
	VF330	131 / 3325	84 / 2120	44 / 1122	63 / 1610	5 / 5	3,307	3,968	3,175	3,814	6,713	7,344
	VF350	139 / 3525	88 / 2220	48 / 1222	67 / 1710	5 / 5	3,307	3,968	3,175	3,814	6,748	7,379
3-Stage full free lift	TF/TS370	147 / 3735	70 / 1770	30 / 772	450 / 1260	5 / 5	3,252	3,858	3,131	3,704	6,837	7,467
	TF/TS400	159 / 4035	74 / 1870	34 / 872	54 / 1360	5 / 5	3,197	3,748	3,064	1,630	6,881	7,511
	TF/TS430	171 / 4335	78 / 1970	38 / 972	58 / 1460	5 / 5	3,087	3,638	2,954	1,590	6,925	7,555
	TF/TS450	179 / 4535	82 / 2070	42 / 1072	61 / 1560	5 / 5	3,031	3,583	2,910	1,560	6,967	7,597
	TF/TS470	186 / 4735	84 / 2120	44 / 1122	63 / 1610	5 / 5	2,976	3,527	2,866	1,530	6,991	7,621
	TF/TS500	198 / 5035	88 / 2220	48 / 1222	67 / 1710	5 / 5	2,866	3,417	2,756	1,490	7,035	7,666
	TF/TS550	218 / 5535	95 / 2420	56 / 1422	75 / 1910	5 / 5	2,756	3,197	2,646	1,390	7,121	7,751
	TF/TS600	238 / 6035	103 / 2620	64 / 1622	83 / 2110	5 / 5	2,590	2,590	2,491	1,130	7,262	7,893
	TF/TS650	257 / 6535	111 / 2820	72 / 1822	91 / 2310	5 / 5	1,984	2,315	1,874	1,010	7,359	7,990
	TF/TS700	277 / 7035	119 / 3020	80 / 2022	99 / 2510	5 / 5	1,433	1,764	1,345	760	7,445	8,076

Mast Specification (20BT-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 (20 in LC) (lb)	Load Capacity with side shift at (20 in LC) (lb)	Truck Weight (Unloaded) (lb)	
				With Load Backrest	Without Load Backrest					
				20BT-9	20BT-9					
2-Stage Limited free lift	V250	100 / 2530	68 / 1729	1.6 / 40	1.6 / 40	5 / 7	4,409	4,233	7,535	
	V270	108 / 2730	72 / 1829	1.6 / 40	1.6 / 40	5 / 7	4,409	4,233	7,564	
	V300	120 / 3030	78 / 1979	1.6 / 40	1.6 / 40	5 / 7	4,409	4,233	7,606	
	* V330	131 / 3330	84 / 2129	1.6 / 40	1.6 / 40	5 / 7	4,409	4,233	7,652	
	V350	139 / 3530	88 / 2229	1.6 / 40	1.6 / 40	5 / 7	4,409	4,233	7,681	
	V370	147 / 3730	92 / 2329	1.6 / 40	1.6 / 40	5 / 7	4,409	4,233	7,707	
	V400	159 / 4030	98 / 2479	1.6 / 40	1.6 / 40	5 / 7	4,299	4,145	7,763	
	V450	178 / 4530	111 / 2829	1.6 / 40	1.6 / 40	5 / 5	4,079	3,924	7,910	
	V500	198 / 5030	121 / 3079	1.6 / 40	1.6 / 40	5 / 5	3,968	3,814	7,985	
2-Stage full free lift	V550	218 / 5530	131 / 3329	1.6 / 40	1.6 / 40	5 / 5	3,748	3,616	8,029	
	VF300	119 / 3030	78 / 1979	39 / 986	58 / 1474	5 / 5	4,409	4,233	7,692	
	VF330	131 / 3330	84 / 2129	45 / 1136	64 / 1624	5 / 5	4,409	4,233	7,738	
	VF350	139 / 3530	88 / 2229	49 / 1236	68 / 1725	5 / 5	4,409	4,233	7,774	
3-Stage full free lift	TF/TS370	147 / 3740	70 / 1779	31 / 786	50 / 1274	5 / 5	4,299	4,145	7,862	
	TF/TS400	159 / 4040	74 / 1879	35 / 886	54 / 1374	5 / 5	4,1896	4,034	7,906	
	TF/TS430	171 / 4340	78 / 1979	39 / 986	58 / 1474	5 / 5	4,079	3,946	7,950	
	TF/TS450	179 / 4540	82 / 2079	43 / 1086	62 / 1574	5 / 5	4,023	3,902	7,992	
	TF/TS470	187 / 4740	84 / 2129	45 / 1136	64 / 1624	5 / 5	3,968	3,836	8,016	
	TF/TS500	198 / 5040	88 / 2229	49 / 1236	68 / 1724	5 / 5	3,858	3,726	8,060	
	TF/TS550	218 / 5540	96 / 2429	57 / 1436	76 / 1924	5 / 5	3,748	3,616	8,146	
	TF/TS600	238 / 6040	104 / 2629	64 / 1636	84 / 2124	5 / 5	3,307	3,307	8,287	
	TF/TS650	258 / 6540	111 / 2829	72 / 1836	92 / 2324	5 / 5	2,866	2,756	8,384	
	TF/TS700	277 / 7040	119 / 3029	80 / 2036	99 / 2524	5 / 5	2,315	2,227	8,470	

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

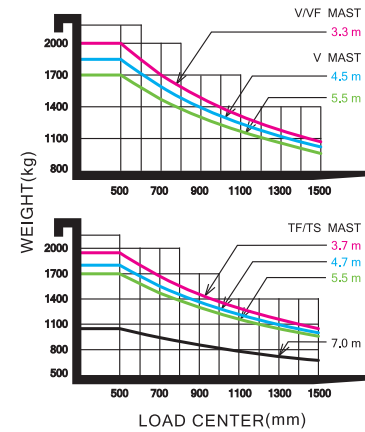
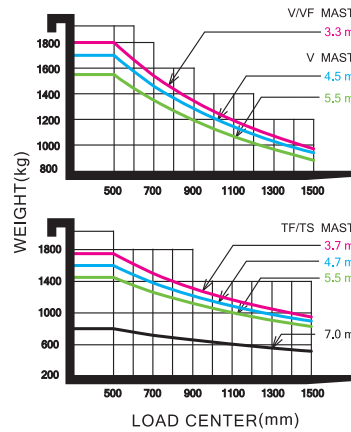
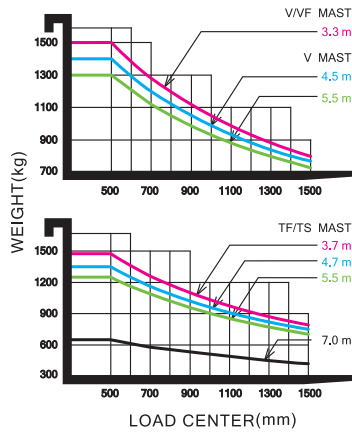
* Standard

Load Capacity

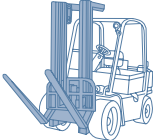
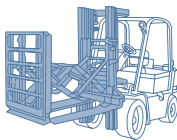
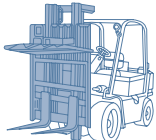
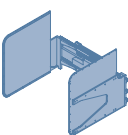
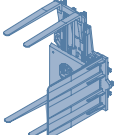
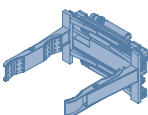
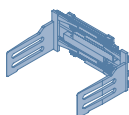
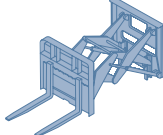
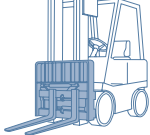
15BT-9

18BT-9

20BT-9



Various Attachments

Side Shift	Hinged Fork	Hinged Bucket	Rotating Fork	Push Pull	Rotating Roll Clamp	Load Stabilizer
						
Carton Clamp	Pallet Invert	Drum Clamp	Bale Clamp	Load Extender	Fork Positioner	
						

Optional Items

- **Fork (in)** 15 / 18BT-9 : 1.4 X 4.0 X 30, 33, 35 (STD) 41, 47, 53, 59
20BT-9 : 2.0 X 4.0 X 35 (STD) 37, 39, 41, 45, 47, 53, 59, 63
- **Overshoe (in)** : 53 / 59 / 67
- **Integral Sideshift**
- **Tire** : SOLID (STD) / Non-marking / Cushion tire /
Wide tire [15BT-9 : Front tire (200 / 50-10), 18/20BT-9 : Rear tire (15X5.5-9)]
- **Seat** : Grammer
- **Finger Tip Control**
- **Cold Storage**

- **M.C.V** : 2-Spool (STD), 3-Spool, 4-Spool
- **Auto Fork Leveling**
- **Beacon Lamp**
- **Load Indicator**
- **Work Lamp**
- **OPSS** : Mast
- **UL** : ES, EE
- **Cabin**

[illegible]

Identification				
1.1	Manufacturer		HYUNDAI	
1.2	Manufacturer's type designation	15BT-9	18BT-9	20BT-9
1.3	Drive : electric (battery or mains), diesel, petrol, fuel gas, manual	Electric	Electric	Electric
1.4	Type of operation : hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated
1.5	Load capacity / rated load	Q (lb / kg)	3,300 / 1,500	4,000 / 1,800
1.6	Load center distance	c (in / mm)	20 / 500	20 / 500
1.8	Load distance, center of front axle to fork	x (in / mm)	14.2 / 360	14.2 / 360
1.9	Wheelbase	y (in / mm)	53 / 1335	56 / 1,420
Weights				
2.1	Service weight	(lb / kg)	6,890 / 3,125	7,419 / 3,365
2.2	Axle loading, loaded front / rear	(lb)	9,099 / 1,098	10,141 / 1,246
2.3	Axle loading, unloaded front / rear	(lb)	3,662 / 3,228	3,770 / 3,649
Wheels, Chassis				
3.1	Tires : solid rubber(V), superelastic(SE), pneumatic(P), polyurethane(PE)	SE	SE	SE
3.2	Tires size, front (Φ x width)	18 x 7-8	200 / 50-10	200 / 50-10
3.3	Tires size, rear (Φ 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	(in / mm)	35 / 895	36 / 905
3.7	Track width, rear	(in / mm)	6.7 / 170	6.7 / 170
Basic Dimensions				
4.1	Mast / fork carriage tilt forward / backward (deg)	5 / 7	5 / 7	5 / 7
4.2	Lowered mast height	h1 (in / mm)	78 / 1,970	78 / 1,979
4.3	Free lift height	h2 (in / mm)	1.4 / 35	1.4 / 35
4.4	Lift height	h3 (in / mm)	130 / 3,300	130 / 3,300
4.5	Extended mast height	h4 (in / mm)	158 / 4,020	158 / 4,020
4.7	Overhead guard (cab) height	h5 (in / mm)	81 / 2,065	81 / 2,065
4.8	Seat height / Standing height	h7 (in / mm)	37 / 927	37 / 927
4.12	Coupling height	h10 (in / mm)	16 / 410	16 / 410
4.19	Overall length	l1 (in / mm)	110 / 2,785	113 / 2,875
4.20	Length to face of forks	l2 (in / mm)	74 / 1,885	78 / 1,975
4.21	Overall width	b1 (in / mm)	42 / 1,074	44 / 1,105
4.22	Fork dimensions	l / e / s (in)	35 x 4 x 1.4	35 x 4 x 1.4
4.23	Fork carriage ISO 2328, class / type A, B	2A	2A	2A
4.24	Fork - carriage width	b3 (in / mm)	39 / 980	39 / 980
4.31	Ground clearance, loaded, under mast	m1 (in / mm)	3.3 / 85	3.7 / 94
4.32	Ground clearance, centre of wheelbase	m2 (in / mm)	3.5 / 90	3.9 / 100
4.33	Aisle width for pallets 1,000 x 1,200 crossways	Ast (in / mm)	127 / 3,226	131 / 3,316
4.34	Aisle width for pallets 800 x 1,200 lengthways	Ast (in / mm)	132 / 3,350	135 / 3,440
4.35	Turning radius	Wa (in / mm)	61 / 1,540	64 / 1,630
Performance Data				
5.1	Travel speed, loaded / unloaded	(mph)	10 / 10.6	10 / 10.6
5.2	Lift speed, loaded / unloaded	(ft/s)	1.4 / 2.0	1.4 / 2.0
5.3	Lowering speed, loaded / unloaded	(ft/s)	1.6 / 1.5	1.6 / 1.5
5.6	Max. drawbar pull, loaded / unloaded S2 5min	(N)	15,102 / 14,759	15,190 / 14,710
5.8	Max. gradient performance, loaded S2 5min	(%)	29.5	27.5
5.10	Service brake		Hydraulic	Hydraulic
E - Motor				
6.1	Drive motor rating S2 60min	(kW)	4.7 x 2	4.7 x 2
6.2	Lift motor rating at S3 20% (S2 10min)	(kW)	14	14
6.4	Battery voltage, nominal capacity K5	(V/Ah)	48 / 510	48 / 585
6.5	Battery weight (Min.)	(kg / lb)	710 / 1565	835 / 1841
	Battery compartment dimensions l/w/h	(in)	38.7 / 21.8 / 27.6	38.7 / 21.8 / 27.6
Other Details				
8.1	Type of drive control		AC	AC

