



MOVING YOU FURTHER

15·18

20BT-9U



Some of the photos may include optional equipment.

 **HYUNDAI**
MATERIAL HANDLING

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.



Some of the photos may include optional equipment.

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)

Some of the photos may include optional equipment.



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 11) 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

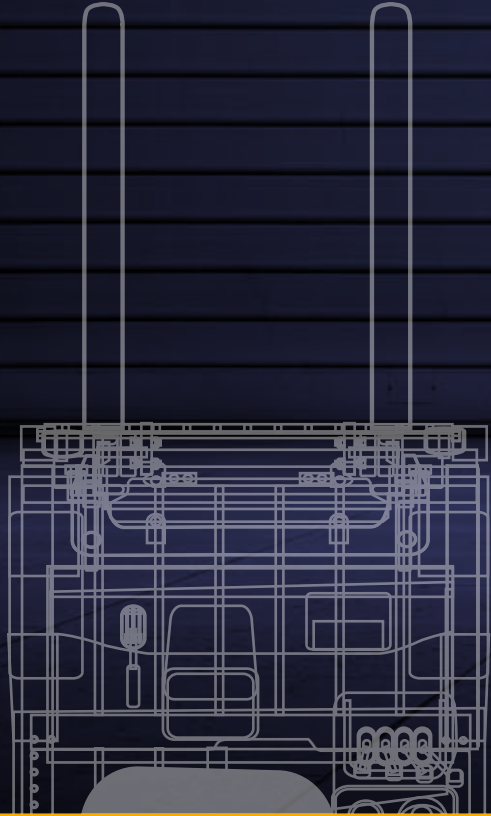
The enhanced brake oil reservoir, located in the upper left dash is equipped with an electronic level sensor and easily visible through the monitor.



Secure & Safety

Advanced Safety

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



EXCELLENT VISIBILITY

ADVANCED SAFETY

HYUNDAI



You can see the video by scanning the QR code.

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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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.



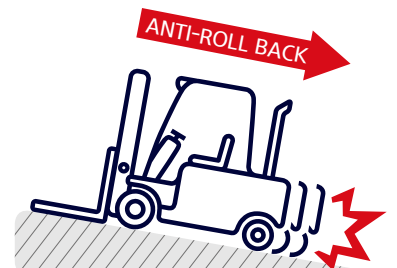
AUTO PARKING

Auto parking brake

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

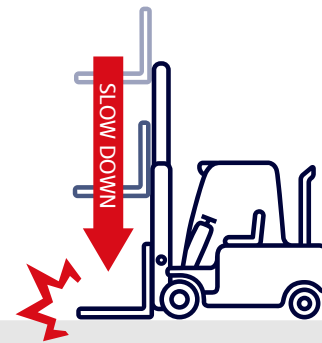
Safety features

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



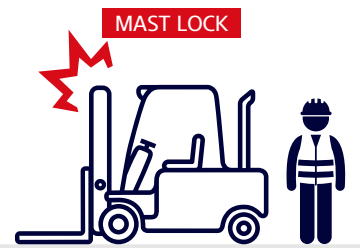
Anti roll back system

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



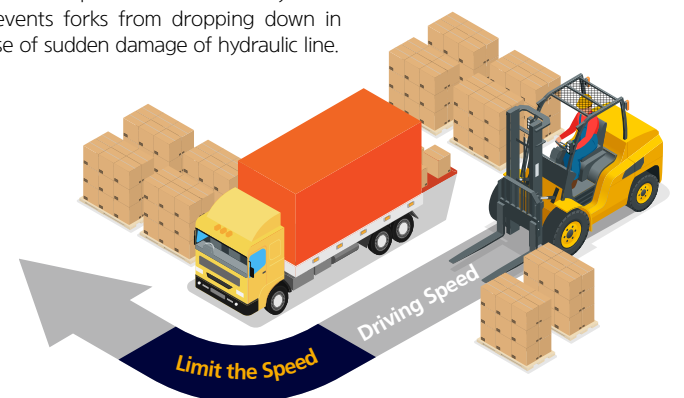
Fork safety features

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.



Curve control

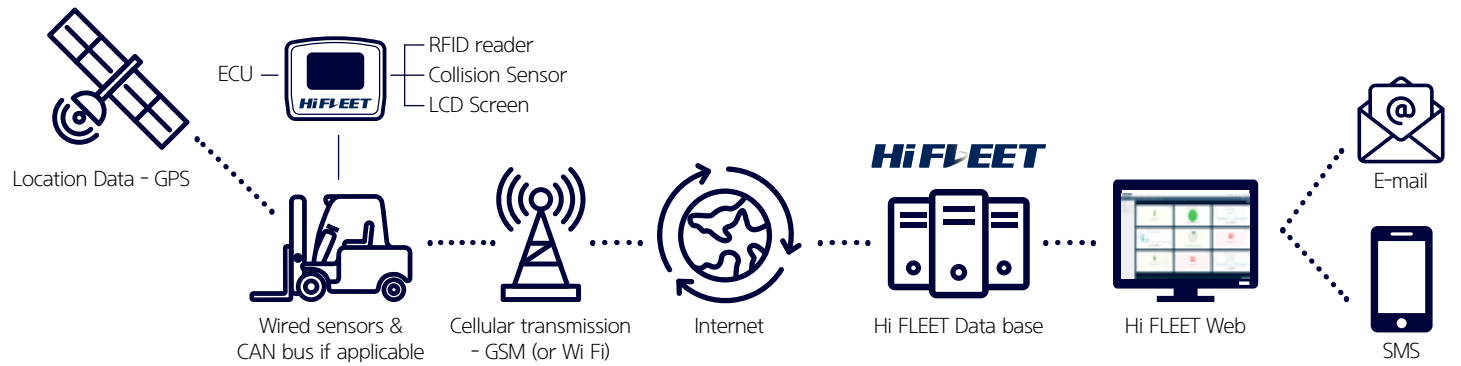
Curve Control limits travel speed based on turning radius for a smooth, precise turning operation for the driver.

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.



You can see the video by scanning the QR code.



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.

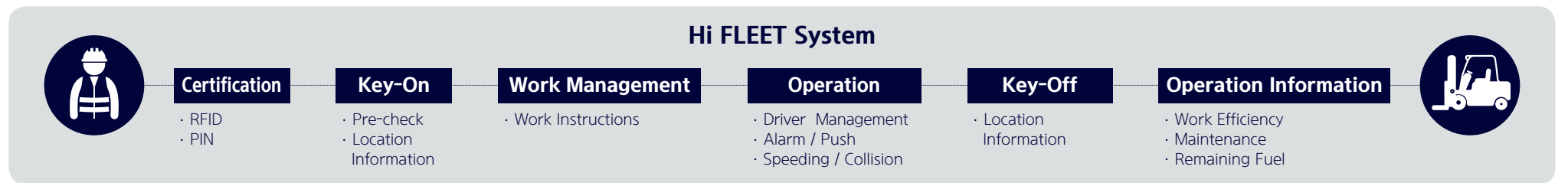


SAFETY MANAGEMENT

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.



High quality Li-ION battery (OPT)

Rapidly chargeable Li-ION battery ensure performance of the equipment with vastly reduced charge times, allowing extended hours of continued operation on a single charge. Moreover, it lasts at least twice longer than lead / sulfuric acid counterparts, and does not necessitate management of distilled water. Also, Li-ION battery using the prismatic cells provides excellent performance and safety.

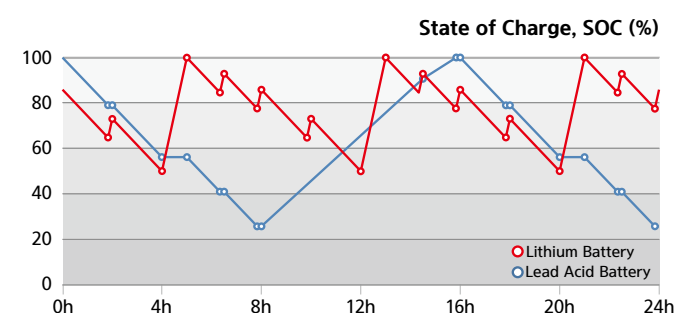


Benefits of HCE's Li-ION battery

- Long hours of continuous operation**
 - Continued operations possible throughout the day with only auxiliary charge during equipment stoppage and meal time.
 - No need for spare batteries and charging facilities.
- Safety**
 - Multi-layered protection on cell.
 - Enclosed battery case made of high-strength steel.
 - Prevention of overheating, excessive electricity discharge or recharging through Battery Manage System.
- Easy maintenance**
 - No need to replenish distilled water or electrolytes.
 - Battery life at least twice longer than that of lead / sulfuric acid batteries. (over 4,000 cycles)
 - No emission of harmful gases and no restriction on the charging location.
- Cost savings**
 - Charging efficiency higher than lead / sulfuric acid batteries. (80% → 90%)
 - 15,000 operational hours guaranteed for 5 years.



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

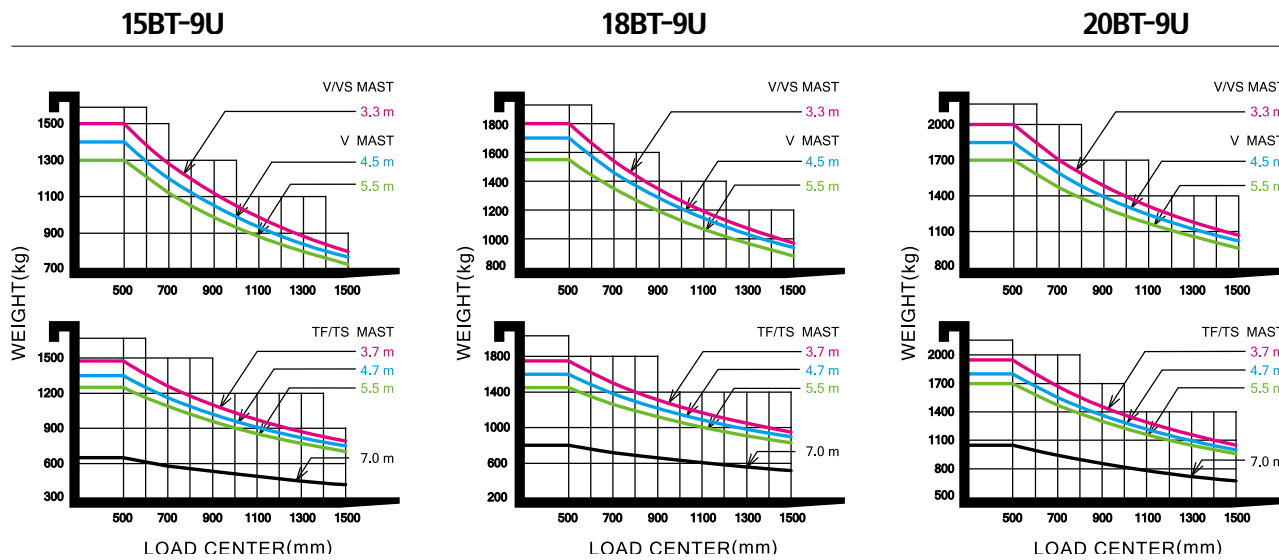


· Graph comparing the charge and discharge

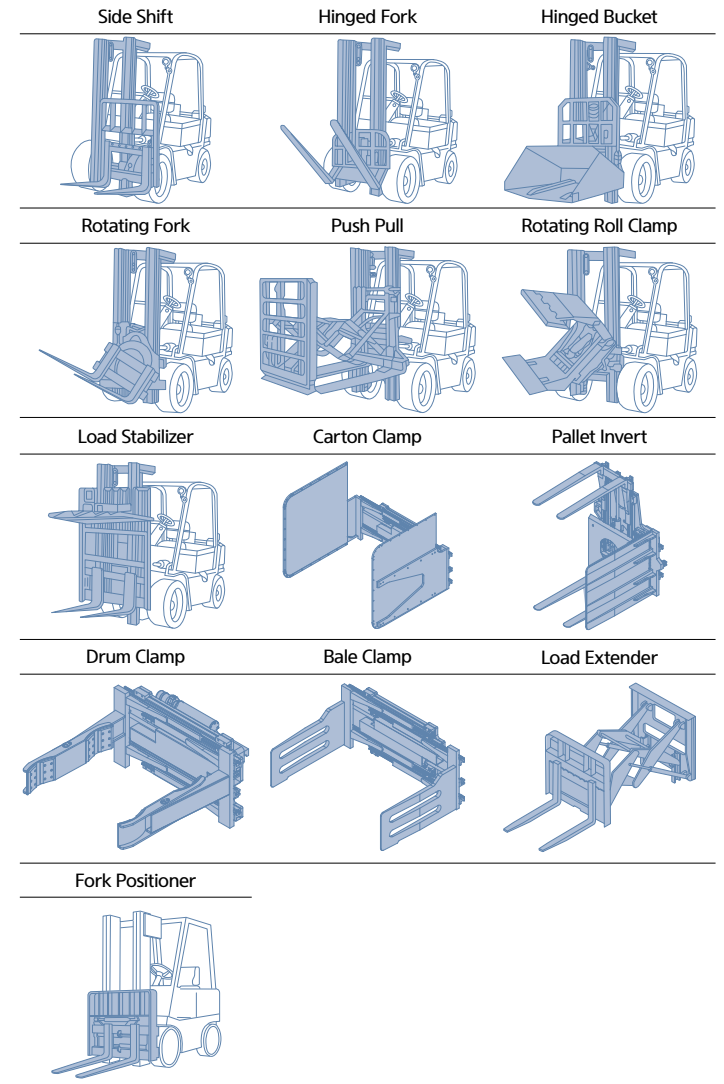
New 9 Series

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

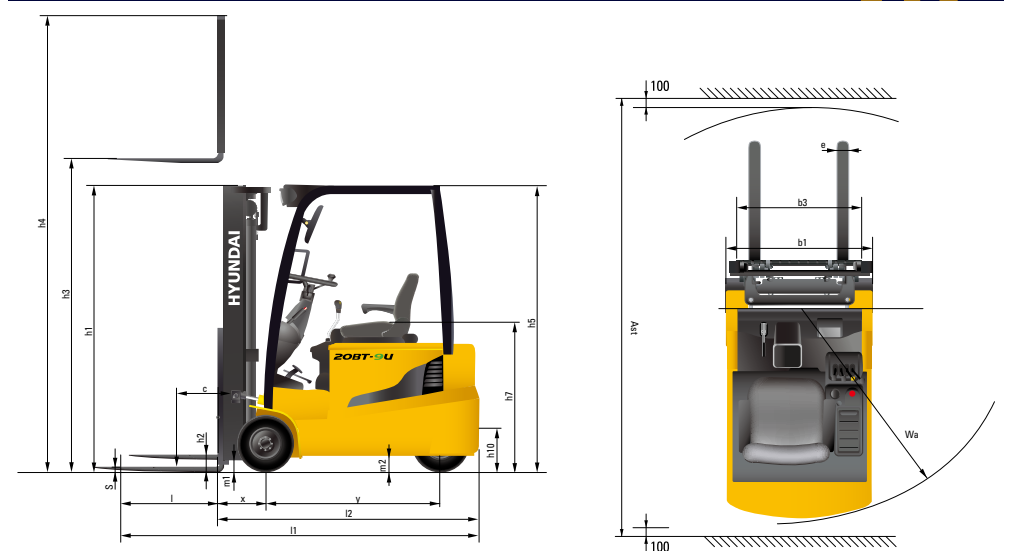
New 9 Series

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) 35 (1.4)	35 (1.4)	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.

