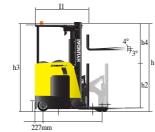
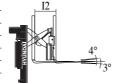
#### Technical Data for 15/18/20/23BRP-9

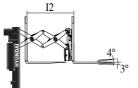
ener	al Information						
1	Manufacturer			HYUNDAI	HYUNDAI	HYUNDAI	HYUNDAI
2	Model	Manufacturer's Designation		15BRP-9	18BRP-9	20BRP-9	23BRP-9
3	Load Capacity * (1)	Max.	kg	1,361	1,588	1,814	2,041
4	Load Center	Fork Face to Load CG	mm	610	610	610	610
5	Power Unit	Туре	Volt	36	36	36	36
9	Operator Type			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
	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
		Tickness 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"	(I1) 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	(I2) mm	1,087	592	592	592
17	Overall Height * (2)	Lowered -See Chart	(h3) mm	2,415	2,415	2,415	2,415
18	Overall rieight (2)	Lifted -See Chart	mm	6,554	6,554	6,554	6,554
19	Load Backrest Height	Litted -See Chart	(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				-	1,712	1,819
22	-	in standard battery compartment	(wa) mm	1,856 457	1,665 362	413	457
	Battery Compartment * (4)	Length	mm	457	302	413	457
	mance	WIOLood	lenh	11.0	11.0	11.0	11.0
24	Speed - Travel	W/O Load	kph	11.8	11.8	11.8	11.8
25	6 1 1:6	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
eigh				1	1	1	
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
assi	s						
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	Туре		Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagneti Brake
47	Parking Brake	Туре		Automatic	Automatic	Automatic	Automatic
	J			Electric release	Electric release	Electric release	Electric release
	Steering	Туре		Electric Steering	Electric Steering	Electric Steering	Electric Steering
ectri	-	.,,,,,		2.cctic steering	2.ccurc steering	2.ccarc steering	2.ccci ic steeriii
		Type		Load Asid	Load Asid	Load Asid	ا معظ ۵ جندا
48	Battery	Type	Α.	Lead Acid	Lead Acid	Lead Acid	Lead Acid
		Max. Amp -standard	Ah	1,085	775	930	1,085
40	Mataux Cant 1	Min. Weight -standard	kg	1,034	725	852	1,034
19	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







•18/20/23BRP-9



•15BRP-9

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 5,335mm)

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

Drive& Hydraulic Motor control Type

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## 15/18/20/23BRP-9

Electric Reach Trucks

**MOVING YOU FURTHER** 



# 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)



## Superior Power & **Optimal Performance**

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

15/18/20/23BRP-9

■ Some of the photos may include optional equipment.



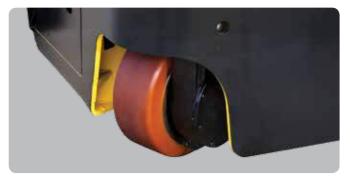
#### **Minimum Turning Radius**

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



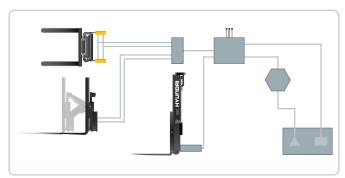
#### Versatile Reach Stroke

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.



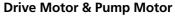
#### Energy Efficiency H(High) mode: 100%

N(Normal) mode : 110% E(Economic) mode : 120%



#### **High Technology ZAPI Controller**

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



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	Gradeability (MAX)						
	(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%					

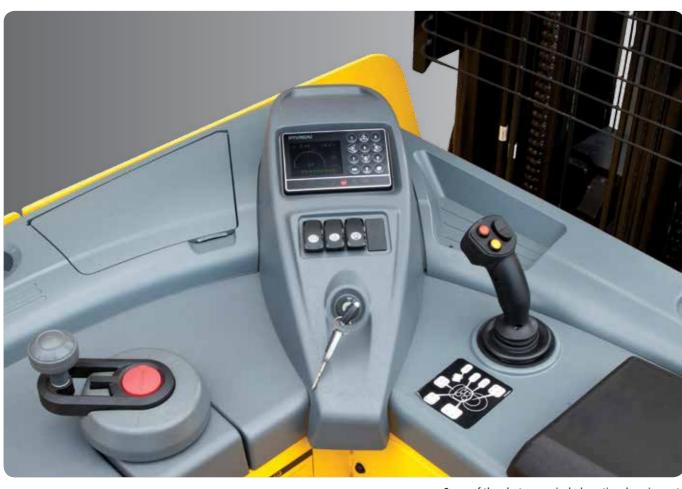
04 HYUNDAI FORKLIFT 05

### 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



#### 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)

06 HYUNDAI FORKLIFT HYUNDAI FORKLIFT 07

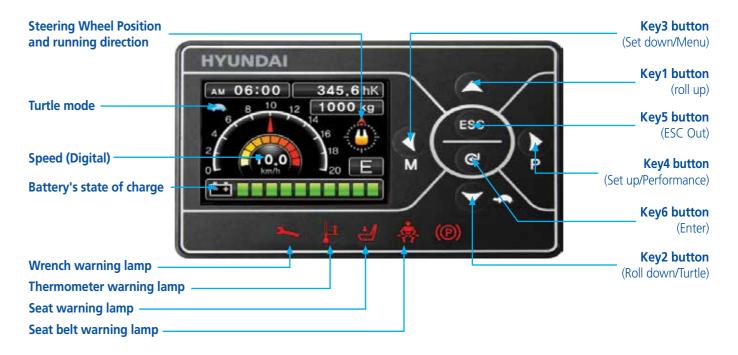
#### 15/18/20/23BRP-9

## Durability, **Easy Maintenance**

**Concentrated Fuse Box for DC-DC Converter Easy Inspection** Reliable ZAPI AC **Hydraulic Return Oil Filter is Easily Accessible** Controller **Electromagnetic Brake Emergency Switch Grease Fillings Easy Battery** Replacement **Cooling Fan Hydrauric Oil** Level Gauge

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

#### **Advanced LCD Monitor**



 ${f H}$  (High) mode  ${f N}$  (Normal) mode  ${f E}$  (Economic) mode  ${f Turtle\ mode}$ 

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.



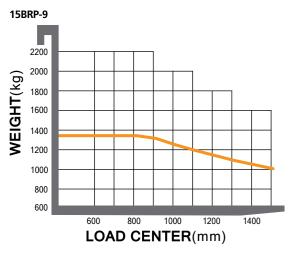
#### Monitor for load& height indicator (optional)

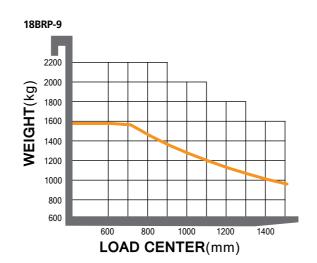
The optional load indicator displays the load weight in the monitor. The load sensor reduces the time to check loaded weight and the alarm alerts the driver when overloaded. The optional indicator displays the height of fork in the monitor.

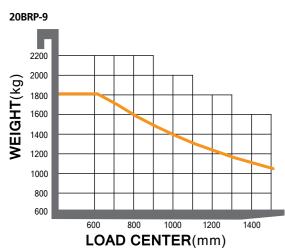
### New 9 Series

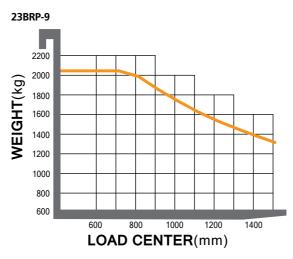
#### **Load Capacity**

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

#### 15/18/20/23BRP-9

#### Mast Specification (15/23BRP-9)

				Overall	Free Lift	_				Truck V	Veight	- w/o l	Battery		
Mast Type		Maximum Fork Height	Overall Height (Lowered)	Height (Lifted) (With Backrest)	Height (With Backrest)	Over Headguard Height	Min. Outtrigger -I.D	"A" Type B.C 14.5" (362mm)		B.C 16.5" (413mm)		"C" Type B.C 18.3" (457mm)		B.C 2	Type 21.1" mm)
		15/23BRP-9	15/23BRP-9	15/23BRP-9	15/23BRP-9	15/23BRP-9	15/23BRP-9	15BRP-9	23BRP-9	15BRP-9	23BRP-9	*15BRP-9	*23BRP-9	15BRP-9	23BRP-9
		mm	mm	mm	mm	mm	mm	kg	kg	kg	kg	kg	kg	kg	kg
	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,		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
3-Stage	TF685	6,859	3,025	8,078	1,806	2,395	864 -		-	3,186	3,104	3,201	3,119	3,224	3,142
Full Free	TF760	7,621	3,325	8,840	2,106	2,395	864	-	-	3,278 3,	3,196	3,293 3,21	3,210	3,316	3,233
Lift	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		2,566	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

\* STANDARD

#### Mast Specification (18/20BRP-9)

Mast Type		Maximum Fork Height		Overall Height		Overall Height t (Lifted) (With Backrest)		Free Lift Height (With Backrest)		Over Headguard Height		Min. Outtrigger -I.D		"A" Typo		Weight - w/o B  "B" Type B.C 16.5"  (413mm)		"C" B.C 1	Type  8.3"  mm)
		18BRP-9	20BRP-9	18BRP-9	20BRP-9	18BRP-9	20BRP-9	18BRP-9	20BRP-9	18BRP-9	20BRP-9	18BRP-9	20BRP-9	*18BRP-9	20BRP-9	18BRP-9	*20BRP-9	18BRP-9	20BRP-9
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg	kg	kg	kg	kg
	TF500	5,011	5,011	2,260	2,260	6,230	6,230	1,041	1,041	2,240	2,240	864	864	2,597	-	2,615	2,615	-	2,629
2 (+	*TF530	5,335	5,335	2,415	2,415	6,554	6,554	1,196	1,196	2,395	2,395	864	864	2,635	-	2,653	2,653	-	2,667
3-Stage		6,095	6,095	2,720	2,720	7,314	7,314	1,501	1,501	2,395	2,395	864	864	2,776	-	2,793	2,793	-	2,807
Full Free Lift	TF685	6,859	6,859	3,025	3,025	8,078	8,078	1,806	1,806	2,395	2,395	864	864	-	-	2,882	2,882	-	2,896
	TF760	-	7,621	-	3,325	-	8,840	-	2,106	-	2,395	-	864	-	-	-	-	-	2,970
	TF815	-	8,155	-	3,555	-	9,374	-	2,336	-	2,395	-	864	-	-	-	-	-	3,027

#### **Battery Table**

Battery		tery rtment	Battery	Max. Capacity		Bat Wei	tery ight					
Type	-	ze gth)	Voltage	(6 Hour Rate)		Width (W)		gth _)	Hei (H	_		in. ight
	in	mm	Volt	Ah	in	mm	in	mm	in	mm	lb	kg
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	15B	RP-9	18B	RP-9	20B	RP-9	23B	RP-9
Туре	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 Bat	362 Battery Compartment and 1,067 Outrigger I.D							362 Battery Compartment and 1,067 Outrigger I.D 4					413 Battery Compartment and 1,067 Outrigger I.D								
		1	5BRP-9	)			18/20BRP-9					23BRP-9									
	Pallet Width (mm)								Pa	llet Wi	dth (mı	m)				Pallet Width (mm)					
Pallet		838	914	1,016	1,118	1,219	Pallet		838	914	1,016	1,118	1,219	Pallet		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	
Length (mm)	1,016	2,447	2,441	2,434	2,426	2,418	Length (mm)	1,016	2,255	2,248	2,239	2,230	2,221	Length (mm)	1,016	2,337	2,330	2,321	2,321	2,302	
(11111)	1,118	2,558	2,553	2,546	2,539	2,533	(111111)	1,118	2,368	2,363	2,355	2,348	2,340	(111111)	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	

<sup>·</sup> Add 51mm for 413mm Battery Compartmen

<sup>·</sup> Add 89mm for 457mm Battery Compartment · Add152mm for 527mm Battery Compartment

<sup>-</sup> Add 51mm for 413mm Battery Compartment · Add 89mm for 457mm Battery Compartment

<sup>·</sup> Add 51mm for 457mm Battery Compartment · Add 102mm for 527mm Battery Compartment