

15/18/20/23BRP-9

Electric Reach Trucks

MOVING YOU FURTHER

HYUNDAI HEAVY INDUSTRIES



 **HYUNDAI**
CONSTRUCTION EQUIPMENT AMERICAS, INC.

Your satisfaction is **our priority!**

Hyundai introduces a new line of **9-series** battery forklift trucks.
The newly designed reach 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
- Curve control system
- Load weight indicator
- Camera (optional)
- Height indicator (optional)



Superior Power & Optimal Performance

■ Some of the photos may include optional equipment.



Minimum Turning Radius

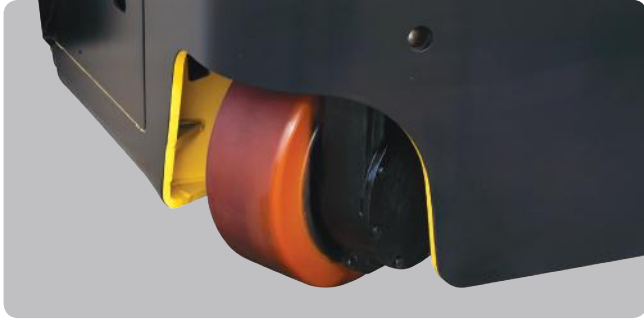
Compact design suitable for narrow aisle operation guarantees work efficiency and maximum space utilization.



Versatile Reach Stroke

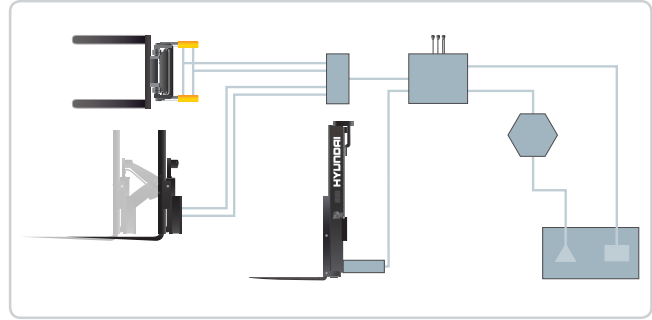
Multi-roller reach assembly provides a smooth, controlled and safe load handling system, and shows unsurpassed versatility during extended reach.

Smooth running, efficient and ergonomically designed, **15/18/20/23BRP-9** series are built to meet your needs.



Automatic Center Position at Starting

When the key is turned to the on position, the steering sensor detects the position of the drive wheel and automatically returns the wheel to the center position.



State-of-the-art Hydraulic System

The latest large-capacity hydraulic system reacts quickly during operation and the low noise control valve increases both efficiency and durability.



Energy Efficiency

H(High) mode : 100%
N(Normal) mode : 110%
E(Economic) mode : 120%

High Technology ZAPI Controller

The efficient, almost noiseless, 8kHz(high frequency) controller provides smooth quiet operation and protection for low & high voltage, overheating and fault recording.



Drive Motor & Pump Motor

AC motors are designed for optimum reliability and efficiency while providing low noise levels. The AC motors are equipped with temperature sensors to ensure long motor life.



Excellent Gradeability Operation & Anti Roll Back

A powerful drive motor and four wheel configuration provide for exceptional stability and excellent gradeability. When restarting after stop on a slope, an anti-roll back function ensure operational safety.

	Travel Speed (MAX)	Gradeability (MAX)	
		unloaded	loaded
15BRP-9	7.3 mph	22%	13%
18BRP-9	7.3 mph	15%	13%
20BRP-9	7.3 mph	15%	12%
23BRP-9	7.3 mph	20%	11%

Optimized Ergonomics & Advanced Safety



■ Some of the photos may include optional equipment.



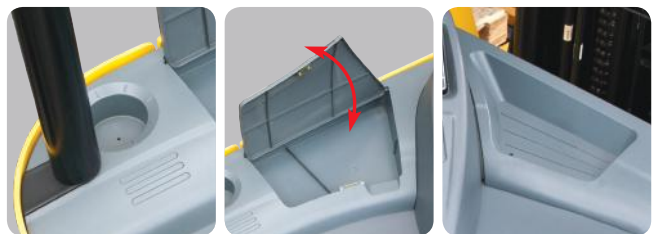
Steering Control

A steering control coupled with our Electric Power Steering system gives the operator exceptionally smooth and controlled steering for tight spaces.



Joystick Lever

Minimal operator effort is required for precise, safe and productive control. The lever's contoured design and cushion armrest provide added comfort during operation.



Cup Holder, Console Box & Storage Space

Additional storage compartments are located inside the operating space for operator's convenience.

A design based on human engineering relieves fatigue and increases operator efficiency.

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New High Visibility for Safe Operation

The operator is able to work with increased safety and accuracy due to a wider mast view.



Strong Overhead Guard

The safety overhead guard meets ISO 6055 and ANSI regulations and protects the operator during hazardous work.



Adjustable Backrest

A large and soft cushion pad is applied for operator's safety and comfort.



Non Slip Floor Mat

A heavy, vibration dampening, floor mat reduces operator fatigue and provides increased productivity.



Protection Fence

Protection fence installed between mast and operator room for safety.

*Tempered Glass Fence(Optional)



Camera & LCD monitor (optional)

A camera installed on fork side provides the operator with another excellent visibility. (Suggested for applications requiring 270" lift height and above.)



Durability, Easy Maintenance



Concentrated Fuse Box for Easy Inspection



DC-DC Converter



Hydraulic Return Oil Filter is Easily Accessible



Reliable ZAPI AC Controller



Electromagnetic Brake



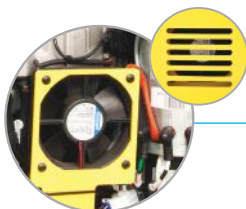
Emergency Switch



Grease Fillings



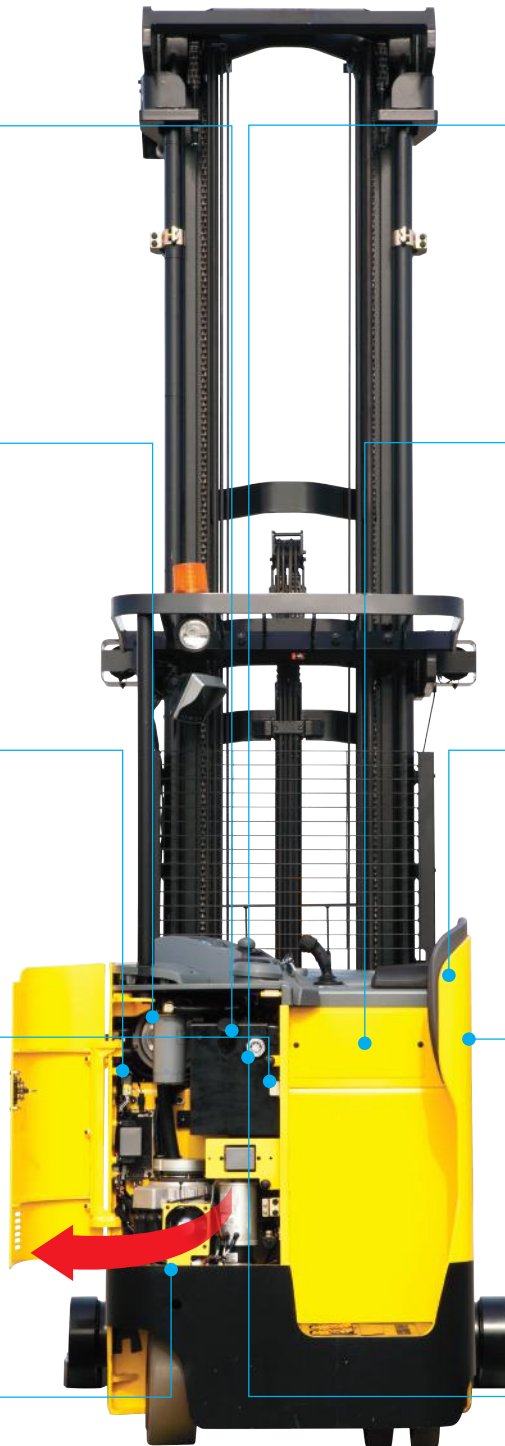
Easy Battery Replacement



Cooling Fan



Hydraulic Oil Level Gauge



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

15/18/20/23BRP-9

Advanced LCD Monitor

Steering Wheel Position and running direction

Turtle mode

Speed (Digital)

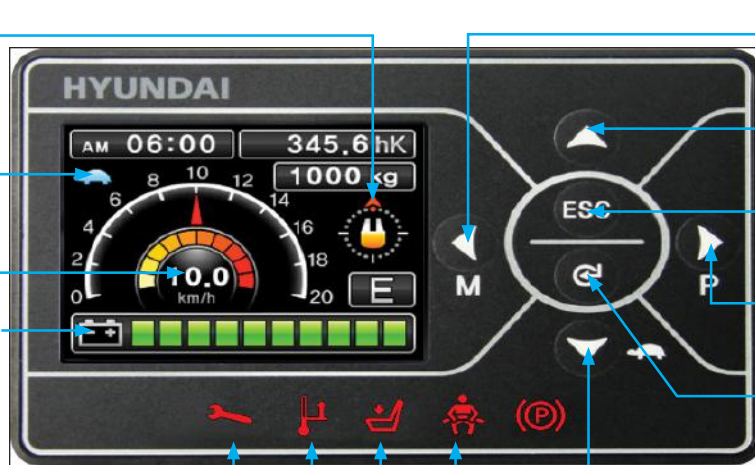
Battery's state of charge

Wrench warning lamp

Thermometer warning lamp

Seat warning lamp

Seat belt warning lamp



Key3 button
(Set down/Menu)

Key1 button
(roll up)

Key5 button
(ESC Out)

Key4 button
(Set up/Performance)

Key6 button
(Enter)

Key2 button
(Roll down/Turtle)

H (High) mode **N** (Normal) mode **E** (Economic) mode
Turtle mode

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 level, steer angle & travel direction, battery discharge indicator, hour meter & working mode. The load indicator displays the load weight and the height of fork in the monitor. The operator can select various performance modes to meet all working conditions. It is available multi-languages (maximum 11) for operator.

The monitor also displays information about operation error, system fault, battery level, hour meter plus other various functions. It enables the operator to maintain the forklift in optimum operating condition.



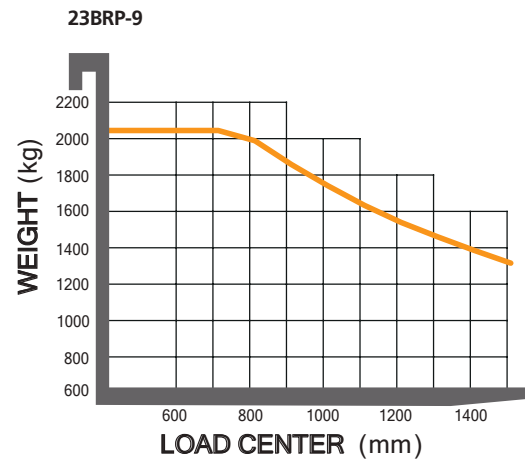
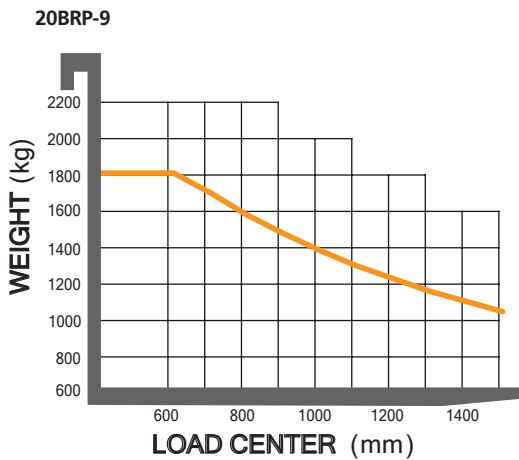
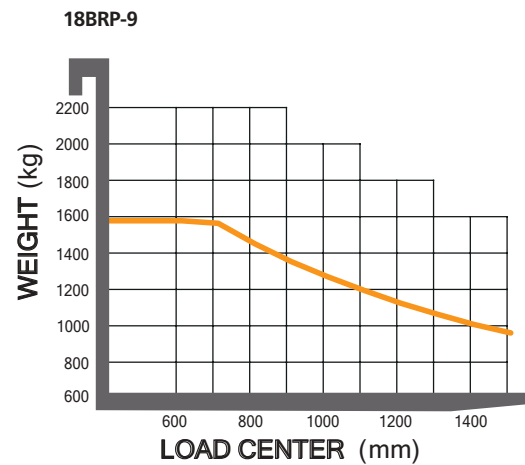
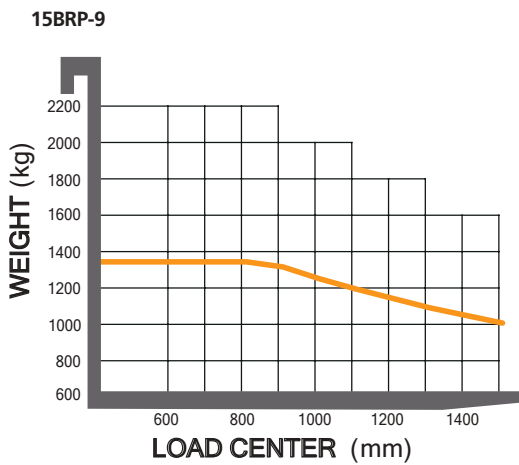
Monitor for load& height indicator

The load indicator displays the load weight in the monitor. The load sensor reduces the time to check loaded weight and the alarm alerts the driver when overloaded. The optional height indicator displays the height of fork in the monitor.

New 9 Series

Load Capacity

MODEL	MAST	BATTERY TYPE	OUTTRIGGER-I.D
15BRP-9	TF530	C	42 in
18BRP-9	TF530	A	42 in
20BRP-9	TF530	B	42 in
23BRP-9	TF530	C	42 in



Optional Items

Outrigger I.D (in)

- 34, 36, 38, 40, 44, 46, 48, 50

Integral Sideshift

- Max. 4.7 in

UL

- UL" EE"

Beacon Lamp

- Amber, Blue, Red

Rear Work Lamp

Fork Length (in)

- 15/18BRP: 35, 37, 39, 45, 47, 53, 59, 63

- 20/23BRP: 35, 39, 47, 53, 59, 65, 71

Fence

- Wire net type (STD)

- Tempered glass type (OPT)

Tire

- Vulkollan

Height Indicator

Cold Storage

Battery

- 600AH, 700AH, 800AH

Charger 3P

- 220/380V, 410V, 440V

15/18/20/23BRP-9

Mast Specification (15/23BRP-9)

Mast Type	Maximum Fork Height	Overall Height (Lowered)	Overall Height (Lifted) (With Backrest)	Free Lift Height (With Backrest)	Over Headguard Height	Min. Outtrigger -I.D	Truck Weight - w/o Battery								
							"A" Type B.C 14.5 in		"B" Type B.C 16.5 in		"C" Type B.C 18.3 in		"D" Type B.C 21.1 in		
							15BRP-9	23BRP-9	15BRP-9	23BRP-9	15BRP-9	23BRP-9	15BRP-9	23BRP-9	
	in	in	in	in	in	in	lb	lb	lb	lb	lb	lb	lb	lb	
3-Stage Full Free Lift	TF500	197	89	245	41	88	34	6,327	-	6,367	6,184	6,398	6,217	6,449	6,268
	*TF530	210	96	258	47	94	34	6,433	-	6,471	6,290	6,501	6,321	6,552	6,371
	TF610	240	107	288	59	94	34	6,783	-	6,823	6,640	6,854	6,673	6,905	6,724
	TF685	270	119	318	71	94	34	-	-	7,024	6,843	7,057	6,876	7,108	6,927
	TF760	300	131	348	83	94	34	-	-	7,227	7,046	7,260	7,076	7,311	7,128
	TF815	321	140	369	92	94	34	-	-	7,385	7,203	7,416	7,236	7,467	7,286
	TF865	341	149	389	101	94	40	-	-	-	-	7,591	7,408	7,641	7,458
	TF930	366	160	414	112	94	42	-	-	-	-	-	-	7,829	7,648
	TF1010	400	172	448	124	94	44	-	-	-	-	-	-	8,073	7,892

* STANDARD

Mast Specification (18/20BRP-9)

Mast Type	Maximum Fork Height		Overall Height (Lowered)		Overall Height (Lifted) (With Backrest)		Free Lift Height (With Backrest)		Over Headguard Height		Min. Outtrigger -I.D	Truck Weight - w/o Battery								
	18BRP-9		20BRP-9		18BRP-9		20BRP-9		18BRP-9			20BRP-9		"A" Type B.C 14.5 in		"B" Type B.C 16.5 in		"C" Type B.C 18.3 in		
	in	in	in	in	in	in	in	in	in	in		in	in	in	in	in	in	in	in	in
3-Stage Full Free Lift	TF500	197	197	89	89	245	245	41	41	88	88	34	34	5,725	-	5,765	5,765	-	5,796	
	*TF530	210	210	96	96	258	258	47	47	94	94	34	34	5,809	-	5,849	5,849	-	5,880	
	TF610	240	240	107	107	288	288	59	59	94	94	34	34	6,120	-	6,158	6,158	-	6,188	
	TF685	270	270	119	119	318	318	71	71	94	94	34	34	-	-	6,354	6,354	-	6,385	
	TF760	-	300	-	131	-	348	-	83	-	94	-	34	-	-	-	-	-	-	6,548
	TF815	-	321	-	140	-	369	-	92	-	94	-	34	-	-	-	-	-	-	6,673

* STANDARD

Battery Table

Battery Type	Battery Compartment Size (Length)	Battery Voltage	Max. Capacity (6 Hour Rate)	Battery Dimensions			Battery Weight
				Width (W)	Length (L)	Height (H)	
				in	in	in	lb
Type A	14.3	36	775	38.4	14.0	31.0	1,598
Type B	16.3	36	930	38.4	16.0	31.0	1,878
Type C	18.0	36	1085	38.4	17.7	31.0	2,280
Type D	20.7	36	1240	38.4	20.5	31.0	2,601

Load Tire Option Table

Mast Type	15BRP-9	18BRP-9	20BRP-9	23BRP-9
	ø5x4"	ø10.5x4"	ø5x4"	ø10.5x4"
TF500	●	-	●	●
TF530	●	-	●	●
TF610	●	-	●	●
TF685	●	-	●	●
TF760	●	-	-	●
TF815	●	-	-	●
TF865	●	-	-	-
TF930	●	-	-	-
TF1010	●	-	-	-

Right Angle Aisle Stacking - Zero Clearance

14.3" Battery Compartment and 42" Outtrigger I.D						14.3" Battery Compartment and 42" Outtrigger I.D						16.3" Battery Compartment and 42" Outtrigger I.D								
15BRP-9						18/20BRP-9						23BRP-9								
Pallet Length (in)	Pallet Width (in)					Pallet Length (in)	Pallet Width (in)					Pallet Length (in)	Pallet Width (in)							
		33	36	40	44		48		33	36	40		44	48		33	36	40	44	48
	36	92	92	91	91		90	36	84	84	83		83	82	36	87	87	86	86	85
	40	96	96	96	96		95	40	89	89	88		88	87	40	92	92	91	91	91
	44	101	101	100	100		100	44	93	93	93		92	92	44	97	96	96	96	95
48	105	105	105	104	104	48	98	97	97	97	97	48	101	101	100	100	100			

· Add 2.0 in for 16 in Battery Compartment
 · Add 3.5 in for 18 in Battery Compartment
 · Add 6.0 in for 21 in Battery Compartment

· Add 2.0 in for 16 in Battery Compartment
 · Add 3.5 in for 18 in Battery Compartment

· Add 2.0 in for 16 in Battery Compartment
 · Add 3.5 in for 18 in Battery Compartment

Technical Data for 15/18/20/23BRP-9

General Information

1	Manufacturer		HYUNDAI	HYUNDAI	HYUNDAI	HYUNDAI
2	Model	Manufacturer's Designation	15BRP-9	18BRP-9	20BRP-9	23BRP-9
3	Load Capacity * (1)	Max.	lb 3000	3,500	4,000	4,500
4	Load Center	Fork Face to Load CG	in 24	24	24	24
5	Power Unit	Type	Volt 36	36	36	36
9	Operator Type		Stand,D/ Reach	Stand,D/ Reach	Stand,D/ Reach	Stand,D/ Reach
7	Tire Type	Load / Drive / Caster	Poly./Poly./Poly.	Poly./Poly./Poly.	Poly./Poly./Poly.	Poly./Poly./Poly.
8	Wheels (x=driven)	Load / Drive / Caster	4 / 1x / 2	4 / 1x / 2	4 / 1x / 2	4 / 1x / 2

Basic Dimensions

10	Mast * (2)	Lift height - See Chart	(h1) in 210	210	210	210
11		Free Lift - See Chart	(h2) in 47	47	47	47
12	Fork	Overall Fork Width , Max.	(h1) in 30	30	30	30
		Overall Fork Width , Min.	(h1) in 13	13	13	13
		Tickness x width	in 1.5 x 3.9	1.5 x 3.9	1.7 x 3.9	1.7 x 3.9
		Length	in 41	41	41	41
15	Length to Fork Face * (3)	Battery Compartment * Type A"	(l1) in 58	50 * (4)	N/A	N/A
		Battery Compartment * Type B"	in 60	52	52 * (4)	54
		Battery Compartment * Type C"	in 61 * (4)	N/A	54	56 * (4)
		Battery Compartment * Type D"	in 64	N/A	N/A	58
16	Reach (Pantograph)	Stroke	(l2) in 43	23	23	23
17	Overall Height * (2)	Lowered -See Chart	(h3) in 95	95	95	95
18		Lifted -See Chart	in 258	258	258	258
19	Load Backrest Height		(h4) in 48	48	48	48
20	Outrigger ID	In 50mm increments (34~1,270)	(b2) in 42	42	42	42
21	Turning Radius	in standard battery compartment	(wa) in 73	66	67	72
22	Battery Compartment * (4)	Length	in 18	14	16	18

Performance

24	Speed - Travel	W/O Load	mph 7.3	7.3	7.3	7.3
25		Max. With Load	mph 7.3	7.3	7.3	7.3
26	Speed - Lift	Lift Speed, with Load	ft/s 1.05	1.02	0.95	0.89
27		Lift Speed, without Load	ft/s 1.48	1.48	1.51	1.51
28	Speed - Lower	Lower Speed, with Load	ft/s 1.64	1.64	1.64	1.64
29		Lower Speed, without Load	ft/s 1.48	1.48	1.48	1.48

Weights

34	Service weight	Including battery, less load, standard	lb 8,781	7,408	7,727	8,600
35	Axle loading	With Load, Front	lb 7,143	7,031	7,762	8,576
		With Load, Rear	lb 4,639	3,878	3,964	4,524
		W/O Load, Front	lb 3,512	2,879	3,045	3,406
		W/O Load, Rear	lb 5,269	4,528	4,683	5,194

Chassis

39	Tires/Wheels	Number, Load/Drive/Caster	4/1/2	4/1/2	4/1/2	4/1/2
40	Wheel Size	Front, Load Wheels	in ϕ 5.0 x 4.0	ϕ 5.0 x 4.0	ϕ 5.0 x 4.0	ϕ 5.0 x 4.0
		Rear, Drive Wheel(Steer)	in ϕ 13.6 x 5.5	ϕ 13.6 x 5.5	ϕ 13.6 x 5.5	ϕ 13.6 x 5.5
		Rear, Caster Wheel	in ϕ 7.0 x 2.9	ϕ 7.0 x 2.9	ϕ 7.0 x 2.9	ϕ 7.0 x 2.9
41	Wheelbase	Battery Compartment * Type A"	in 59.4	55.1 * (4)	N/A	N/A
		Battery Compartment * Type B"	in 61.5	57.1	57.1 * (4)	61.5
		Battery Compartment * Type C"	in 63.2 * (4)	N/A	58.8	61.6 * (4)
		Battery Compartment * Type D"	in 65.9	N/A	N/A	64.4
44	Ground Clearance	With 5.0" diameter load wheels	in 2.0	2.0	2.0	2.0
46	Service Brake	Type	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
47	Parking Brake	Type	Automatic Electric release	Automatic Electric release	Automatic Electric release	Automatic Electric release
	Steering	Type	Electric Steering	Electric Steering	Electric Steering	Electric Steering

Electric

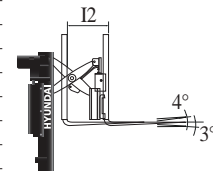
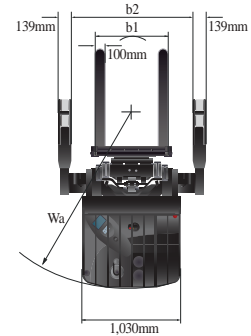
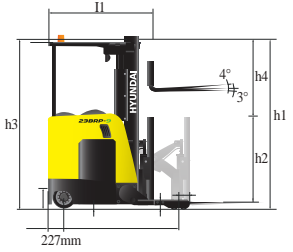
48	Battery	Type	Lead Acid	Lead Acid	Lead Acid	Lead Acid
		Max. Amp -standard	Ah 1,085	775	930	1,085
		Min. Weight -standard	lb 2,280	1,598	1,878	2,280
49	Motors, Controls	Drive Motor, 60 Min Rating	kw 6.8	6.8	6.8	6.8
		Hydraulic Motor, 15% Rating	kw 16	16	16	16
		Drive& Hydraulic Motor control Type	AC	AC	AC	AC

*(1) Contact factory. Capacity may be subject to derating at height.

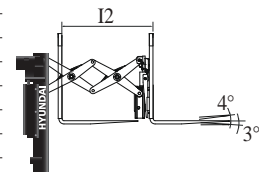
*(2) Spec data is based on the standard mast (TF530, maximum fork height 210mm)

*(3) Add 65mm with option side shift

*(4) Standard battery compartment (type A : 18BRP-9, type B: 20BRP-9, type C: 15/23BRP-9)



•18/20/23BRP-9



•15BRP-9



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