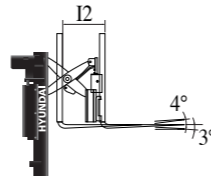
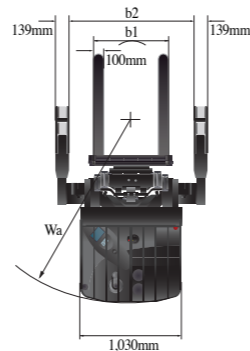
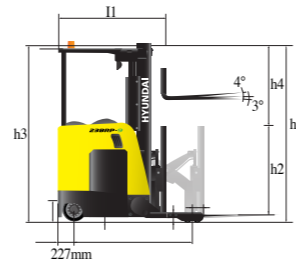


Technical Data for 15/18/20/23BRP-9

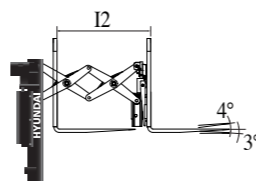
General Information							
1	Manufacturer		HYUNDAI	HYUNDAI	HYUNDAI	HYUNDAI	
2	Model	Manufacturer's Designation	15BRP-9	18BRP-9	20BRP-9	23BRP-9	
3	Load Capacity * (1)	Max.	kg	1,361	1,588	1,814	2,041
4	Load Center	Fork Face to Load CG	mm	610	610	610	610
5	Power Unit	Type	Volt	36	36	36	36
9	Operator Type		Stand,D/ Reach	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) mm	5,335	5,335	5,335	5,335
11		Free Lift - See Chart	(h2) mm	1,196	1,196	1,196	1,196
12	Fork	Overall Fork Width , Max.	(h1) mm	760	760	760	760
		Overall Fork Width , Min.	(h1) mm	330	330	330	330
		Thickness x width	mm	40 x 100	40 x 100	45 x 100	45 x 100
		Length	mm	1,050	1,050	1,050	1,050
15	Length to Fork Face * (3)	Battery Compartment * Type A*	(l1) mm	1,467	1,281 * (4)	N/A	N/A
		Battery Compartment * Type B*	mm	1,518	1,332	1,332 * (4)	1,370
		Battery Compartment * Type C*	mm	1,562 * (4)	N/A	1,376	1,414 * (4)
		Battery Compartment * Type D*	mm	1,632	N/A	N/A	1,484
16	Reach (Pantograph)	Stroke	(l2) mm	1,087	592	592	592
17	Overall Height * (2)	Lowered -See Chart	(h3) mm	2,415	2,415	2,415	2,415
18		Lifted -See Chart	mm	6,554	6,554	6,554	6,554
19	Load Backrest Height		(h4) mm	1,219	1,219	1,219	1,219
20	Outrigger ID	In 50mm increments (864-1,270)	(b2) mm	1,067	1,067	1,067	1,067
21	Turning Radius	in standard battery compartment	(wa) mm	1,856	1,665	1,712	1,819
22	Battery Compartment * (4)	Length	mm	457	362	413	457
Performance							
24	Speed - Travel	W/O Load	kph	11.8	11.8	11.8	11.8
25		Max. With Load	kph	11.8	11.8	11.8	11.8
26	Speed - Lift	Lift Speed, with Load	m/s	0.32	0.31	0.29	0.27
27		Lift Speed, without Load	m/s	0.45	0.45	0.46	0.46
28	Speed - Lower	Lower Speed, with Load	m/s	0.50	0.50	0.50	0.50
29		Lower Speed, without Load	m/s	0.45	0.45	0.45	0.45
Weights							
34	Service weight	Including battery, less load, standard	kg	3,983	3,360	3,505	3,901
35	Axle loading	With Load, Front	kg	3,240	3,189	3,521	3,890
		With Load, Rear	kg	2,104	1,759	1,798	2,052
		W/O Load, Front	kg	1,593	1,306	1,381	1,545
		W/O Load, Rear	kg	2,390	2,054	2,124	2,356
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	mm	ø127 x 101	ø127 x 101	ø127 x 101	ø127 x 101
		Rear, Drive Wheel(Steer)	mm	ø345 x 140	ø345 x 140	ø345 x 140	ø345 x 140
		Rear, Caster Wheel	mm	ø178 x 73	ø178 x 73	ø178 x 73	ø178 x 73
41	Wheelbase	Battery Compartment * Type A*	mm	1,510	1,399 * (4)	N/A	N/A
		Battery Compartment * Type B*	mm	1,561	1,450	1,450 * (4)	1,521
		Battery Compartment * Type C*	mm	1,605 * (4)	N/A	1,494	1,565 * (4)
		Battery Compartment * Type D*	mm	1,675	N/A	N/A	1,635
44	Ground Clearance	With 5.0" diameter load wheels	mm	51	51	51	51
46	Service Brake	Type		Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
47	Parking Brake	Type		Automatic	Automatic	Automatic	Automatic
				Electric release	Electric release	Electric release	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	kg	1,034	725	852	1,034
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.
*(3) Add 65mm with option side shift

*(2) Spec data is based on the standard mast (TF530, maximum fork height 5,335mm)
*(4) Standard battery compartment (type A : 18BRP-9, type B: 20BRP-9, type C: 15/23BRP-9)



•18/20/23BRP-9



•15BRP-9

15/18/20/23BRP-9

Electric Reach Trucks

MOVING YOU FURTHER

HYUNDAI HEAVY INDUSTRIES



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HEAVY INDUSTRIES

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2015. 06 Rev. 0

HYUNDAI
HEAVY INDUSTRIES

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.

Compact forklift with proven AC technology

- Maximum performance
- Comfortable operating room
- Curve control system
- Load indicator (optional)
- Camera(optional)
- Height indicator (optional)



■ Some of the photos may include optional equipment.

Superior Power & Optimal Performance

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

■ Some of the photos may include optional equipment.



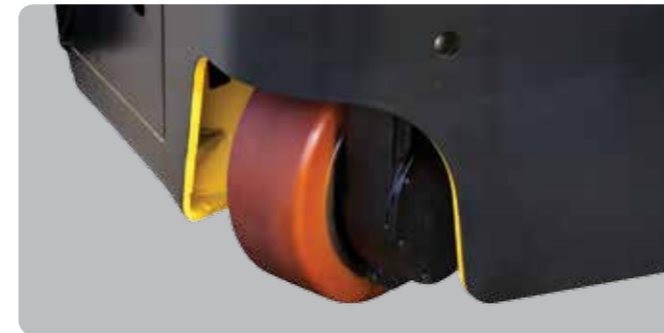
Minimum Turning Radius

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



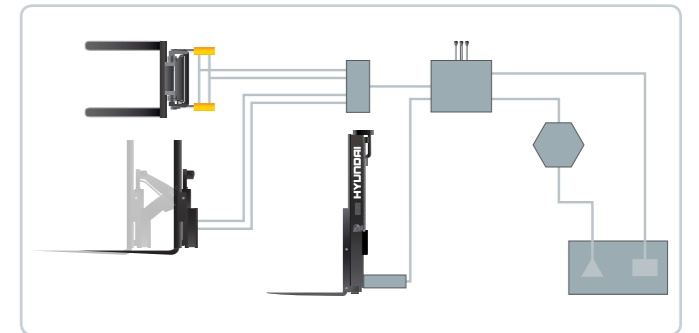
Versatile Reach Stroke

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



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.



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.

Energy Efficiency

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



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	11.8 Km/h	22%	13%
18BRP-9	11.8 Km/h	15%	13%
20BRP-9	11.8 Km/h	15%	12%
23BRP-9	11.8 Km/h	20%	11%

Optimised Ergonomics & Advanced Safety

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

15/18/20/23BRP-9



■Some of the photos may include optional equipment.



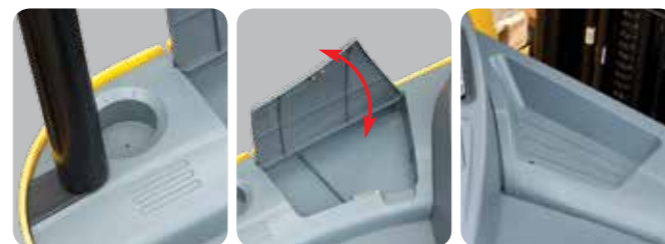
Steering Control

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.



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)



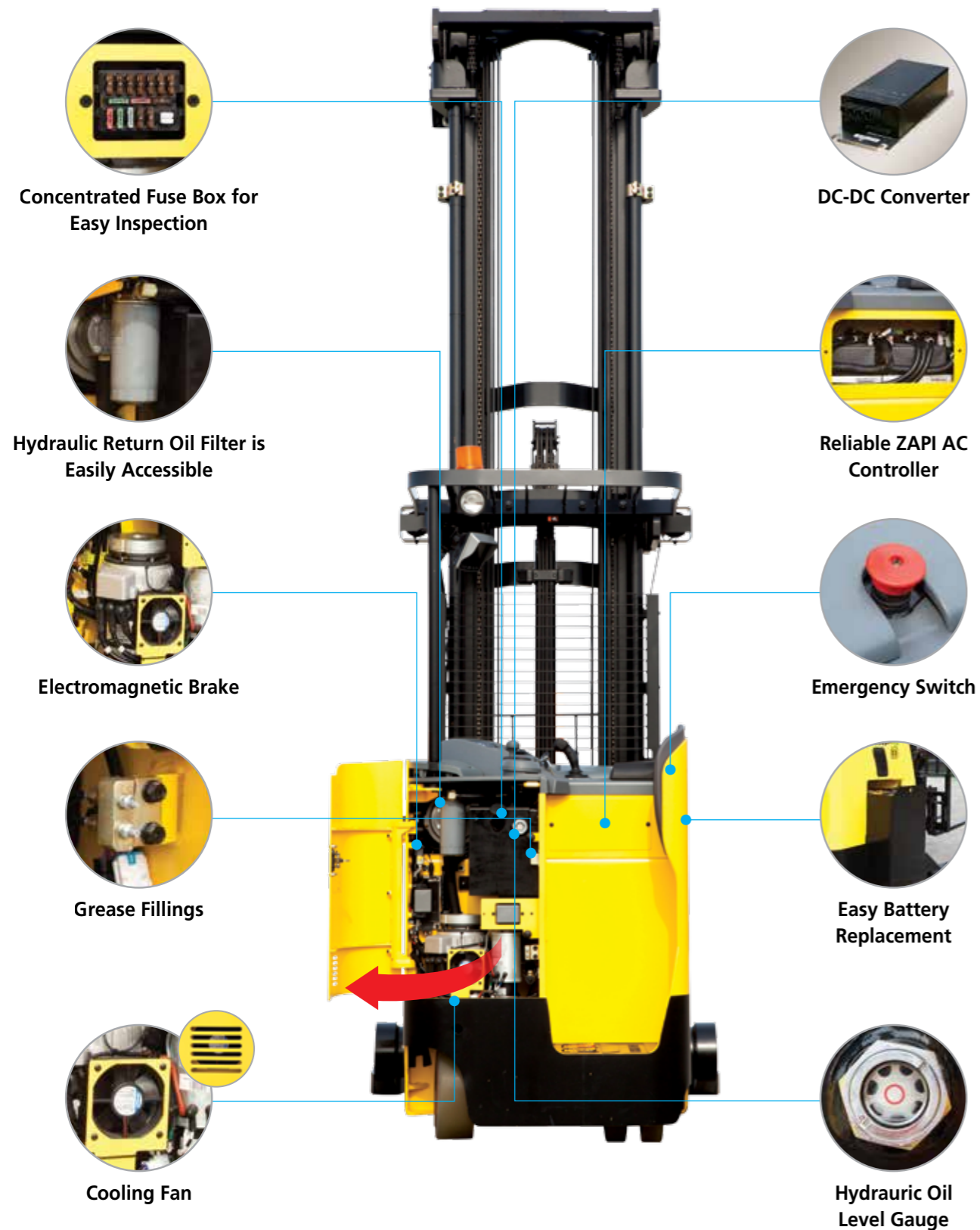
Camera & LCD monitor (optional)

A camera installed on fork side provides the operator with another excellent visibility. (apply to mast over TF700)

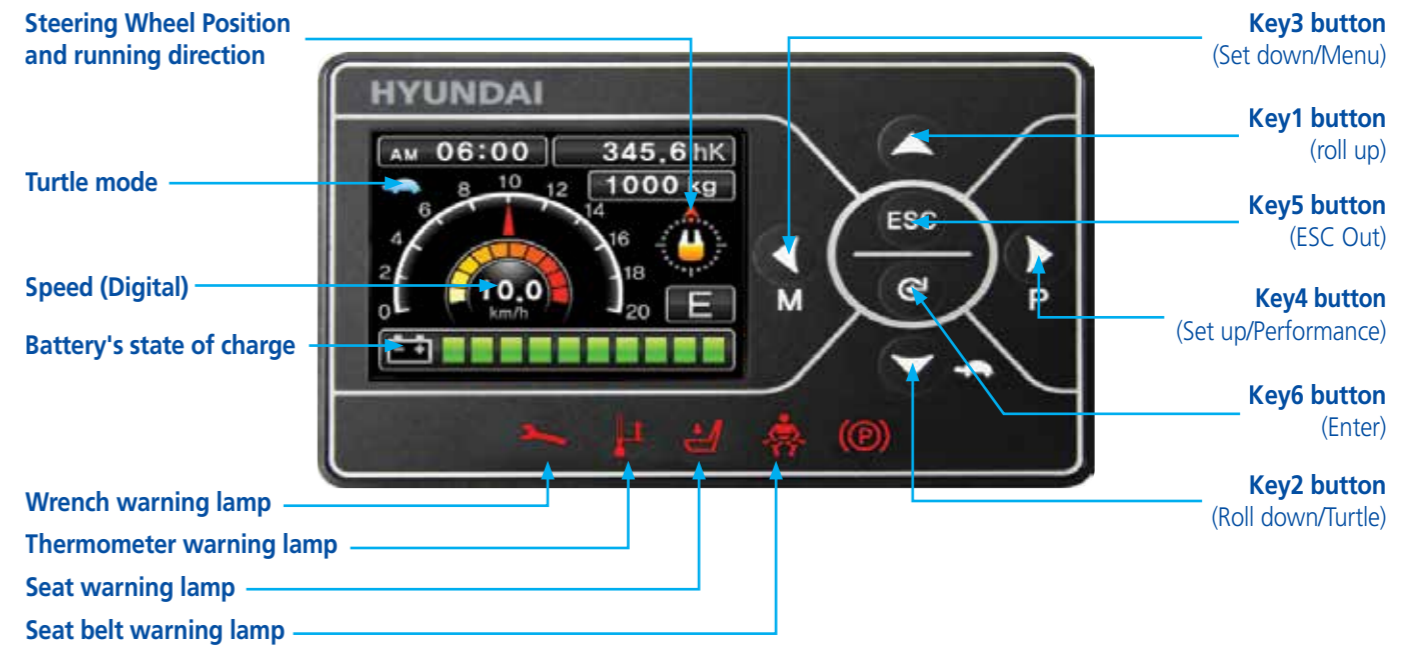
Durability, Easy Maintenance

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

15/18/20/23BRP-9



Advanced LCD Monitor



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 optional 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 (optional)

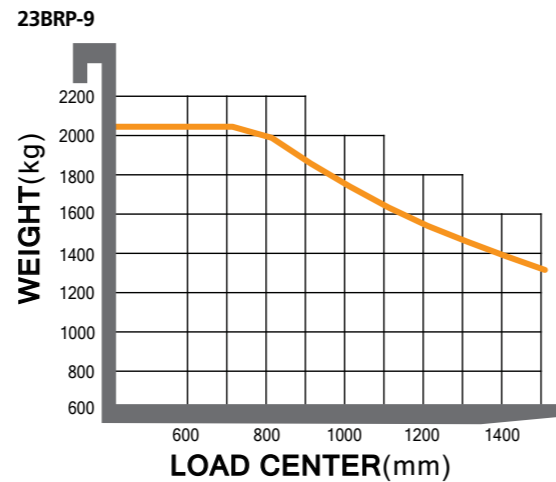
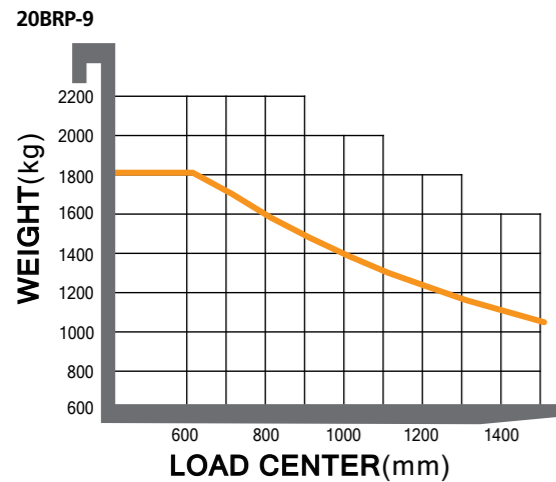
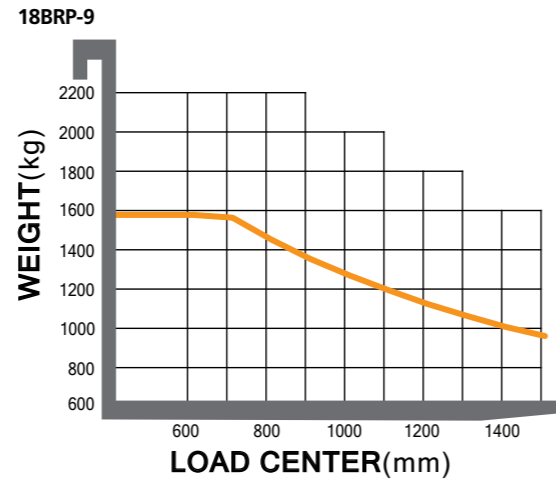
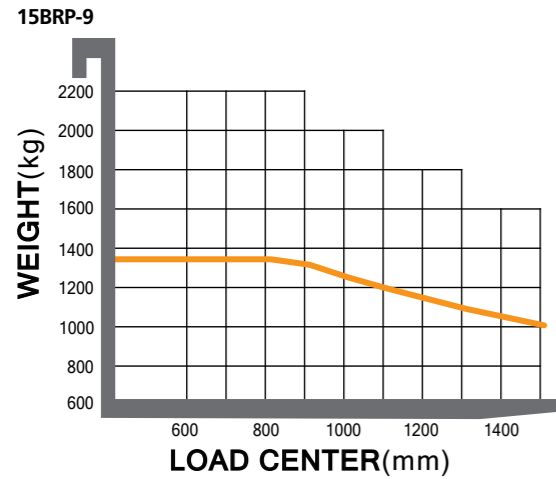
The optional load indicator displays the load weight in the monitor. The load sensor reduces the time to check loaded weight and the alarm alerts the driver when overloaded. The optional indicator displays the height of fork in the monitor.

New 9 Series

15/18/20/23BRP-9

Load Capacity

MODEL	MAST	BATTERY TYPE	OUTTRIGGER-I.D
15BRP-9	TF530	C	1066mm (42in)
18BRP-9	TF530	A	1066mm (42in)
20BRP-9	TF530	B	1066mm (42in)
23BRP-9	TF530	C	1066mm (42in)



Optional Items

Outrigger I.D (mm)
- 864, 914, 965, 1016, 1118, 1168, 1219, 1270

Integral Sideshift
- Max. 120mm

UL
- UL "EE"

Beacon Lamp
- Amber, Blue, Red

Rear Work Lamp
Fork Length (mm)

- 15/18BRP: 900, 950, 1000, 1150, 1200, 1350, 1500, 1600
- 20/23BRP: 900, 1000, 1200, 1350, 1500, 1650, 1800

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

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. Outrigger -I.D	Truck Weight - w/o Battery							
							"A" Type B.C 14.5" (362mm)		"B" Type B.C 16.5" (413mm)		"C" Type B.C 18.3" (457mm)		"D" Type B.C 21.1" (527mm)	
							15BRP-9	23BRP-9	15BRP-9	23BRP-9	15BRP-9	23BRP-9	15BRP-9	23BRP-9
TF500	5,011	2,260	6,230	1,041	2,240	864	2,870	-	2,888	2,805	2,902	2,820	2,925	2,843
*TF530	5,335	2,415	6,554	1,196	2,395	864	2,918	-	2,935	2,853	2,949	2,867	2,972	2,890
TF610	6,095	2,720	7,314	1,501	2,395	864	3,077	-	3,095	3,012	3,109	3,027	3,132	3,050
TF685	6,859	3,025	8,078	1,806	2,395	864	-	-	3,186	3,104	3,201	3,119	3,224	3,142
TF760	7,621	3,325	8,840	2,106	2,395	864	-	-	3,278	3,196	3,293	3,210	3,316	3,233
TF815	8,155	3,555	9,374	2,336	2,395	864	-	-	3,350	3,267	3,364	3,282	3,387	3,305
TF865	8,661	3,785	9,880	2,566	2,395	1,016	-	-	-	-	3,443	3,360	3,466	3,383
TF930	9,301	4,065	10,520	2,846	2,395	1,067	-	-	-	-	-	-	3,551	3,469
TF1010	10,161	4,370	11,380	3,151	2,395	1,118	-	-	-	-	-	-	3,662	3,580

* 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. Outrigger -I.D	Truck Weight - w/o Battery							
							"A" Type B.C 14.5" (362mm)		"B" Type B.C 16.5" (413mm)		"C" Type B.C 18.3" (457mm)		"D" Type B.C 21.1" (527mm)	
							18BRP-9	20BRP-9	18BRP-9	20BRP-9	18BRP-9	20BRP-9	18BRP-9	20BRP-9
TF500	5,011	2,260	6,230	1,041	2,240	864	864	2,597	-	2,615	2,615	-	2,629	
*TF530	5,335	2,415	6,554	1,196	2,395	864	864	2,635	-	2,653	2,653	-	2,667	
TF610	6,095	2,720	7,314	1,501	2,395	864	864	2,776	-	2,793	2,793	-	2,807	
TF685	6,859	3,025	8,078	1,806	2,395	864	864	-	-	2,882	2,882	-	2,896	
TF760	-	3,325	8,840	-	2,395	-	864	-	-	-	-	-	2,970	
TF815	-	3,555	9,374	-	2,395	-	864	-	-	-	-	-	3,027	

* 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)		Min. Weight		
				in	mm	in	mm	in	mm			lb
Type A	14.3	362	36	775	38.4	975	14.0	355	31.0	787	1598	725
Type B	16.3	413	36	930	38.4	975	16.0	406	31.0	787	1878	852
Type C	18.0	457	36	1085	38.4	975	17.7	450	31.0	787	2280	1034
Type D	20.7	527	36	1240	38.4	975	20.5	520	31.0	787	2601	1180

Load Tire Option Table

Mast Type	15BRP-9		18BRP-9		20BRP-9		23BRP-9	
	ø5x4" (ø127x 101mm)	ø10.5x4" (ø267x 101mm)	ø5x4" (ø127x 101mm)	ø10.5x4" (ø267x 101mm)	ø5x4" (ø127x 101mm)	ø10.5x4" (ø267x 101mm)	ø5x4" (ø127x 101mm)	ø10.5x4" (ø267x 101mm)
TF500	●	-	●	●	●	●	●	●
TF530	●	-	●	●	●	●	●	●
TF610	●	-	●	●	●	●	●	●
TF685	●	-	●	●	●	●	●	●
TF760	●	-	-	-	●	-	●	●
TF815	●	-	-	-	●	-	●	●
TF865	●	-	-	-	-	-	●	-
TF930	●	-	-	-	-	-	●	-
TF1010	●	-	-	-	-	-	●	-

Right Angle Aisle Stacking - Zero Clearance

362 Battery Compartment and 1,067 Outrigger I.D						362 Battery Compartment and 1,067 Outrigger I.D						413 Battery Compartment and 1,067 Outrigger I.D								
15BRP-9						18/20BRP-9						23BRP-9								
Pallet Length (mm)	Pallet Width (mm)					Pallet Length (mm)	Pallet Width (mm)					Pallet Length (mm)	Pallet Width (mm)							
		838	914	1,016	1,118		1,219		838	914	1,016		1,118	1,219		838	914	1,016	1,118	1,219
	914	2,333	2,326	2,317	2,307		2,298	914	2,137	2,129	2,117		2,106	2,094	914	2,217	2,208	2,196	2,196	2,171
	1,016	2,447	2,441	2,434	2,426		2,418	1,016	2,255	2,248	2,239		2,230	2,221	1,016	2,337	2,330	2,321	2,321	2,302
	1,118	2,558	2,553	2,546	2,539		2,533	1,118	2,368	2,363	2,355		2,348	2,340	1,118	2,452	2,446	2,438	2,438	2,422
1,219	2,665	2,661	2,655	2,649	2,643	1,219	2,477	2,472	2,466	2,460	2,453	1,219	2,561	2,556	2,550	2,550	2,536			

• Add 51mm for 413mm Battery Compartment
• Add 89mm for 457mm Battery Compartment
• Add 152mm for 527mm Battery Compartment

• Add 51mm for 413mm Battery Compartment
• Add 89mm for 457mm Battery Compartment

• Add 51mm for 457mm Battery Compartment
• Add 102mm for 527mm Battery Compartment