

Electric forklift

# 15/18/20BT-9U



# A NEW LEVEL OF SATISFACTION FOR OWNERS AND OPERATORS

## Compact forklift with proven AC technology

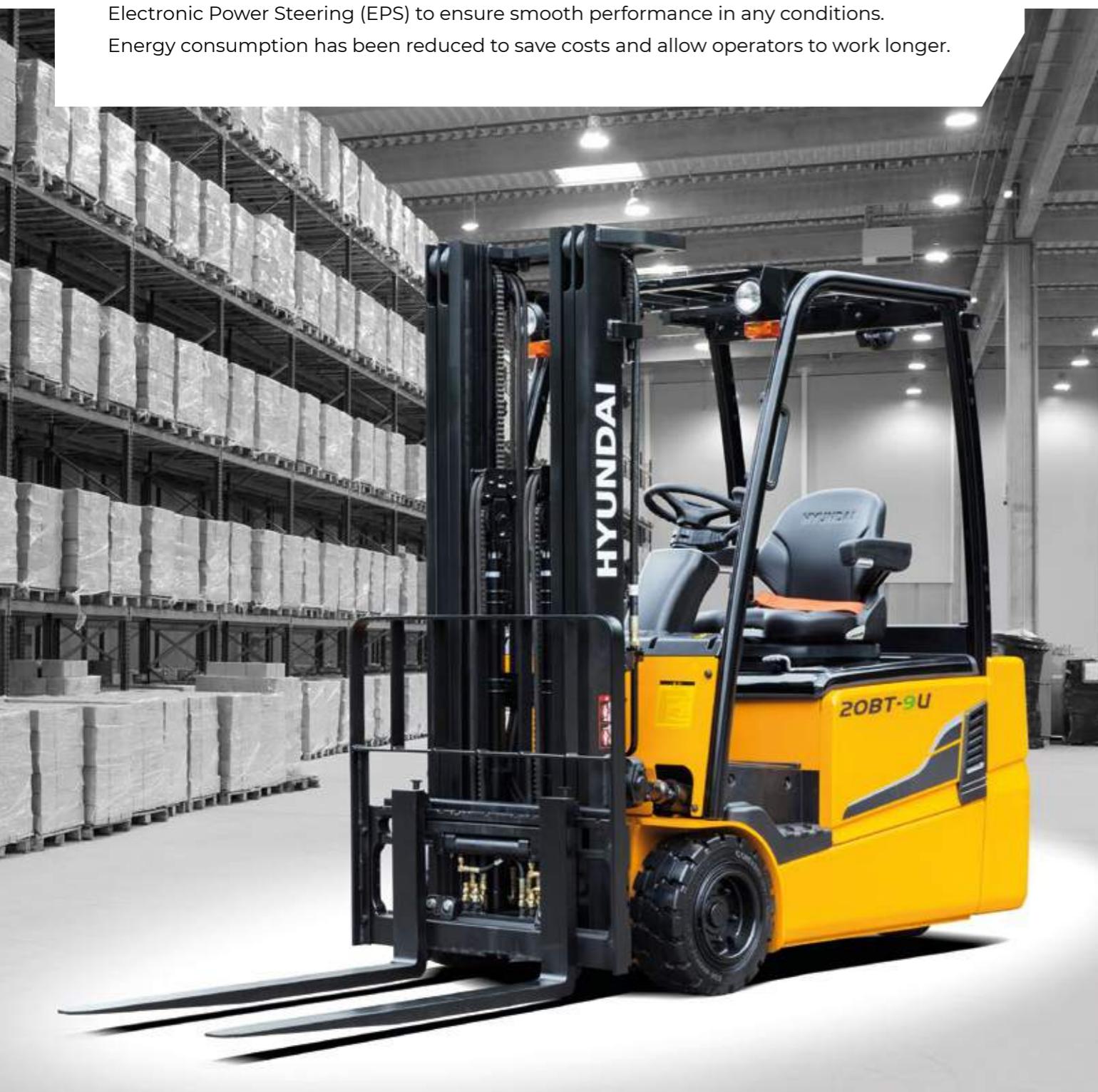
Hyundai is proud to introduce its new BT-9U Series 3-wheel battery forklifts. These high-performing machines feature numerous upgrades, including new technology that enhances productivity, efficiency, durability, comfort and safety, while making maintenance easier than ever before.



## Productivity & Efficiency

# SMOOTH, EFFICIENT PERFORMANCE TO BOOST YOUR PRODUCTIVITY

The BT-9U Series has been enhanced with new details and technologies to improve operating performance and efficiency. The upgraded ZF drivetrain combines with Electronic Power Steering (EPS) to ensure smooth performance in any conditions. Energy consumption has been reduced to save costs and allow operators to work longer.


[UPGRADE](#)

### ZF dual drivetrain (ZF drive gear + Schabmueller drive motor + electric parking brake)

The drivetrain selected for the BT-9U Series is supplied by ZF, a global leader in power train design with a solid reputation for reliability and durability. The low-noise ZF dual drive system ensures excellent drawbar pull and a short turning radius. It is combined with virtually maintenance-free Schabmueller AC motors and a wet brake system that offers optimal brake performance with minimal servicing. An automatic electric parking brake improves safety and productivity.


[UPGRADE](#)

### Electric Power Steering (EPS)

The ZAPI EPS system offers speed adaptive steering feedback and allows each operator to set up personalised parameters.



### Tailored performance for different working conditions

Different working modes optimise the forklift's performance depending on parameters such as speed of operation, maximum working time and operator proficiency.

**H:** High Performance mode with fast driving and lifting speeds

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

**E:** Economy mode maximising battery autonomy

### Reduced energy consumption

The combination of the newly applied Zapi EPS system and ZF drivetrain significantly reduces energy consumption. As a result, running costs are reduced and operating time is extended.

Previous model (20BT-9): 8.5 Kw/h

Upgraded model (20BT-9U): 5.7 Kw/h



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


[UPGRADE](#)

### New ZAPI controller

BT-9U Series forklifts feature a new ZAPI ACE controller with dual MiCOM technology. The capacity of the drive controller has been increased for higher drive performance. The controllers feature IP65 level dust and water protection.

## Productivity & Efficiency

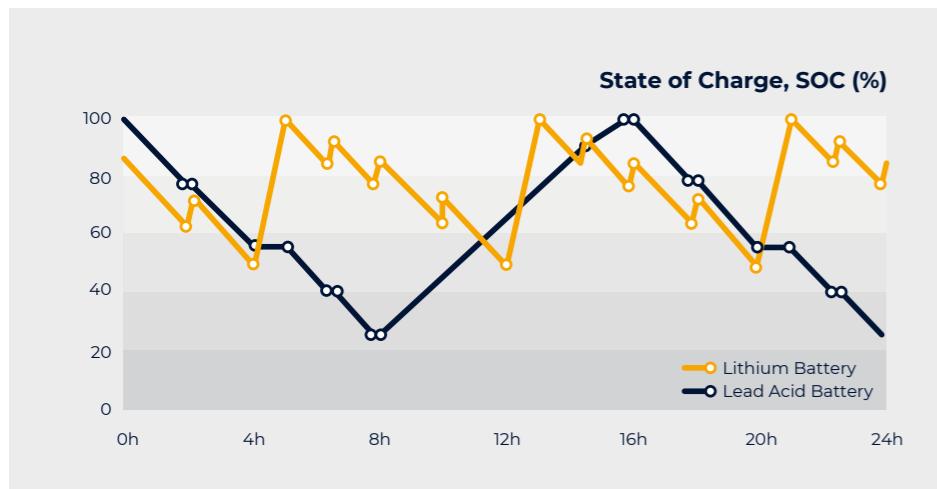
# OPTIMISE YOUR MACHINE WITH A HIGH-QUALITY LI-ION BATTERY

Lithium-ion (Li-ion) batteries ensure high equipment performance and allow extended hours of continuous operation through the use of fast, high-current opportunity charging. The Hyundai Li-ion battery uses Samsung prismatic NMC cells, ensuring excellent performance and safety with virtually zero maintenance. With double the lifespan of a traditional lead-acid battery, accompanied by a 5-year warranty, it significantly lowers the total operating cost of your forklift.

**Li-ION battery capacity:**  
 - 15BT-9U: 51.5 V/376 Ah  
 - 18/20BT-9U: 51.5 V/470 Ah



### Comparison of charge and discharge



## Why choose a Hyundai Li-ion battery?



### Longer operating time

- Extended battery autonomy through use of short opportunity charges during breaks
- No need for spare batteries or charging facilities



### Increased safety

- Multi-layered protection on cell
- Enclosed battery case made of high-strength steel
- No hazardous gases produced during charging process



### Minimal maintenance

- No need to replenish distilled water or electrolytes
- Battery lifespan at least double that of lead acid/sulfuric acid batteries (over 4,000 cycles)
- No harmful gas emissions and no restrictions on the charging location



### Lower costs

- Higher charging efficiency than lead acid batteries (80% → 90%)
- Zero downtime for maintenance

## Operating comfort

# COMFORT, CONTROL AND CONVENIENCE - AT YOUR FINGERTIPS

For the BT-9U Series, we optimised ergonomics wherever possible to ensure a comfortable seating position that places all the controls you need within easy reach. We also prioritised quick, simple maintenance to minimise downtime and allow you to focus on the job at hand.



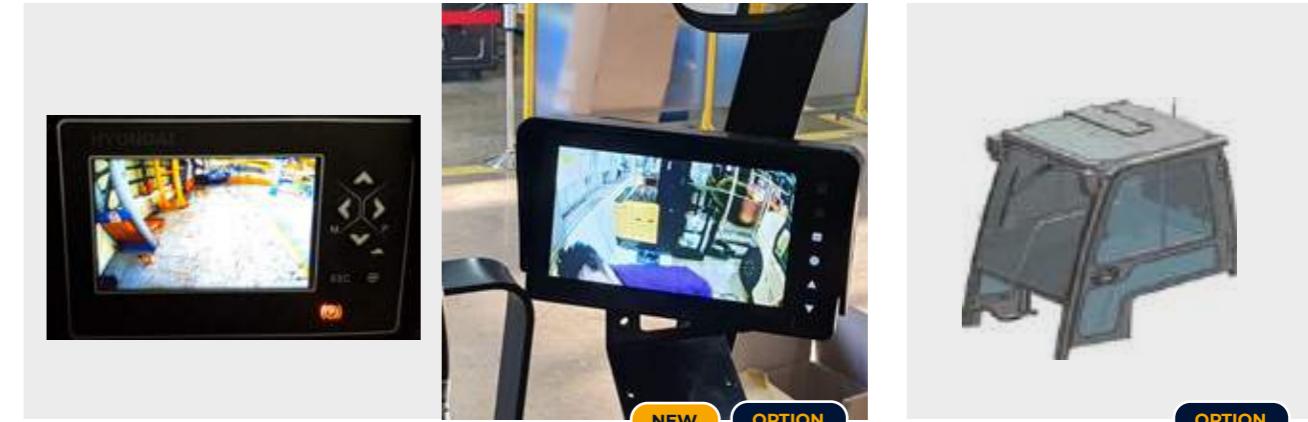
### 4.3 inch LCD colour monitor

The 4.3 inch LCD smart graphic display gives the driver an overview of essential information. The menu is available in 11 different languages. Intuitive selection buttons next to the display create the perfect tool for machine set-up and on-board diagnosis.

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

### Spacious operating area

The newly designed driver compartment increases operating space, visibility and overall comfort for the operator.



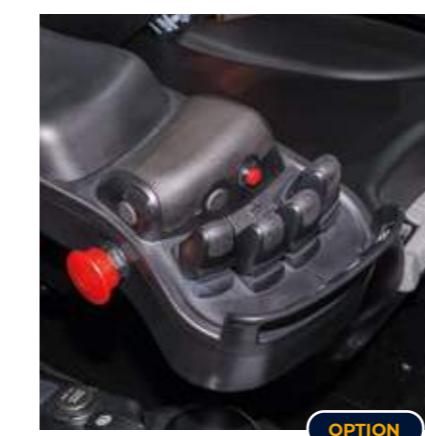
### Camera options

Two camera options are available for maximum convenience:

- An automatically activated rear view camera, integrated in the cluster
- A front view camera, displayed in a separate monitor

### Full and semi-cabin options

The forklift can be equipped with a heated full cabin or a semi-cabin, depending on your needs.



### Fingertip control levers

Adjustable, ergonomically designed fingertip control levers are available as an option to increase operator comfort and productivity.



### Display options

As a standard feature, the driver can choose between two display layouts. If equipped with the optional load indicator, the loaded weight is shown on the display.



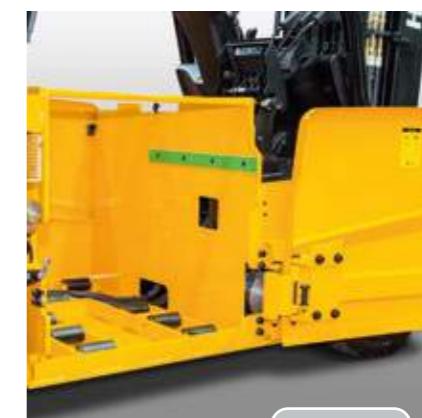
### Directional & horn switch on lever

The electronic directional switch integrated in the lift lever is easy to use and helps operators to work more productively.



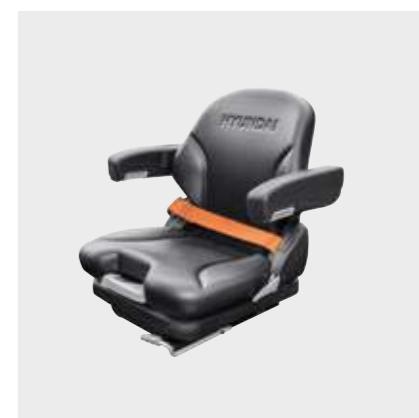
### Continental SC18 solid tyres as standard

BT-9U Series forklifts are equipped with Continental SC18 solid tyres, helping to reduce energy consumption and ensuring a long service life.



### Easy battery replacement

The convenient roller-type lateral battery replacement system has been enhanced with guiding strips. This design raises productivity by making battery exchange even faster.



### Low-vibration comfort seat

The BT-9U Series features a wide, high-quality Grammer seat. The suspension, armrests and backrest are adjustable and additional seat options are available to further customise the machine to your preferences.

## Safety

# VISIBILITY AND CONTROL FOR A SAFER WORKPLACE

The BT-9U Series is designed to help operators work more safely and confidently. This is achieved through a range of control and feedback features, as well as all-round visibility.

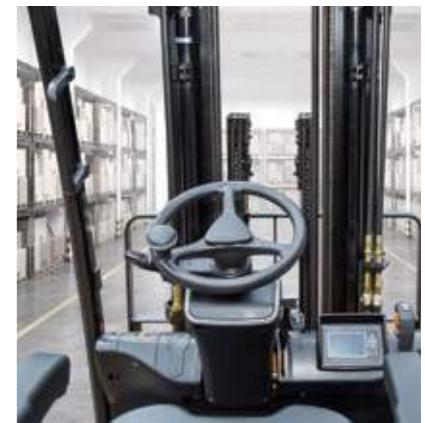


### Speed adaptive steering feedback & Curve Control

The speed adaptive steering feedback system offers:

- Light steering force at a low speed, for reduced driver effort and high productivity
- Stiffer steering force at a high speed, ensuring high driving stability and a relaxed drive

The Curve Control system limits travel speed based on the turning radius, ensuring that turn manoeuvres are smooth and precise.



### Excellent visibility from the driver's space

The lift cylinder arrangement has been optimised to provide good visibility for the operator. A panoramic mirror is included and two camera options are available to further increase for the operator and pedestrians.



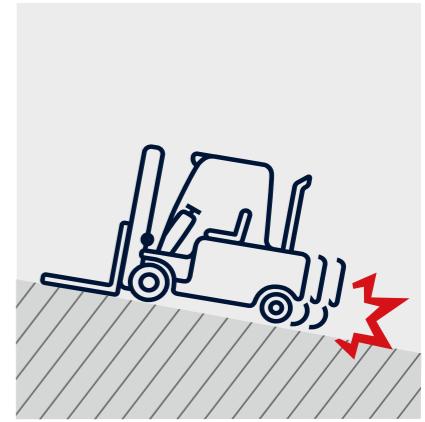
### Red Zone light

This new safety option projects the limits of a safe working area onto the floor, warning pedestrians and making it easier for them to keep at a safe distance from the forklift.



### LED lights

LED combination lights and optional LED working lights offer excellent visibility in all circumstances, with very low energy consumption.



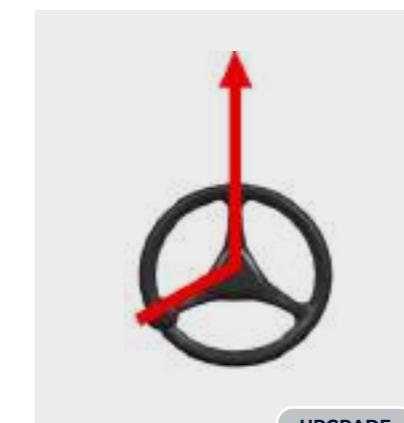
### Anti-rollback system

BT-9U Series forklifts feature an anti-rollback system that prevents the machine from rolling back on a slope and offers exceptional drive-off capabilities.



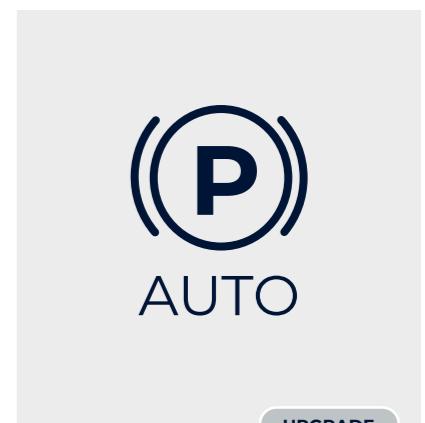
### Auto fork levelling system

This feature ensures that mast tilting stops smoothly when the forks are in level position, improving both safety and productivity.



### Improved steering control

Steering ergonomics have been improved by synchronising the position of the steering knob and reducing the diameter of the steering wheel.



### Auto parking brake

The parking brake is activated and de-activated automatically, requiring no action from the operator.

## Walk-around

# 15/18/20BT-9U

### Productivity & efficiency

- Full electric power steering system for better energy efficiency
- Dual drive system for powerful drive performance with fine control
- Precise, fully adjustable fingertip control
- Ergonomically designed directional & horn switch positioned on hydraulic controls

OPTION



### Durability

- Reliable, low-noise ZF-Schabmueller drive system (drive axle, drive motor and electric parking brake)
- Proven dual MiCOM ZAPI ACE controllers
- Wet disc brakes
- IP43 motor & IP65 controller

### Safety

- Curve Control reduces driving speed when entering a curve
- Speed adaptive steering feedback increases driving stability
- Anti-rollback feature prevents rolling backwards on a slope
- Electric auto parking brake
- Operator Presence Sensing System (OPSS)

### Easy maintenance

- Lateral battery exchange system (roller-type)
- Display with integrated self-diagnostic functions
- Proven quality Continental SC18 solid tyres

## Parts & Warranties

# HYUNDAI GENUINE PARTS AND WARRANTIES: THE BEST WAY TO PROTECT YOUR INVESTMENT

Hyundai Genuine parts, accessories and warranty programmes are specially designed to keep your investment covered. They increase uptime and maintain the performance, comfort, and convenience that are built into your equipment.

## Leader in standard warranties for battery Forklifts!

Hyundai warranties are designed to give you the cover you need to build your business with confidence and peace of mind.

## Best standard warranties in the industry

For extra reassurance, and to ensure maximum customer confidence, we are supplying all new battery models with best industry standard warranties.

The forklift **standard warranty covers you for two years or 3,000 hours, whichever comes first.**

## Optional and extended warranty periods

In addition to this standard coverage, optional and extended warranty periods are available, allowing you to benefit from full warranty coverage for longer, and even over the full service life of your forklift.\*

**Forklift standard warranty\***  
**2 years**  
or 3,000 hours,  
whichever comes first.



## Hyundai Genuine parts

Hyundai Genuine parts have the same design as those installed when your machine left the factory. They are subjected to rigorous quality inspections and tests to make sure they meet Hyundai's strict requirements for quality and durability.

As well as minimising downtime, this helps to ensure peak performance on every task. In the 13,000 m<sup>2</sup> warehouse, **Hyundai covers over 96% of all Genuine Parts**. With one of Europe's most advanced automated warehousing systems, we are able to maintain availability and efficient delivery of all our Genuine Parts.

## A network you can rely on

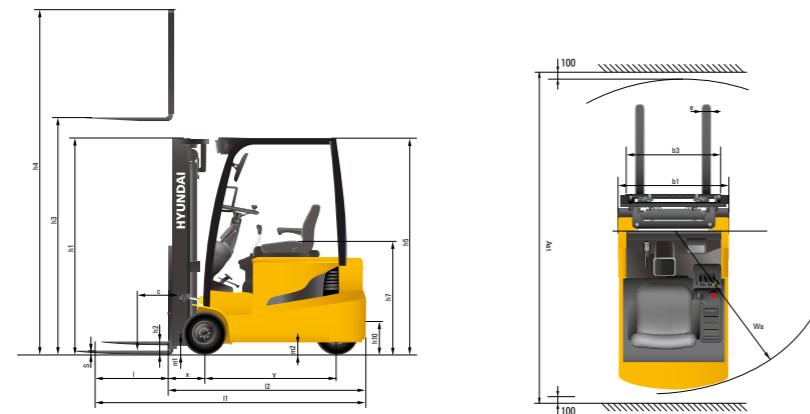
HCEE prioritises quick, reliable intervention to keep your equipment running reliably. Thanks to the **extended dealer network across Europe**, we will always be close by to ensure a timely and efficient solution. Moreover, we guarantee a 24-hour delivery service across our European dealer network.

\* Conditions apply. Please discuss the optimal solution for your needs with your dealer.



# SPECIFICATIONS

Main characteristics					Performance data				
1.1 Manufacturer (abbreviation)		Hyundai	Hyundai	Hyundai	5.1 Travel speed, loaded/unloaded	km/h	16/16	16/16	16/16
1.2 Manufacturer's type designation		15BT-9U	18BT-9U	20BT-9U	5.2 Lift speed, loaded/unloaded	mm/s	400/550	400/550	400/550
1.3 Drive : Electric (battery or mains), Diesel, Petrol, Fuel Gas		Electric	Electric	Electric	5.3 Lowering speed, loaded/unloaded	mm/s	550/450	550/450	550/450
1.4 Type of operation: Hand, Pedestrian, Standing, Seated, Order-Picker		Seated	Seated	Seated	5.6 Max. drawbar pull, loaded/unloaded	N	15102/14759	15190/14710	14367/14043
1.5 Load Capacity / Rated Load	kg	1500	1800	2000	5.8 Max. gradeability, loaded/unloaded	%	29.5/-	27.5/-	24.5/-
1.6 Load Center Distance	c mm	500	500	500	5.10 Service brake		Hydr.	Hydr.	Hydr.
1.8 Load Distance, Center Of Drive Axle To Fork	x mm	380	380	380					
1.9 Wheelbase	y mm	1345	1430	1430					
Weights					Electric motor				
2.1 Service weight	kg	3118	3407	3542	6.1 Drive motor rating S2 60 Min	kW	5.4x2	5.4x2	5.4x2
2.2 Axle loading, loaded front/rear	kg	4129/489	4642/565	4956/586	6.2 Lift motor rating at S3 15%	kW	14.9	14.9	14.9
2.3 Axle loading, unloaded front/rear	kg	1654/1464	1741/1666	1725/1817	6.4 Battery voltage, nominal capacity K5	V/Ah	48/440	48/510	48/510
Tyres & chassis					6.5 Battery weight (Min.)	kg	820	1000	1000
3.1 Tyres : Solid Rubber, Superelastic, Pneumatic, Polyurethane		SE	SE	SE	6.6 Energy consumption acc. to VDI cycle	kWh/h	5	5	5
3.2 Tyre size, front		18x7-8	200/50-10	200/50-10	6.7 Battery compartment dimensions L/W/H	mm	983/553/650	983/638/650	983/638/650
3.3 Tyre size, rear		15x4.5-8	15x4.5-8	15x4.5-8					
3.5 Wheels, number front/rear (X = Driven Wheels)		2x2	2x2	2x2					
3.6 Tread, front	mm	895	905	905					
3.7 Tread, rear	mm	184	184	184					
Dimensions					Additional data				
4.1 Tilt of mast/fork carriage forward/backward	degree	5/7	5/7	5/7	8.1 Type of drive control	AC	AC	AC	AC
4.2 Height, mast lowered	h1 mm	2120	2120	2120	8.2 Operating pressure, system/attachments	bar	190/130	190/130	190/130
4.3 Free lift	h2 mm	35	35	40	8.3 Oil volume for attachments	LPM	26	26	26
4.4 Lift height	h3 mm	3330	3330	3330					
4.5 Height,mast extended	h4 mm	4320	4320	4320					
4.7 Height of overhead guard (cabin)	h5 mm	2065 (2111)	2065 (2111)	2065 (2111)					
4.8 Seat height / stand height rel. to sfp	h7 mm	1090	1090	1090					
4.12 Coupling height	h10 mm	520	520	520					
4.19 Overall length	l1 mm	2800	2890	2925					
4.20 Length to face of forks	l2 mm	1900	1990	2025					
4.21 Overall width	b1 mm	1074	1105	1105					
4.22 Fork dimensions	s x e x l mm	40x100x900	40x100x900	40x100x900					
4.23 Fork carriage ISO 2328, class / type A, B		2A	2A	2A					
4.24 Fork carriage width	b3 mm	1006	1006	1006					
4.31 Ground clearance, below mast, loaded	m1 mm	89	89	89					
4.32 Ground clearance, center of wheelbase	m2 mm	95	95	95					
4.33 Aisle width for pallets 1000 X 1200 crossways (L X W)	Ast mm	3245	3335	3365					
4.34 Aisle width of pallets 800 X 1200 crossways (W X L)	Ast mm	3370	3460	3490					
4.35 Turning radius	Wa mm	1540	1630	1660					



## STANDARD AND OPTIONAL EQUIPMENT

Equipment	STD	OPT
Fork (mm) :		
40x100x900	.	
40x100x950		.
40x100x1000		.
40x100x1050		.
40x100x1150		.
40x100x1200		.
40x100x1350		.
40x100x1500		.
40x100x1600		.
Integral sideshift		.
Integral fork-positioner (revolution-kit)		.
Fingertip control		.
Directional switch on steering column		.
Tyre: non-marking / wide tyre [15BT-9U : front tyre (200 / 50-10)]		.
Basic cold storage (at max. -30°C ambient temperature)		.
M.C.V:		
3-spool	.	
4-spool		.
Auto fork leveling		.
Beacon lamp		.
Load indicator		.
Work lamp: LED		.
Blue Spot		.
Full and semi-cabin		.
Rear view and/or front view camera		.
Red-zone light		.
Top-loader battery exchange system		.
Drive-in/rack head guard		.
Seat-belt interlock		.

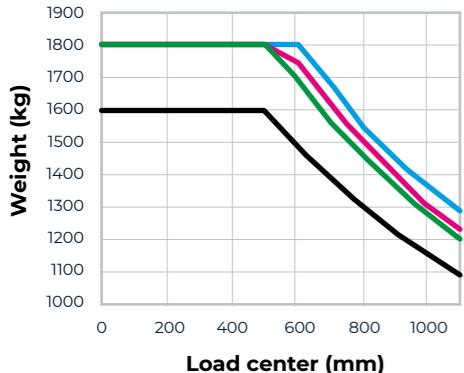




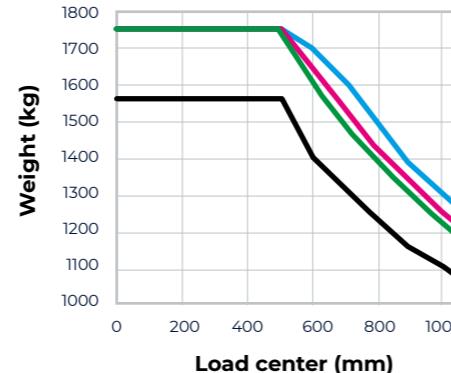
# LOAD CAPACITY

## 18BT-9U

V-Mast / Single solid / 900 mm fork / No attachment

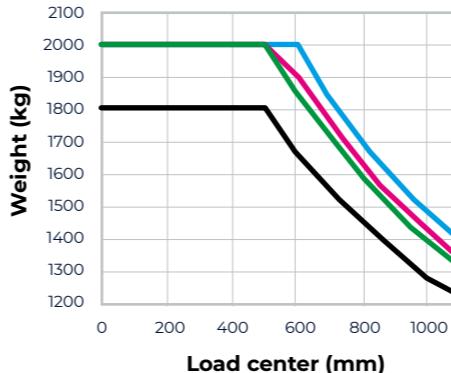


V-Mast / Single solid / 900 mm fork / INT. side shift

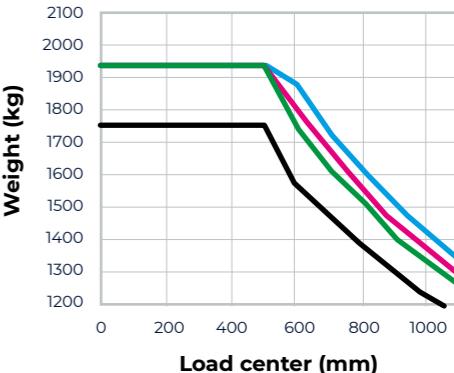


## 20BT-9U

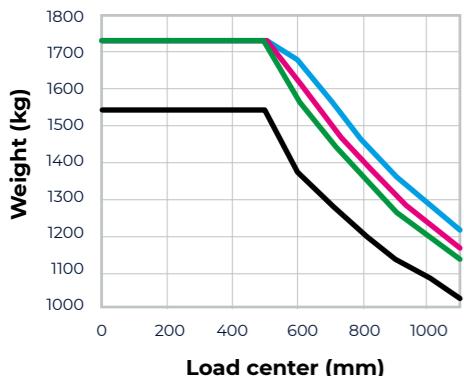
V-Mast / Single solid / 900 mm fork / No attachment



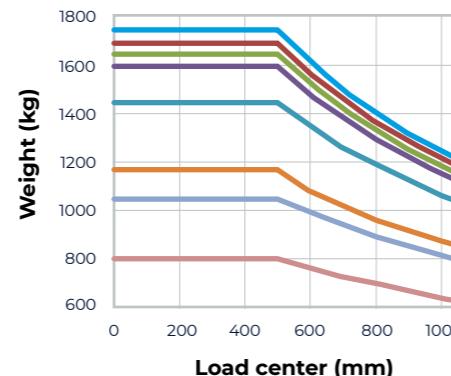
V-Mast / Single solid / 900 mm fork / INT. side shift



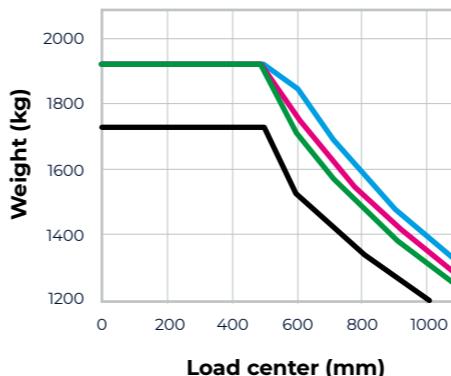
V-Mast / Single solid / 900 mm fork / Hook-on side shift



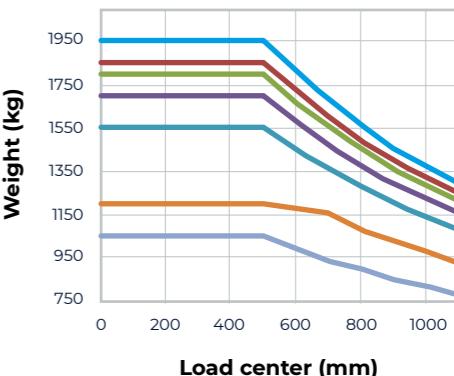
TF/TS-Mast / Single solid / 900 mm fork / No attachment



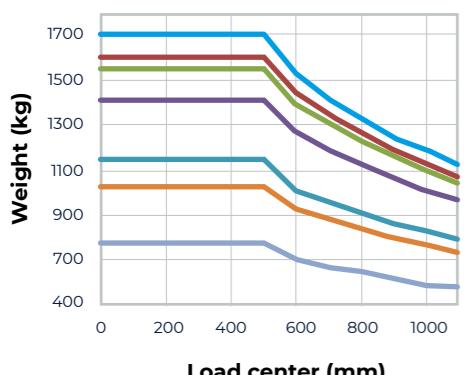
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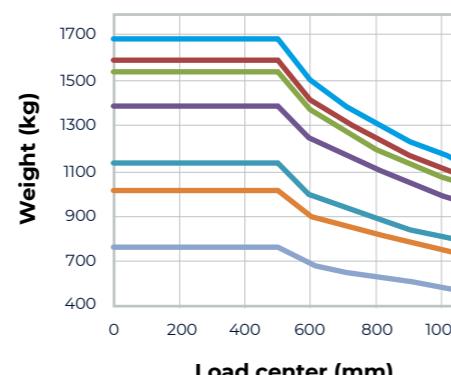
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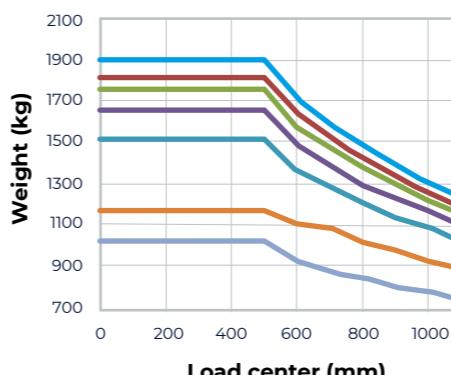
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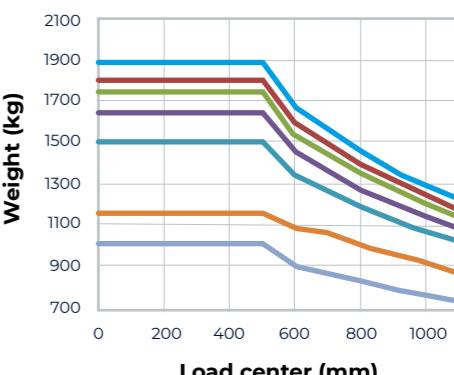
TF/TS-Mast / Single solid / 900 mm fork / Hook-on side shift



TF/TS-Mast / Single solid / 900 mm fork / INT. side shift



TF/TS-Mast / Single solid / 900 mm fork / Hook-on side shift





- \* Standard and optional equipment may vary by country.  
Contact your Hyundai dealer for more information.
- \* The machine may vary according to international standards.  
European specifications may differ from Korean specifications mentioned in the brochures.
- \* The photos may include attachments and optional equipment that are not available in your area.
- \* Materials and specifications are subject to change without advance notice.

Hyundai Construction Equipment Europe NV  
Hyundailaan 4, 3980 Tessenderlo, Belgium  
Tel: (+32) 14-56-2200 Fax: (+32) 14-59-3405

Doc.nr.: EN-20210 Rev.I



Contact your Hyundai dealer.  
[hyundai-mh.eu](http://hyundai-mh.eu)

**Address**



**Handling Machinery LTD**

HHF037A, Industrial estate  
BBG3000 HAL-FAR  
Malta

+356 2148 56 81

[info@rcvmalta.com](mailto:info@rcvmalta.com)