

Technical Data for 15/18/20BCS-9

Identification

1.1 Manufacturer	HYUNDAI	HYUNDAI	HYUNDAI	
1.2 Manufacturer's model designation	15BCS-9	18BCS-9	20BCS-9	
1.3 Drive: electric (battery or mains),diesel, petrol, fuel gas	electric	electric	electric	
1.4 Type of operation:hand,pedestrian,standing,seated,order-picker	standing	standing	standing	
1.5 Load capacity / Rated load	kg(lb)	1,361(3,000)	1,588(3,500)	1,814(4,000)
1.6 Load center distance	c mm(in)	600(24)	600(24)	600(24)
1.8 Load distance, center of drive axle to fork	x mm(in)	330(12.9)	330(12.9)	330(12.9)
1.9 Wheelbase	y mm(in)	1,152(45.3)	1,152(45.3)	1,222(48.1)

Weights

2.1 Service weight	kg(lb)	3,862(8,514)	4,074(8,981)	4,211(9,283)
2.2 Axle loading, loaded front / rear	kg(lb)	4,444(9,797) /779(1,717)	4,976(10,970) /719(1,585)	5,236(11,603) /767(1,680)
2.3 Axle loading, unloaded front / rear	kg(lb)	1,987(4,380) /1,875(4,133)	2,001(4,411) /2,046(4,510)	2,066(4,554) /2,145(4,729)

Wheels, Chassis

3.1 Tires ; Pneumatic(P), Solid(S), Non-marking(N)	V, PE	V, PE	V, PE	
3.2 Tires size, front	18x7x12.12	18x7x12.12	18x7x12.12	
3.3 Tires size, rear	10x5x6.5	10x5x6.5	10x5x6.5	
3.5 Number of wheels front / rear (x=driven wheels)	2x1/Dual	2x1/Dual	2x1/Dual	
3.6 Track width, front	mm(in)	889(35)	889(35)	889(35)
3.7 Track width, rear	mm(in)	181(7.12)	181(7.12)	181(7.12)

Basic Dimensions

4.1 Mast / fork carriage tilt forward / backward (α / β)	degrees	5/5	5/5	5/5
4.2 Lowered mast height	h1 mm(in)	2,098(82.6)	2,098(82.6)	2,098(82.6)
4.3 Free lift	h2 mm(in)	881(34.7)	881(34.7)	881(34.7)
4.4 Lift height	h3 mm(in)	4,740(186.6)	4,740(186.6)	4,740(186.6)
4.5 Extended mast height	h4 mm(in)	5,957(234.5)	5,957(234.5)	5,957(234.5)
4.7 Overhead guard height (cabin)	h5 mm(in)	2,235(87.9)	2,235(87.9)	2,235(87.9)
4.8 Seat height / standing height rel. to SIP	h7 mm(in)	200(7.8)	200(7.8)	200(7.8)
4.12 Coupling height	h10 mm(in)	-	-	-
4.19 Overall length	l1 mm(in)	2,777(109.3)	2,777(109.3)	2,847(112.0)
4.20 Length to face of forks	l2 mm(in)	1,727(67.99)	1,727(67.99)	1,797(70.7)
4.21 Overall width	b1 mm(in)	1,067(42.0)	1,067(42.0)	1,067(42.0)
4.22 Fork dimensions(hook type)	l/s mm(in)	40x100x1,050 (1.6x3.9x41.3)	40x100x1,050 (1.6x3.9x41.3)	40x100x1,050 (1.6x3.9x41.3)
4.23 Fork carriage ISO 2328, class / type A,B		2A	2A	2A
4.24 Fork-carriage width	b3 mm(in)	950(37.4)	950(37.4)	950(37.4)
4.31 Ground clearance, loaded, under mast	m1 mm(in)	63(2.4)	6363(2.4)	6363(2.4)
4.32 Ground clearance, centre of wheelbase	m2 mm(in)	100(3.9)	100(3.9)	100(3.9)
4.33 Aisle width for pallets 1,000x1,200 crossways (LxW)	Ast mm(in)	3,056(120.3)	3,056(120.3)	3,126(123.0)
4.34 Aisle width for pallets 800x1,200 lengthways (WxL)	Ast mm(in)	3,178(125.1)	3,178(125.1)	3,248(127.8)
4.35 Turning radius	Wa mm(in)	1,397(55)	1,397(55)	1,467(57.7)
4.36 Smallest pivot point distance		0	0	0

Performance Data

5.1 Travel speed, unloaded	km/h(mph)	12.1(7.5)	12.1(7.5)	12.1(7.5)
5.2 Lift speed, loaded/unloaded	mm/s(ft/min)	360(70.9)/560(110.2)	340(66.9)/560(110.2)	330(65.0)/560(110.2)
5.3 Lowering speed, loaded/unloaded	mm/s(ft/min)	480(94.4)/430(84.6)	480(94.4)/430(84.6)	480(94.4)/430(84.6)
5.6 Max. Drawbar pull, loaded	N(lb)	10,231(2,300)	10,231(2,300)	10,231(2,300)
5.7 Gradient performance, loaded	%	15	15	15
5.9 Acceleration time, loaded/unloaded(10m)	sec	-	-	-
5.10 Service brake		Electric release	Electric release	Electric release

Motor

6.1 Drive motor rating S2 60 min (ul ES / ul EE)	kW(hp)	4.3/4.0(5.7)	4.3/4.0(5.7)	4.3/4.0(5.7)
6.2 Lifting motor rating at S3 15% (ul ES / ul EE)	kW(hp)	14(18.8)	14(18.8)	14(18.8)
6.4 Battery voltage, nominal capacity K5	V/Ah	36/930	36/1,085	36/1,240
6.5 Battery weight	kg(lb)	898(1979.8)	1,034(2279.6)	1,176(2592.6)
6.7 Battery compartment dimensions L / W / H	mm	975/456/800 (38.38/17.95/31.49)	975/456/800 (38.38/17.95/31.49)	975/526/800 (38.38/20.71/31.49)

Other Details

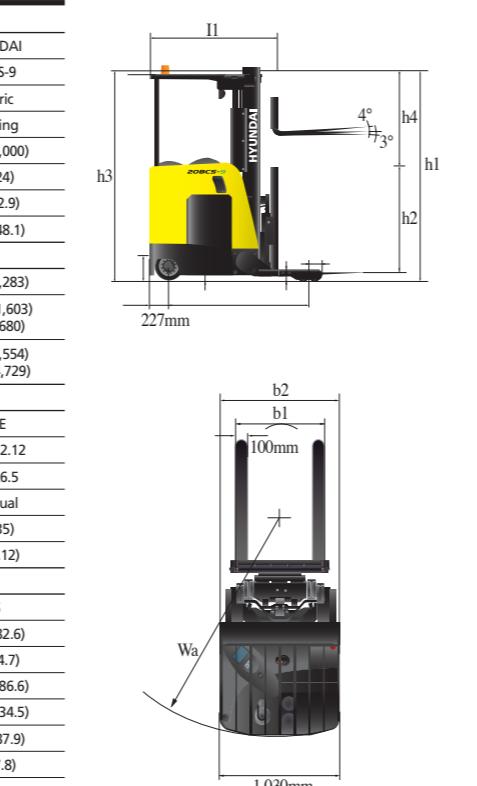
8.1 Type of drive control	AC	AC	AC	
8.2 Operating pressure, system / attach	bar(psi)	170(2,465)/140(2,030)	170(2,465)/140(2,030)	170(2,465)/140(2,030)
8.3 Oil volume for attachment	l/min(GPM-US)	20(5.28)	20(5.28)	20(5.28)

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15/18/20BCS-9

Stand up Counterbalance Trucks

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Your satisfaction is our priority!

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

The newly designed stand up counter balanced 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)



■ Some of the photos may include optional equipment.

Superior Power & Optimal Performance

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

15/18/20BCS-9



Curve control

Curve Control limits travel speed based on turning radius, reducing speed for a smooth, precise turning operation for the driver.



Minimum Turning Radius

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

■ Some of the photos may include optional equipment.



Auto parking system

1. Electric Disc Brakes provide emergency stopping and parking for the truck.
2. Parking Brake actuated automatically when the pedal released.
3. The pre-adjusted brake assemblies require no maintenance.



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.



On Demand Steering

Whenever operator use the steering, hydraulic motor is activated to reduce steering noise and energy consumption.



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 ensures operational safety.

	Travel Speed (MAX)	Gradeability (MAX)	
		unloaded	loaded
15BCS-9	12.1 Km/h	15%	15%
18BCS-9	12.1 Km/h	15%	15%
20BCS-9	12.1 Km/h	15%	15%

Optimised Ergonomics & Advanced Safety

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

15/18/20BCS-9



■ Some of the photos may include optional equipment.



Adjustable Armrest and Large Backrest

Adjustable armrest and large backrest with soft material cushion are applied for operator's safety and comfort.



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.



New High Visibility for Safe Operation

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



Cup Holder, Console Box & Storage Space

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



Strong Overhead Guard

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



Non Slip Floor Mat

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



Blue Spot Lamp (optional)



Accessory Switches



12V Power Socket

Durability, Easy Maintenance

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

15/18/20BCS-9



Advanced LCD Monitor

Steering Wheel Position
and running direction

Turtle mode

Speed (Digital)

Battery's state of charge

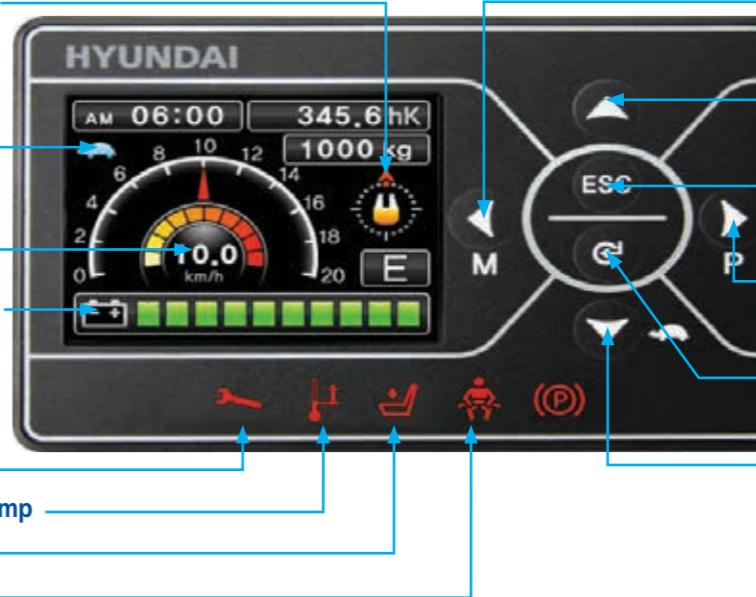
Wrench warning lamp

Thermometer warning lamp

Deadman warning lamp

Seat belt warning lamp

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



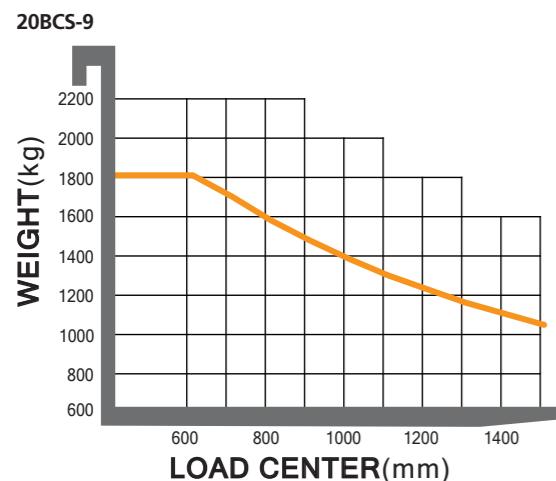
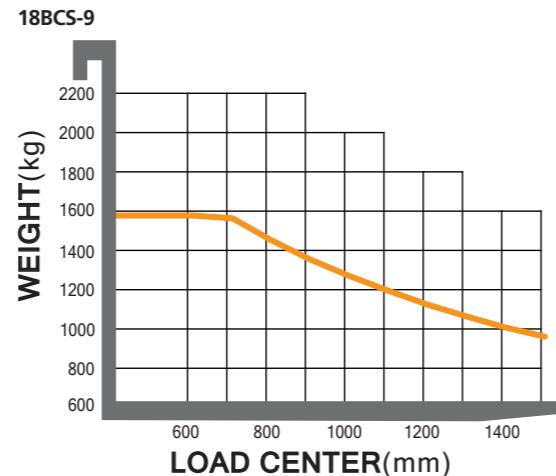
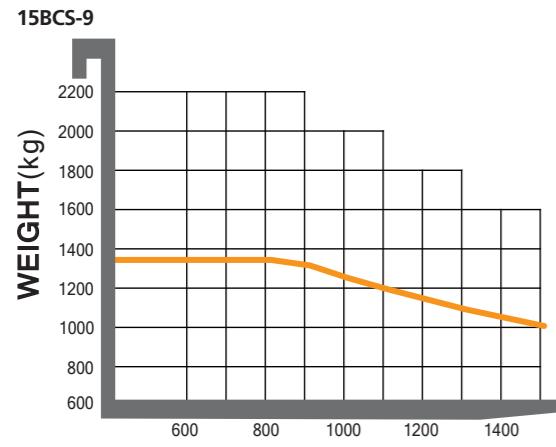
The LCD color monitor with 3.5 inch graphic smart display allows the operator to easily and efficiently control the machine. The monitor provides information about speed & accelerator level, steer angle & travel direction, battery discharge indicator, hour meter & working mode. The optional load indicator 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.



New 9 Series

15/18/20BCS-9

Load Capacity



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

Optional Items

Integral Sideshift

- Max. 120mm

UL

- UL "EE"

Beacon Lamp

- Amber, Blue , Red

Rear Work Lamp

Fork Length (mm)

- 15/18BCS: 900, 950, 1000, 1050, 1150, 1350, 1500, 1600

- 20BCS: 900, 1000, 1200, 1350, 1500, 1650, 1800

Fence

- Wire net type (STD)
- Tempered glass type (OPT)

Tire

- Vulkollan

Cold Storage

Battery

- 700AH

Charger 3P

- 220/380V, 410V, 440V

LED work lamp

Blue spot

Mast Specification (15BCS-9)

Mast Type	Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle		Load Capacity without side shift		Load Capacity with side shift		Truck Weight (Unloaded)	
	in	mm			With Load Backrest	Without Load Backrest	Fwd	Bwd	600 mm LC	600 mm LC	Single Tire	Single Tire				
	in	mm	in	mm	deg	deg	lb	kg	lb	kg	lb	kg	lb	kg		
3-Stage Full Free Lift	TF370	147.2	3740	68.8	1748	20.9	531	48.9	1243	5	5	3000	1361	3000	1361	8366 3795
	* TF400	159.1	4040	72.8	1848	24.8	631	52.9	1343	5	5	3000	1361	3000	1361	8408 3814
	TF430	170.9	4340	76.7	1948	28.8	731	56.8	1443	5	5	3000	1361	3000	1361	8450 3833
	TF450	178.7	4540	80.6	2048	32.7	831	60.7	1543	5	5	3000	1361	3000	1361	8492 3852
	TF470	186.6	4740	82.6	2098	34.7	881	62.7	1593	5	5	3000	1361	3000	1361	8514 3862
	TF500	198.4	5040	86.5	2198	38.6	981	66.7	1693	5	5	3000	1361	2930	1330	8556 3881
	TF550	218.1	5540	94.4	2398	46.5	1181	74.5	1893	5	5	3000	1361	2820	1280	8640 3919
	TF600	237.8	6040	102.3	2598	54.4	1381	82.4	2093	5	5	2600	1180	2420	1100	8774 3980

Mast Specification (18BCS-9)

Mast Type	Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle		Load Capacity without side shift		Load Capacity with side shift		Truck Weight (Unloaded)	
	in	mm			With Load Backrest	Without Load Backrest	Fwd	Bwd	600 mm LC	600 mm LC	Single Tire	Single Tire				
	in	mm	in	mm	deg	deg	lb	kg	lb	kg	lb	kg	lb	kg		
3-Stage Full Free Lift	TF370	147.2	3740	68.8	1748	20.9	531	48.9	1243	5	5	3500	1587	3500	1587	8774 3980
	* TF400	159.1	4040	72.8	1848	24.8	631	52.9	1343	5	5	3500	1587	3480	1580	8816 3999
	TF430	170.9	4340	76.7	1948	28.8	731	56.8	1443	5	5	3500	1587	3410	1550	8858 4018
	TF450	178.7	4540	80.6	2048	32.7	831	60.7	1543	5	5	3500	1587	3350	1520	8900 4037
	TF470	186.6	4740	82.6	2098	34.7	881	62.7	1593	5	5	3500	1587	3300	1500	8922 4047
	TF500	198.4	5040	86.5	2198	38.6	981	66.7	1693	5	5	3440	1560	3240	1470	8964 4066
	TF550	218.1	5540	94.4	2398	46.5	1181	74.5	1893	5	5	3300	1500	3130	1420	9048 4104
	TF600	237.8	6040	102.3	2598	54.4	1381	82.4	2093	5	5	2770	1260	2770	1180	9182 4165

Mast Specification (20BCS-9)

Mast Type	Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle		Load Capacity without side shift		Load Capacity with side shift		Truck Weight (Unloaded)	
	in	mm			With Load Backrest	Without Load Backrest	Fwd	Bwd	600 mm LC	600 mm LC	Single Tire	Single Tire				
	in	mm	in	mm	deg	deg	lb	kg	lb	kg	lb	kg	lb	kg		
3-Stage Full Free Lift	TF370	147.2	3740	68.8	1748	20.9	531	48.9	1243	5	5	4000	1814	4000	1814	9136 4144
	* TF400	159.1	4040	72.8	1848	24.8	631	52.9	1343							