

MOVING YOU FURTHER

**15-18**  
**20BT-9U**



Some of the photos may include optional equipment.

# Your satisfaction is our priority!

## Compact forklift with proven AC technology

Hyundai introduces the new BT-9U series 3 wheel battery forklift. The BT-9U series features upgrades to the previous series, including new technology that offers higher efficiency, durability and operator convenience.

### Efficiency

- Application of Electric Power Steering System to improve energy efficiency
- Powerful and Sophisticated driving performance due to Dual drive motor
- Light and Precise Fingertip control (OPT)
- Comfortable and efficient Direction & Horn switch (OPT)

### Durability

- Application of ZF Drive System (Drive Axle + Drive motor + Electric Parking Brake) to improve reliability and durability of drive system
- Advanced reliability of information processing due to Dual micom - ZAPI controller
- Semipermanent Oil Cooled Disc Brake
- IP43 Motor & IP65 Controller

### Safety

- Curve Control feature reduces driving speed when turning through a curve
- Anti-Roll Back feature prevents roll back on an incline
- Electric Auto Parking Brake
- Operator Presence Sensing System

### Easy service

- Side Battery Extraction for easy change out
- Self Diagnostics function
- Continental SC18 Solid Tires for longer wear
- Brake oil reservoir with level sensor for easy inspection



Power & Performance

# High Efficiency & Optimal Performance

An efficient, smooth running and compact design provides enhanced performance and outstanding productivity.



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## Applied ZF Drive Package (Drive Axle + Drive Motor + Electric Parking Brake) to Dual Drive system UPGRADE

ZF is a top global power train manufacturer, well known for reliability and durability. The ZF dual drive system ensures excellent drawbar pull and short turning radius, and brushless AC motors are virtually maintenance free. An automatic electric parking brake is also applied, which is safe and requires no physical operation.



## Energy consumption Improvement

The energy consumption has been significantly reduced due to newly applied EPS system and ZF drive package. This adoption is expected to decrease the costs and increase the operating time.

Previous Model (20BT-9 : 585Ah) : 251 minutes (100%)

Upgraded Model (20BT-9U : 585Ah) : 304 minutes (121%)

※The figures above are based on Hyundai's test results for a single charge cycle and may differ from actual working conditions.

UPGRADE



### EPS (Electric Power Steering) System

EPS system consisting of steering sensor, controller, and steering motor operates only when steering wheel is turned. So unnecessary energy consumption and noise were eliminated. Also, speed-sensitive steering wheel allows the driver to set the steering as desired.

UPGRADE



### New ZAPI Controller

The new ZAPI AC controller with dual micom and made by ZAPI monitors the dual signals and detects faults. So it is possible to control the forklift quickly and securely. Also, capacity of drive controller has been increased for driving performance.

UPGRADE



### Auto fork leveling system (OPT)

In order to improve productivity the auto fork leveling system by automatically stopping when the forks are level.



### Continental SC18 Solid Tire

Continental SC18 solid tires are equipped as a standard. It ensures low energy consumption and long service life.



### Vehicle Performance optimized for working condition

This function optimizes the performance of vehicle for the purpose of work, such as speed of operation, maximum working time and operator's proficiency.

**H mode** : High performance mode with fast driving speed and fast lifting speed

**N mode** : Normal mode with balanced performance and energy consumption

**E mode** : Economy mode maximizing battery life



Easy & Comfort

# Optimized Ergonomics & Fast and Easy Maintenance

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



## Spacious operating space

The newly designed operating space was made for more space, a wider field of view and operator comfort.



### Comfortable suspension seat

An attractive and adjustable seat, based on a human engineering design, provides great comfort. Also, the angle of the armrest can be adjusted to reduce the fatigue of the driver.

- Grammer Seat
- Adjustable suspension stiffness based on the driver's weight (45~170kg)
- ELR type seat belt standard
- Heater and Backrest extension (OPT)



### Directional & horn switch on lever (OPT)

Electronic directional control and secondary horn are mounted to the hydraulic lift lever for quick and precise maneuvering.



### Finger tip control levers (OPT)

Ergonomically designed fingertip control levers for improved operator comfort and productivity. The armrest can be adjusted for operator comfort.



### Turtle Mode

When selecting the turtle mode while working in narrow and congested workplace, the travel speed is reduced at a preset speed.

## 4.3 inch LCD color monitor

The LCD color monitor with 4.3 inch graphic smart display allows the operator to identify speed, travel direction, and operating hours and control the machine efficiently. The load indicator displays the load weight in the monitor. The operator can select various performance modes to meet all working conditions. Multilanguage (maximum 12) is available.



### Advanced LCD Monitor

- |  |                              |
|--|------------------------------|
| ① Speed (Digital)                              | ⑦ Turtle/Scroll down         |
| ② Steering wheel position and travel direction | ⑧ ESC/Back                   |
| ③ Battery discharge indicator                  | ⑨ Enter                      |
| ④ Scroll up                                    | ⑩ Low brake oil warning lamp |
| ⑤ Menu/Scroll Left                             | ⑪ Error warning lamp         |
| ⑥ Performance/Scroll right                     | ⑫ High temp warning lamp     |

### UPGRADE



### Easy battery replacement

Guide bar installed on the wall helps the battery to be moved to the right position smoothly when removing and mounting.



### Brake oil reservoir with level sensor

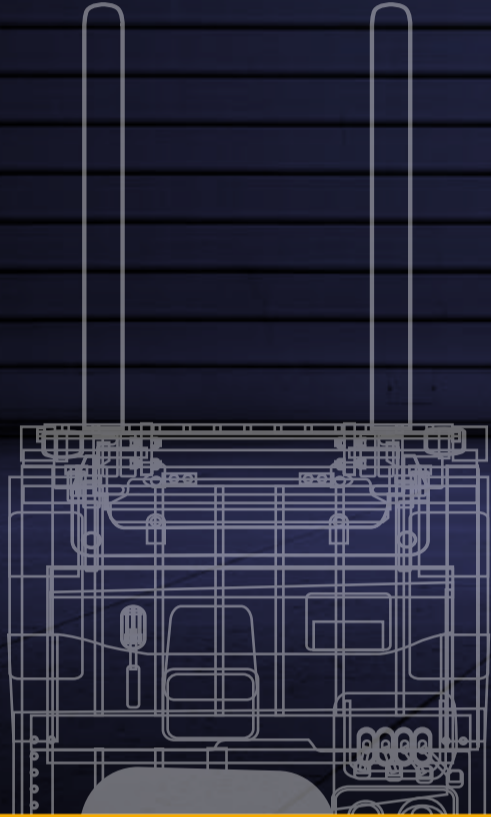
The enhanced brake oil reservoir, located in the upper left dash is equipped with an electronic level sensor and easily visible through the monitor.



Secure & Safety

# Advanced Safety

The safely designed driver's space makes your operating more comfortable.



EXCELLENT VISIBILITY

ADVANCED SAFETY



Some of the photos may include optional equipment.

## Excellent visibility for safe operation

Optimized lift cylinder arrangement provides the operator with wider visibility. The panoramic mirror expands the driver's view when backing up.



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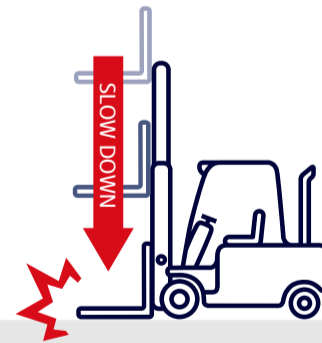
## Safety features

The adoption of a high-sensitivity sensor and advanced safety system can prevent the safety accidents.



### Anti roll back system

Anti Roll-back system offers protection against the machine rolling back on a ramp in combination with exceptional ramp start capabilities.



### Fork safety features

When the forks are being lowered, a down-control valve maintains the controlled speed. The down-safety valve prevents forks from dropping down in case of sudden damage of hydraulic line.



### Operator Presence Sensing System (OPSS)

When operator is not in seat the hydraulic lift and tilt controls and travel are locked out.



### Strong overhead guard

Exceeding ISO6055 regulations, the overhead guard offers great protection combined with excellent all around visibility.



### Safety lamps

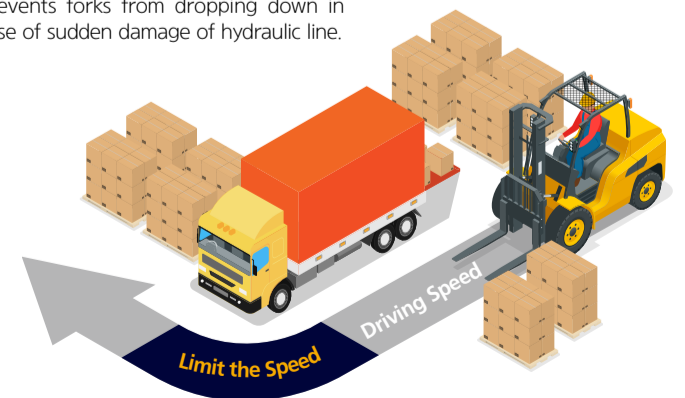
LED combination lights and halogen headlights offer the driver visibility in all circumstances.



### AUTO PARKING

### Auto parking brake

No operation is required by the operator after turning off a vehicle. (There are no levers, no switches.)

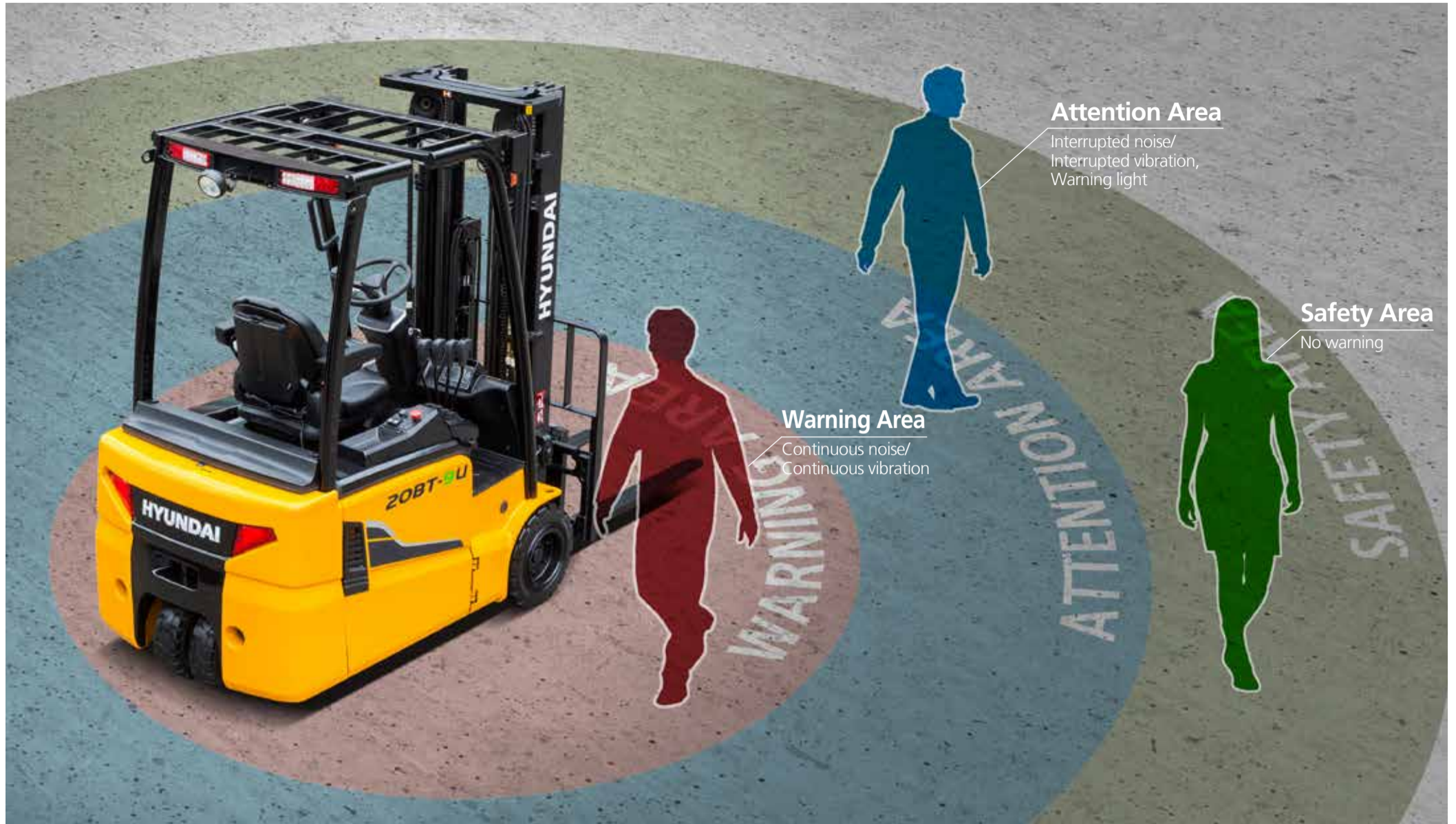
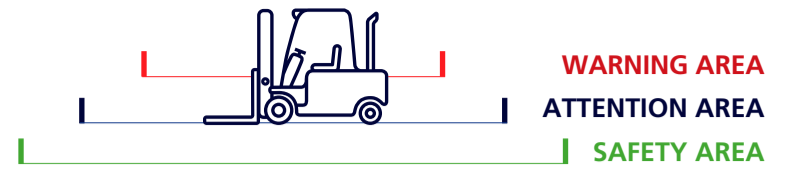


### Curve control

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

## IPAS: Intelligent Proximity Alert System (OPT)

Emits a warning (vibration, warning noise) in each area by measuring the distance between the forklift and a nearby pedestrian in real time with wireless communication.



### Attention Area

Interrupted noise/  
Interrupted vibration,  
Warning light

### Warning Area

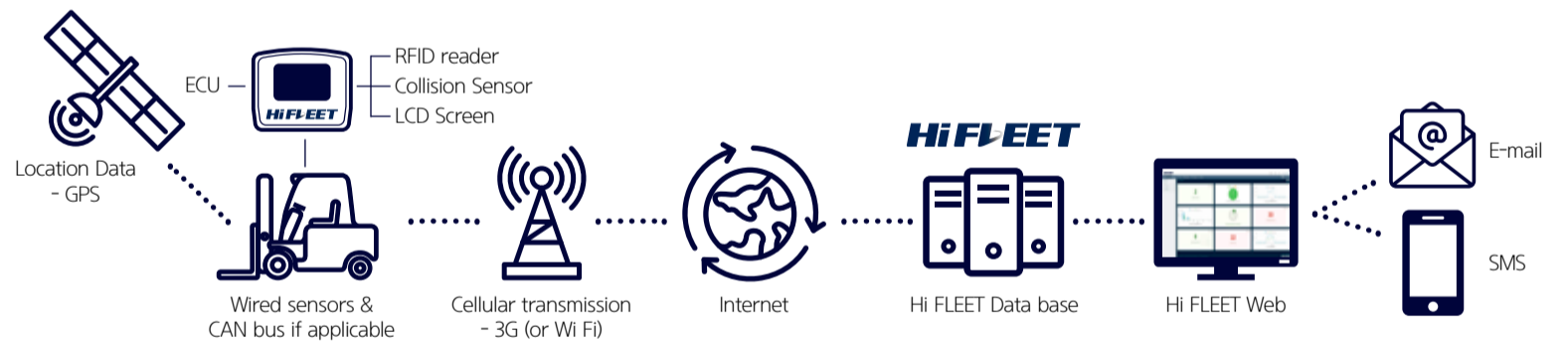
Continuous noise/  
Continuous vibration

### Safety Area

No warning

## Fleet Management System(Hi FLEET) (OPT)

Hi FLEET, Hyundai material handling's fleet management system, is the optimal operation solution for a fleet of forklifts. It connects driver and vehicle in real time.



### DRIVER MANAGEMENT

It is possible to certify drivers and manage their work through RFID, PIN password.

### VEHICLE MANAGEMENT

You can check the operating time, battery status, and location information in real time.

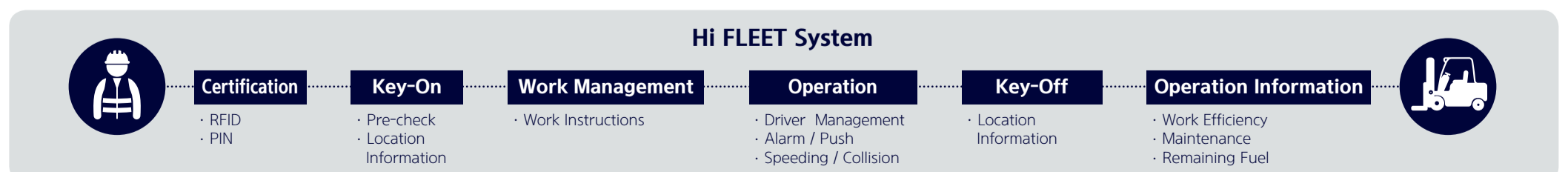


### SAFETY MANAGEMENT

You can check the driver's conditions and vehicle status before starting work and manage the speed and collision.

### MAINTENANCE

You can keep your vehicles in optimal condition by notifying the vehicle's maintenance interval and fault codes.

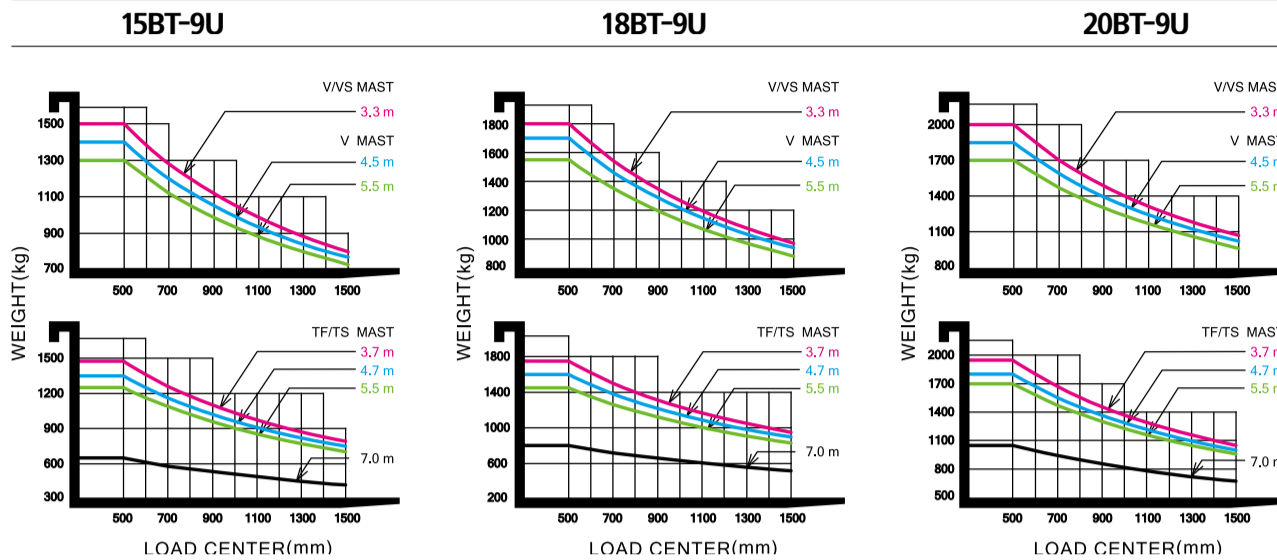




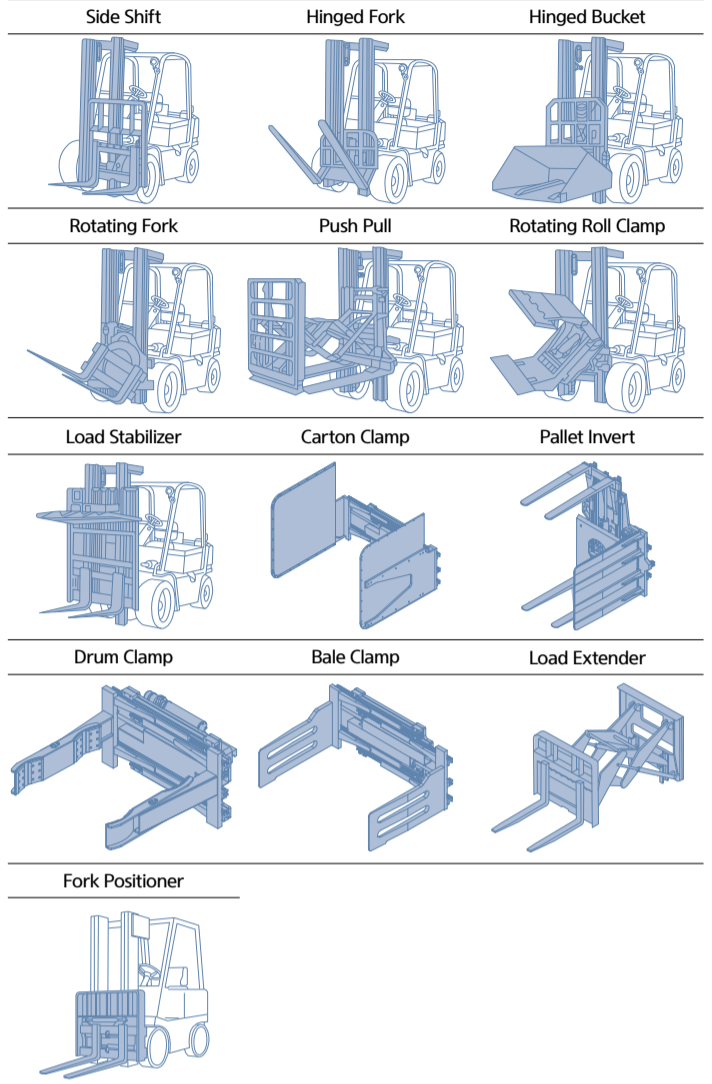
# New 9 Series

15/18/20BT-9U

## Load Capacity



## Various Attachments



## Optional Items

- Fork (mm) : 40x100x900(STD), 950, 1000, 1050, 1150, 1200, 1350, 1500, 1600
- Integral Sideshift · Finger Tip Control · Direction Switch on Lever
- Tire : Non-marking / Wide tire [15BT-9U : Front tire (200 / 50-10)] · Cold Storage (for - 30°C cold working environments)
- M.C.V : 2-Spool (STD), 3-Spool, 4-Spool · Auto Fork Leveling · Beacon Lamp · Load Indicator
- Work lamp : LED · OPSS : Mast · UL : ES, EE · Cabin

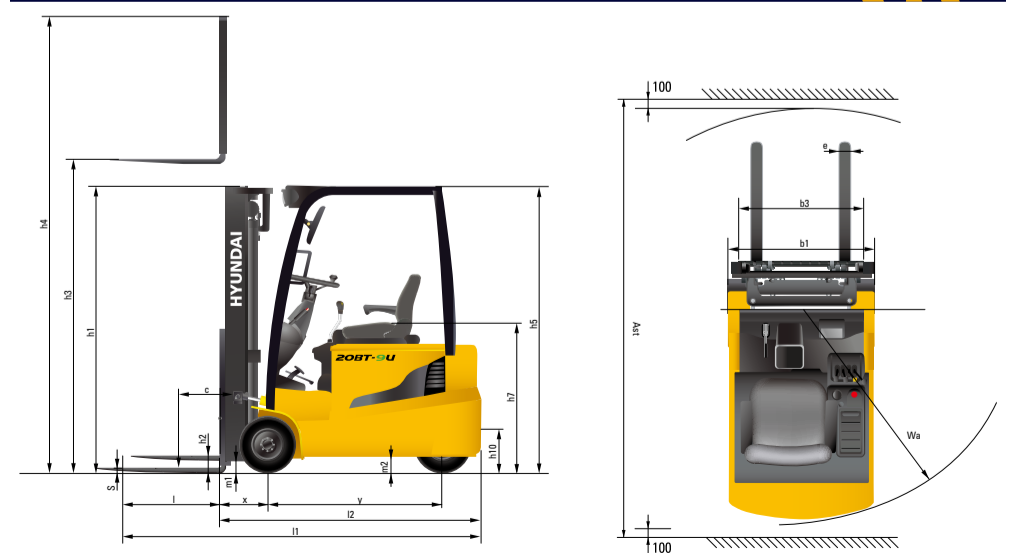
## New 9 Series

## Specification

DISTINGUISHING MARK					
1.1	Manufacturer (Abbreviation)		Hyundai		
1.2	Manufacturer's Type Designation	15BT-9U	18BT-9U	20BT-9U	
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	seated	seated	seated	
1.5	Load Capacity / Rated Load	Kg (Lb)	1500 (3000)	1800 (3500)	2000 (4000)
1.6	Load Center Distance	c mm (in)	500 (24)	500 (24)	500 (24)
1.8	Load Distance, Center Of Drive Axle To Fork	x mm (in)	380 (14.96)	380 (14.96)	380 (14.96)
1.9	Wheelbase	y mm (in)	1345 (53.0)	1430 (56.30)	1430 (56.30)
WEIGHT					
2.1	Service Weight	kg (lb)	3118 (6874)	3407 (7511)	3542 (7809)
2.2	Axle Loading, Loaded Front / Rear	kg (lb)	4129/489 (8842/1032)	4642/565 (9748/1263)	4956/586 (10572/1237)
2.3	Axle Loading, Unloaded Front / Rear	kg (lb)	1654/1464 (3646/3228)	1741/1666 (3838/3673)	1725/1817 (3804/4005)
TIRES, CHASSIS					
3.1	Tires : Solid Rubber, Superelastic, Pneumatic, Polyurethane		SE	SE	SE
3.2	Tire Size, Front		18x7-8	200/50-10	200/50-10
3.3	Tire Size, Rear		15x4.5-8	15x4.5-8	15x4.5-8
3.5	Wheels, Number Front / Rear (X = Driven Wheels)		2x/2	2x/2	2x/2
3.6	Tread, Front	mm (in)	895 (35.2)	905 (35.6)	905 (35.6)
3.7	Tread, Rear	mm (in)	184 (7.24)	184 (7.24)	184 (7.24)
DIMENSIONS					
4.1	Tilt Of Mast/Fork Carriage Forward/Backward	degree	5/7	5/7	5/7
4.2	Height, Mast Lowered	h1 mm (in)	2120 (83.5)	2120 (83.5)	2120 (83.5)
4.3	Free Lift	h2 mm (in)	40 (1.5)	40 (1.5)	40 (1.5)
4.4	Lift Height	h3 mm (in)	3330 (131.10)	3330 (131.10)	3330 (131.10)
4.5	Height, Mast Extended	h4 mm (in)	4320 (170.07)	4320 (170.07)	4320 (170.07)
4.7	Height Of Overhead Guard (Cabin)	h5 mm (in)	2065 (81.29)	2065 (81.29)	2065 (81.29)
4.8	Seat Height / Stand Height Rel. To Sip	h7 mm (in)	1090 (42.91)	1090 (42.91)	1090 (42.91)
4.12	Coupling Height	h10 mm (in)	520 (20.5)	520 (20.5)	520 (20.5)
4.19	Overall Length	l1 mm (in)	2800 (110.24)	2890 (113.8)	2925 (114.56)
4.20	Length To Face Of Forks	l2 mm (in)	1900 (78.35)	1990 (78.3)	2025 (79.72)
4.21	Overall Width	b1 mm (in)	1074 (42.28)	1105 (43.50)	1105 (43.50)
4.22	Fork Dimensions	s x e x l mm (in)	40x100x900 (1.6x4x35.4)	40x100x900 (1.6x4x35.4)	40x100x900 (1.6x4x35.4)
4.23	Fork Carriage Iso 2328, Class / Type A, B		2A	2A	2A
4.24	Fork-Carriage Width	b3 mm (in)	1006 (39.60)	1006 (39.60)	1006 (39.60)
4.31	Ground Clearance, Below Mast, Loaded	m1 mm (in)	89 (3.50)	89 (3.50)	89 (3.50)
4.32	Ground Clearance, Center Of Wheelbase	m2 mm (in)	95 (3.74)	95 (3.74)	95 (3.74)
4.33	Aisle Width For Pallets 1000 X 1200 Crossways (L X W)	Ast mm (in)	3226 (127.00)	3316 (130.55)	3351 (131.92)
4.34	Aisle Width Of Pallets 800 X 1200 Crossways (W X L)	Ast mm (in)	3350 (131.88)	3440 (135.43)	3475 (136.81)
4.35	Turning Radius	Wa mm (in)	1540 (60.62)	1630 (64.17)	1660 (65.35)

PERFORMANCE DATA					
5.1	Travel Speed, Loaded / Unloaded	km/h (mph)	16/16 (9.9/9.9)	16/16 (9.9/9.9)	16/16 (9.9/9.9)
5.2	Lift Speed, Loaded / Unloaded	mm/s (ft/min)	400/550 (78.7/108.3)	400/550 (78.7/108.3)	400/550 (78.7/108.3)
5.3	Lowering Speed, Loaded / Unloaded	mm/s (ft/min)	550/450 (108.3/88.6)	550/450 (108.3/88.6)	550/450 (108.3/88.6)
5.6	Max. Drawbar Pull, Loaded / Unloaded	N (lb)	15102/14759 (3395/3318)	15190/14710 (3415/3306)	14367/14043 (3229/7/3156)
5.8	Max. Gradeability, Loaded / Unloaded	%	29.5/-	27.5/-	24.5/-
5.10	Service Brake		hydr.	hydr.	hydr.
ELECTRIC-MOTOR					
6.1	Drive Motor Rating S2 60 Min	kW (hp)	5.4x2 (7.3x2)	5.4x2 (7.3x2)	5.4x2 (7.3x2)
6.2	Lift Motor Rating At S3 15%	kW (hp)	14.9 (20.3)	14.9 (20.3)	14.9 (20.3)
6.4	Battery Voltage, Nominal Capacity K5	V/Ah	48/440	48/510	48/510
6.5	Battery Weight (Min.)	Kg (lb)	780 (1742)	950 (2094)	950 (2094)
6.7	Battery Compartment Dimensions L/W/H	mm (in)	983/553/650 (38.7/21.8/25.6)	983/638/650 (38.7/25.1/27.6)	983/638/650 (38.7/25.1/27.6)
ADDITION DATA					
8.1	Type Of Drive Control		AC	AC	AC
8.2	Operating Pressure, System / Attachments	bar (psi)	190/130 (2755/1885)	190/130 (2755/1885)	190/130 (2755/1885)
8.3	Oil Volume For Attachments	LPM	20	20	20

## Dimension



\* All specifications in this catalog are subject to change according to the optional items.