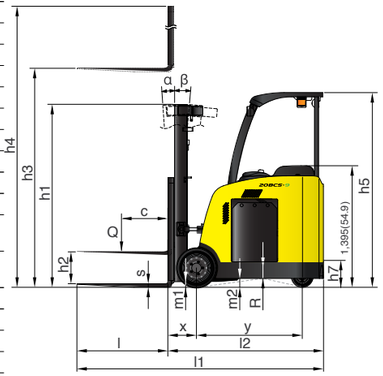
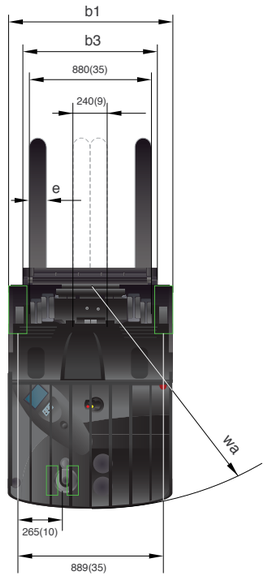
Technical Data for 15/18/20BCS-9

Identification					
1.1	MANUFACTURER (ABBREVIATION)		HYUNDAI	HYUNDAI	HYUNDAI
1.2	MANUFACTURER'S TYPE 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)	1,360(3,000)	1,590(3,500)	1,810(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)	4,047(8,922)	4,211(9,283)
2.2	AXLE LOADING, LOADED FRONT/REAR	kg(lb)	4,442(9,792) /780(1,719)	4,872(10,740) /765(1,686)	5,256(11,587) /765(1,686)
2.3	AXLE LOADING, UNLOADED FRONT/REAR	kg(lb)	1,987(4,380) /1,875(4,133)	2,001(4,411) /2,046(4,511)	2,066(4,554) /2,145(4,729)
Wheels, Chassis					
3.1	TIRES : SOLID RUBBER, SUPERELASTIC, PNEUMATIC, POLYURETHANE		V, N, PE	V, N, PE	V, N, PE
3.2	TIRE SIZE, FRONT		18x7x12 1/8	18x7x12 1/8	18x7x12 1/8
3.3	TIRE SIZE, REAR		Φ254x127	Φ254x127	Φ254x127
3.5	WHEELS, NUMBER FRONT / REAR (X = DRIVEN WHEELS)		2x/1Dual	2x/1Dual	2x/1Dual
3.6	TREAD, FRONT	mm(in)	889(35)	889(35)	889(35)
3.7	TREAD, REAR	mm(in)	181(7.12)	181(7.12)	181(7.12)
Basic Dimensions					
4.1	TILT OF MAST/FORK CARRIAGE FORWARD/BACKRWARD	α/β degrees	5/5	5/5	5/5
4.2	HEIGHT, MAST LOWERED	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	HEIGHT, MAST EXTENDED	h4 mm(in)	5,957(234.5)	5,957(234.5)	5,957(234.5)
4.7	HEIGHT OF OVERHEAD GUARD (CABIN)	h5 mm(in)	2,235(87.9)	2,235(87.9)	2,235(87.9)
4.8	SEAT HEIGHT / STAND HEIGHT REL. TO SIP	h7 mm(in)	200(7.8)	200(7.8)	200(7.8)
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	l/e/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, BELOW MAST, LOADED	m1 mm(in)	63(2.4)	63(2.4)	63(2.4)
4.32	GROUND CLEARANCE, CENTER OF WHEELBASE	m2 mm(in)	100(3.9)	100(3.9)	100(3.9)
4.34.1	AISLE WIDTH FOR PALLETS 1000 X 1200 CROSSWAYS (L X W)	Ast mm(in)	3,056(120.3)	3,056(120.3)	3,126(123.0)
4.34.2	AISLE WIDTH OF PALLETS 800 X 1200 CROSSWAYS (W X L)	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)
Performance Data					
5.1	TRAVEL SPEED, LOADED / 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)	12,748(2,866)	12,748(2,866)	10,231(2,300)
5.8	MAX. GRADEABILITY, LOADED	%	15	15	15
5.10	SERVICE BRAKE		Electric release	Electric release	Electric release
Motor					
6.1	DRIVE MOTOR RATING S2 60 MIN	kW(hp)	4.3(5.7)	4.3(5.7)	4.3(5.7)
6.2	LIFT MOTOR RATING AT S3 15%	kW(hp)	14(18.8)	14(18.8)	14(18.8)
6.3	BATTERY ACC. TO DIN 43531/35/36 A, B, C, NO		Lead-Acid	Lead-Acid	Lead-Acid
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY K5	V/Ah	36/1,085	36/1,085	36/1,240
6.5	BATTERY WEIGHT	kg(lb)	1,034(2,279.6)	1,034(2,279.6)	1,176(2,592.6)
6.7	BATTERY COMPARTMENT DIMENSIONS L/W/H	mm(in)	984/456/814 (38.74/17.95/32.04)	984/456/814 (38.74/17.95/32.04)	984/526/814 (38.74/20.7/32.04)
Other Details					
8.1	TYPE OF DRIVE CONTROL		AC	AC	AC
8.2	OPERATING PRESSURE, SYSTEM / ATTACHMENTS	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 ATTACHMENTS	ℓ/min(GPM-US)	25(7)	25(7)	25(7)
8.4	SOUND LEVEL AT THE DRIVER'S EAR ACCORDING TO DIN 12053	dB (A)	70	70	70
8.5	HEIGHT OF BATTERY ROLLER	R mm(in)	183(7)	183(7)	183(7)





- The Spectifications in this brochure are subject to change for option.
- The options in this brochure are subject to change to improve the performance of the forklift.

HYUNDAI MATERIAL HANDLING

Head Office (Sales office)
First tower, 55, Bundang-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea

PLEASE CONTACT

www.hyundai-mh.com 2020. 09 Rev. 3

15/18/20BCS-9

Stand up Counterbalance Trucks

MOVING YOU FURTHER

HYUNDAI MATERIAL HANDLING



HYUNDAI MATERIAL HANDLING

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 with comfortable driving, increased productivity and easy maintenance.

Compact forklift with proven AC technology

- Maximum performance
- Comfortable operating room
- Curve control system
- Load indicator (optional)
- Water proof controller
- EHPS Steering system for higher efficiency
- Ergonomically designed operating system
- Self-Diagnosis by display system
- Auto tilt leveling (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.

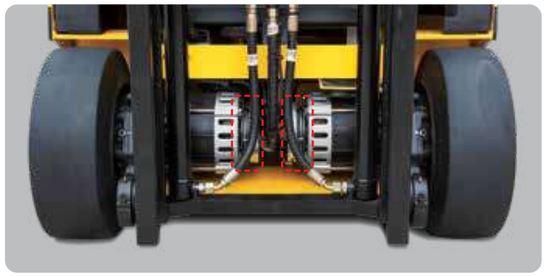


Minimum Turning Radius

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



■ Some of the photos may include optional equipment.



Dual Drive Motor & Auto Parking System

Powerful and efficient dual drive motor enables superior thoughput with faster speed. Electric disc brakes provide emergency stopping and parking for the truck. Parking brake actuated automatically when the pedal released. The pre-adjusted brake assemblies require no maintenance.



On Demand Steering

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



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 and 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 dual drive motor provides 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
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.



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.



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 provides comfort operation.



Non Slip Floor Mat



Blue Spot Lamp (optional)



Accessary Switches



12V Power Socket

Best Convenience &
Easy Maintenance

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

15/18/20BCS-9

BCS-9 is designed for uptime. All components have been arranged for ease and efficient maintenance.

Battery Disconnector



Grease Fillings





Steering System



SBR Sensing Switch

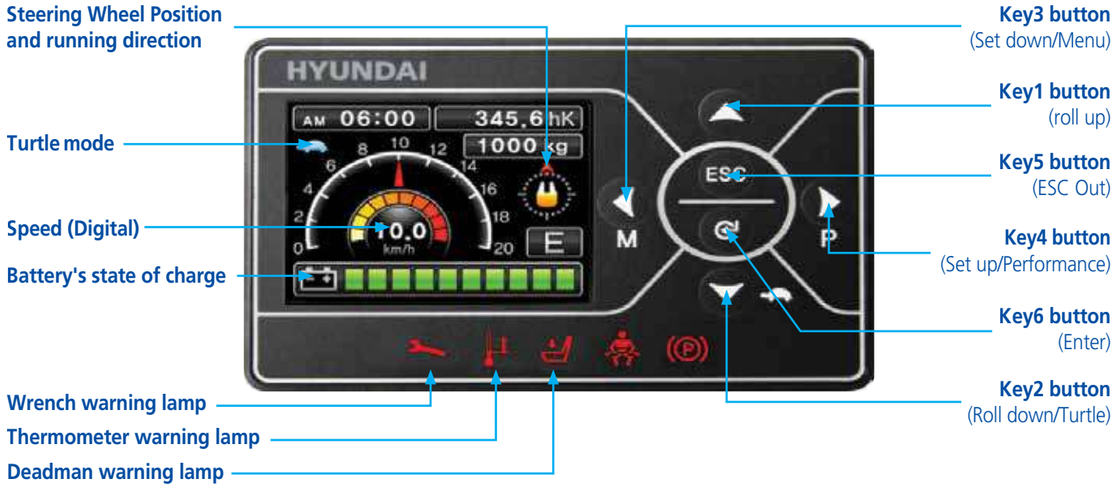


Tank for Filter for Easy Replacement



Reliable ZAPI AC Controller

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. System fault is also displayed to keep the forklift in the optimum condition. The operator can select various performance modes to meet all working conditions. It is available multi-languages (maximum 11) for operator is available for global use.

Easy battery replacement

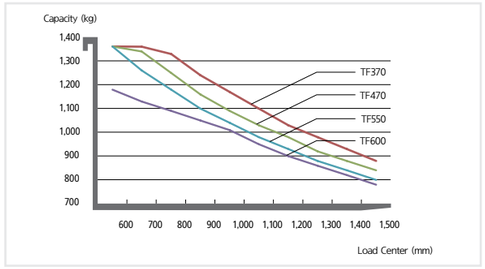
The battery compartment is equipped with a side battery removal assembly for easy replacement.

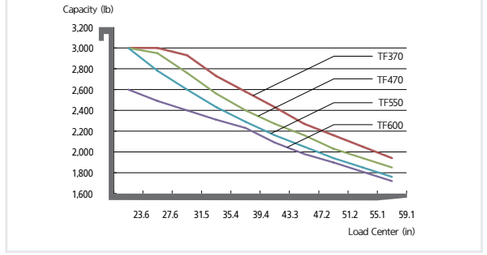


New **9 Series**

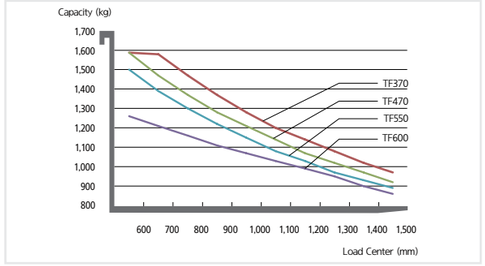
Load Capacity

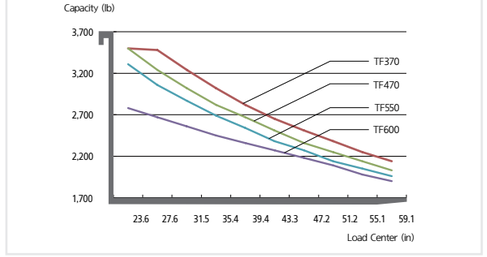
15BCS-9



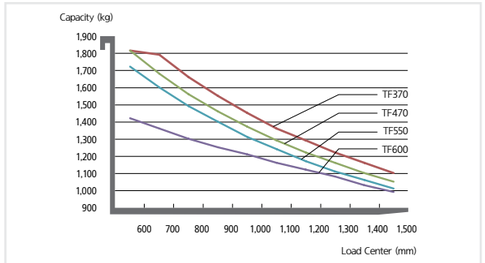


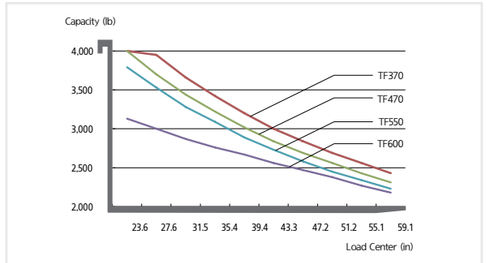
18BCS-9





20BCS-9





Optional Items

Integral Sideshift
- Max. 120mm

UL "EE" rating

Beacon Lamp (Amber)

Rear Work Lamp

Fork Length (mm)
- 900 / 950 / 1,000 / 1,050 / 1,150 / 1,350 / 1,500 / 1,600

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

Tire
- Vulkollan

Cold Storage (for -30° cold working environments)

Battery
- 700AH (15/18BCS-9), 800AH(20BCS-9)

3 Phase Charger
- 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)	
						With Load Backrest		Without Load Backrest		Fwd	Bwd	24 in LC	600mm LC	24 in LC	600mm LC		
		in	mm	in	mm	in	mm	in	mm	deg	deg	lb	kg	lb	kg	lb	kg
3-Stage Full Free Lift	TF370	147.2	3,740	68.8	1,748	20.9	531	48.9	1,243	5	5	3,000	1,360	3,000	1,360	8,366	3,795
	TF400	159.1	4,040	72.8	1,848	24.8	631	52.9	1,343	5	5	3,000	1,360	3,000	1,360	8,408	3,814
	TF430	170.9	4,340	76.7	1,948	28.8	731	56.8	1,443	5	5	3,000	1,360	3,000	1,360	8,450	3,833
	TF450	178.7	4,540	80.6	2,048	32.7	831	60.7	1,543	5	5	3,000	1,360	3,000	1,360	8,492	3,852
	* TF470	186.6	4,740	82.6	2,098	34.7	881	62.7	1,593	5	5	3,000	1,360	3,000	1,360	8,514	3,862
	TF500	198.4	5,040	86.5	2,198	38.6	981	66.7	1,693	5	5	3,000	1,360	2,930	1,330	8,556	3,881
	TF550	218.1	5,540	94.4	2,398	46.5	1,181	74.5	1,893	5	5	3,000	1,360	2,820	1,280	8,640	3,919
	TF600	237.8	6,040	102.3	2,598	54.4	1,381	82.4	2,093	5	5	2,600	1,180	2,420	1,100	8,774	3,980

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)	
						With Load Backrest		Without Load Backrest		Fwd	Bwd	24 in LC	600mm LC	24 in LC	600mm LC		
		in	mm	in	mm	in	mm	in	mm	deg	deg	lb	kg	lb	kg	lb	kg
3-Stage Full Free Lift	TF370	147.2	3,740	68.8	1,748	20.9	531	48.9	1,243	5	5	3,500	1,590	3,500	1,590	8,774	3,980
	TF400	159.1	4,040	72.8	1,848	24.8	631	52.9	1,343	5	5	3,500	1,590	3,480	1,580	8,816	3,999
	TF430	170.9	4,340	76.7	1,948	28.8	731	56.8	1,443	5	5	3,500	1,590	3,410	1,550	8,858	4,018
	TF450	178.7	4,540	80.6	2,048	32.7	831	60.7	1,543	5	5	3,500	1,590	3,350	1,520	8,900	4,037
	* TF470	186.6	4,740	82.6	2,098	34.7	881	62.7	1,593	5	5	3,500	1,590	3,300	1,500	8,922	4,047
	TF500	198.4	5,040	86.5	2,198	38.6	981	66.7	1,693	5	5	3,440	1,560	3,240	1,470	8,964	4,066
	TF550	218.1	5,540	94.4	2,398	46.5	1,181	74.5	1,893	5	5	3,300	1,500	3,130	1,420	9,048	4,104
	TF600	237.8	6,040	102.3	2,598	54.4	1,381	82.4	2,093	5	5	2,770	1,260	2,770	1,180	9,182	4,165

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)	
						With Load Backrest		Without Load Backrest		Fwd	Bwd	24 in LC	600mm LC	24 in LC	600mm LC		
		in	mm	in	mm	in	mm	in	mm	deg	deg	lb	kg	lb	kg	lb	kg
3-Stage Full Free Lift	TF370	147.2	3,740	68.8	1,748	20.9	531	48.9	1,243	5	5	4,000	1,810	4,000	1,810	9,136	4,144
	TF400	159.1	4,040	72.8	1,848	24.8	631	52.9	1,343	5	5	4,000	1,810	3,960	1,800	9,178	4,163
	TF430	170.9	4,340	76.7	1,948	28.8	731	56.8	1,443	5	5	4,000	1,810	3,880	1,770	9,220	4,182
	TF450	178.7	4,540	80.6	2,048	32.7	831	60.7	1,543	5	5	4,000	1,810	3,830	1,740	9,261	4,201
	* TF470	186.6	4,740	82.6	2,098	34.7	881	62.7	1,593	5	5	4,000	1,810	3,790	1,720	9,284	4,211
	TF500	198.4	5,040	86.5	2,198	38.6	981	66.7	1,693	5	5	3,920	1,780	3,725	1,690	9,325	4,230
	TF550	218.1	5,540	94.4	2,398	46.5	1,181	74.5	1,893	5	5	3,790	1,720	3,590	1,630	9,409	4,268
	TF600	237.8	6,040	102.3	2,598	54.4	1,381	82.4	2,093	5	5	3,130	1,420	2,950	1,340	9,544	4,329