16/20BE-X

BE-X SERIES BATTERY FORKLIFT TRUCKS



Load Capacity	Drive Motor Rating	Lift Height
1600 – 2000 kg	**48 V • 9 kW**	**3000 – 6000 mm**

HD HYUNDAI XITESOLUTION

HYUNDAI MATERIAL HANDLING

HIGH ON QUALITY.
LOW ON COST.

The new Hyundai BE-X Series Electric Forklifts

Introducing the new BE-X battery powered electric forklifts. With these 1.6 and 2 tonne machines, the new range offers the high productivity, comfort and safety you expect from a world-class brand like Hyundai, but at a low-cost price. These cost-efficient yet high-performance machines deliver excellent energy efficiency and low noise levels, making them a smart choice for demanding operations.

HIGH ON PRODUCTIVITY

Productivity has been increased through optimised performance with the use of Lithium Iron Phospate batteries and IP54 drive and pump motors, for longer life and improved cost-effectiveness.

Low energy consumption

Energy efficiency has been enhanced through the integration of drive and pump assemblies, designed to minimise power loss. These assemblies feature optimised drive and hydraulic performance tailored to typical operating conditions, resulting in improved overall system efficiency.

Quiet performance, indoors and outdoors

The use of a single-drive axle system, IP54-rated motors and 48V battery enables outdoor operation, offering greater convenience and flexibility. Additionally, driving noise has been reduced by 6.5 dB through the implementation of low-noise axle technology.

Operational efficiency

Operational efficiency has been enhanced through intuitive speed selection for both driving and mast functions. Operators can easily switch modes to suit varying work conditions using dedicated up/down buttons conveniently positioned within the cluster.

Low centre of gravity

A low-profile frame design allows the batteries to be positioned between the front and rear wheels, lowering the centre of gravity and enhancing driving and lifting stability.

ZAPI controller

To ensure improved reliability of the controller system in compliance with EU safety regulations, the machine is equipped with a high-capacity ZAPI Controller featuring IP65-rated waterproof and dustproof protection.





Reliable power : Li-ion battery

OPTION

Our fast charging Li-ion battery delivers reliable performance with significantly reduced charging times. Extended hours of continuous operation are reached with the help of fast opportunity charging.



HIGH ON COMFORT & EFFICIENCY

A comfortable operator is a productive operator. That's why we've increased the cab space and added numerous functions that allow the operator to work more efficiently and comfortably.



Redesigned cab

We've optimised the cab space and design of the BE-X machines to ensure more convenient and efficient operation for the operator.

Full-suspension Grammer seat

The Grammer seat has an adjustable cushion to match the weight of the operator, a seat belt switch, a buckle switch and arm rests both on the left and right.

Optimised steering

Thanks to the hydraulic power steering system, the steering wheel diameter has been reduced by 20 mm, helping to minimise operator fatigue while maintaining smooth and effortless steering. For added convenience, the steering column can be tilted 12.5 degrees forward or backward, allowing operators to adjust it to their preferred working position

Enhanced comfort

The seat height has been increased while the first and second foot step have been lowered. The distance between the seat and overhead guard has also been increased by about 40 mm, for enhanced comfort.

365 DAYS COMFORT

Multifunctional digital cluster

The operator can clearly check operating information in real time on the multifunctional digital cluster. Many additional functions are also embedded in the cluster for safe and convenient equipment management.



Ergonomic lever design

The mechanical hydraulic control levers are conveniently positioned close to the operator and set at an optimal height, minimising movement and reducing fatigue during operation.

HIGH ON SAFETY

Operator safety is and always will be a high priority for HD Hyundai XiteSolution. The risk of accidents while working has been fundamentally reduced using scientific vehicle body design and effective safety systems.

LED safety warning lights

Bright and long-life LED lights are fitted to the front, rear and direction indicators. A beacon lamp, blue spots and red zone lamps are optional to indicate movement and enhance workplace safety.



Anti-roll back system

This system prevents the machine from rolling back after coming to a stop on an incline. It also offers improved ramp start-up abilities.



TECHNOLOGY TO KEEP YOU **SAFE**



Front & rear cameras OPTION

The wireless camera system supplies the two-channel monitor with information to the front and rear. A front-mounted camera positioned on the fork's lateral side ensures precise pallet positioning during high-rack operations.

Speed limit control

The maximum travel speed can be set to meet the safety speed of the site through the cluster. Even when the maximum speed is limited, gradeability and lifting performance are maintained at top levels.

Travel speed limiter when driving with elevated load OPTION

The travel speed is limited to 3km/h when the forks are lifted to a height of 500mm or more to ensure the load doesn't fall off and the forklift doesn't get overturned.

Rear grip bar & horn OPTION

The rear grip with horn button allows the driver to keep a comfortable posture during reverse driving and operate the horn quickly in case of an emergency.

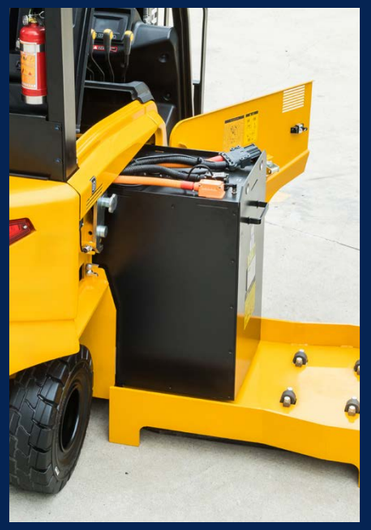
OPSS system

The Operator Presence Sensing System (OPSS) restricts driving and loading when the operator leaves their seat in order to prevent accidents.



LOW ON COST OF OWNERSHIP

BE-X Series electric forklifts have been designed to reduce maintenance and operating costs by incorporating innovative energy-saving features and reliable, durable components with quick replacement capability.



Quick battery replacement

The side battery removal system allows the battery to be easily removed and installed from the side of the forklift truck without the need for expensive equipment like a crane.

Convenient battery charging

Charging is simplified by connecting the charger directly to the charging port, with no need to disconnect battery cables from the truck. For added safety, a sensor disables equipment operation during the charging process.



QUICK SERVICING FOR MAXIMUM **UPTIME**



Pump motor cooling system

For the efficient cooling of the pump motor, there are two fans beside the left and right battery cover. One for blowing out hot air and one for sucking in cool air.

Safety warning

Issues relating to safety and performance, such as low brake oil level, battery discharge and high temperature in the controller and motor, will trigger the warning sound and lamp. Programming, servicing and parameter adjustments can be easily performed using a dedicated tool.

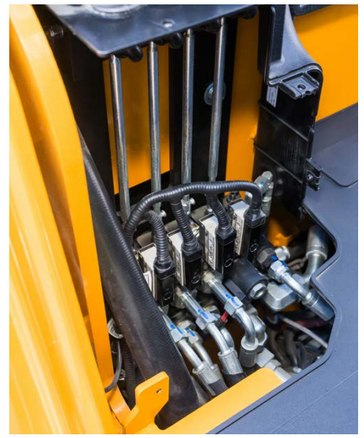


Waterproof and dustproof key switches

To increase the reliability of the electric/electronic system, an ignition key switch with a cap is used. Made by Honeywell, this prevents moisture and dust from getting in.

Sealed micro switches

Sealed micro switches are used in the hydraulic control lever system, keeping it protected from dust and water for greater reliability.



TAKE THE TOUR!

High on productivity

- A low-profile frame design for improved driving and work safety
- LFP battery with excellent price-to-performance characteristics **OPTION**
- IP Class 54 driving and pump motors
- Application of Dual Micom ZAPI Controller
- Enhanced energy efficiency
- Application of power selection button for drive and pump motor

High on convenience

- Ergonomically redesigned operator space
- A new multifunctional digital cluster with superior visibility that can be adjusted easily
- Ergonomic positioned mechanical hydraulic control lever
- Optimised step dimensions for easier and more comfortable access
- Reduced noise
- Full-suspension Grammer seat
- Hydraulic power steering

High on safety

- 2 power modes
- Speed limit control
- Speed limiting function when traveling with elevated load **OPTION**
- Operator Presence Sensing System (OPSS)
- Anti-roll back system prevents the machine from rolling back after coming to a stop on an incline
- Safety warning lamp – blue spot and red zone lights **OPTION**
- Two-channel wireless front & rear cameras **OPTION**
- Rear grip bar & horn **OPTION**

Low on cost of ownership

- Easy battery replacement via side battery removal system
- Additional battery connector specialised for charging
- Controller with high reliability and self-diagnosis capability
- Air-cooled pump motor
- Long-lifetime LED lamps – front/rear worklights and turn signals
- Expanded service area
- Sealed micro switches

16/20BE-X

SPECIFICATIONS

IDENTIFICATION				
	Frontwheel type (Single / Double)		Single	
1.1	Manufacturer (abbreviation)		Hyundai	
1.2	Manufacturer's type designation		16BE-X	20BE-X
1.3	Drive : electric (battery or mains), diesel, petrol, LPG		Electric	
1.4	Operator type : hand, pedestrian, standing, seated, order-picker		Seated	
1.5 (Q)	Rated capacity / rated load	kg	1600	2000
1.6 (c)	Load centre distance	mm	500	
1.8 (x)	Load distance, centre of drive axle to fork	mm	417	
1.10 (y)	Wheelbase	mm	1370	
WEIGHTS				
2.1	Service weight	kg	3323	3677
2.2	Axle loading, loaded front / rear	kg	4375 / 548	4997 / 680
2.3	Axle loading, unloaded front / rear	kg	1704 / 1619	1658 / 2019
WHEELS, CHASSIS				
3.1	Tyres : superelastic, pneumatic, polyurethane		Superelastic	
3.2	Tyre size, front		21 x 8 - 9	
3.3	Tyre size, rear		18 x 7 - 8	
3.5	Wheels, number front / rear (x = driven wheels)		2x / 2	
3.6 (b10)	Tread, front	mm	980	
3.7 (b11)	Tread, rear	mm	945	
DIMENSIONS				
4.1 (α / β)	Tilt of mast / fork carriage forward / backward	Degrees	5 / 7	
4.2 (h1)	Height, mast lowered	mm	1977	
4.3 (h2)	Free lift	mm	35	
4.4 (h3)	Lift height	mm	3000	
4.5 (h4)	Height, mast extended	mm	4020	
4.7 (h5)	Height of overhead guard (cabin)	mm	2125	
4.8 (h7)	Seat height relating to SIP / stand height	mm	1125	
4.19 (l1)	Overall length	mm	3000	3020
4.20 (l2)	Length to face of forks	mm	2100	2120
4.21 (b1)	Overall width	mm	1185	
4.22	Fork dimensions DIN ISO 2331 (l x e x s)	mm	900x100x40	
4.23	Fork carriage ISO 2328, class / type A, B		2 / A	
4.31 (m1)	Ground clearance below mast loaded	mm	115	
4.32 (m2)	Ground clearance centre of wheelbase	mm	115	
4.34.1 (Ast)	Aisle width for pallets 1000 x 1200 crossways (l x w)	mm	3505	3525
4.34.2 (Ast)	Aisle width for pallets 800 x 1200 crossways (w x l)	mm	3705	3725
4.35 (Wa)	Turning radius	mm	1890	1910
PERFORMANCE DATA				
5.1	Travel speed loaded / unloaded	km/h	14 / 15	
5.2	Lift speed loaded / unloaded	mm/s	330 / 500	
5.3	Lowering speed loaded / unloaded	mm/s	500 / 450	
5.6	Max. drawbar pull loaded / unloaded	N	10388 / -	
5.8	Max. gradeability loaded / unloaded	%	16 / -	
ELECTRIC MOTOR				
6.1	Drive motor rating S2 60 min	kW	9	
6.2	Lift motor rating at S3 15%	kW	13	
6.4	Battery voltage, nominal capacity K5	V/Ah	48 / 420	
6.5	Battery weight	kg	707	
6.6	Energy consumption acc. to VDI cycle	kWh/h	7.3	
	Battery compartment dimensions l / w / h	mm	826 x 422 x 744	
DRIVE MECHANISM				
8.1	Type of drive control		AC	
8.11	Service brake		Drum brake	
ADDITIONAL DATA				
10.1	Operating pressure system / attachments	bar	190 / 160	
10.2	Oil volume for attachments	l/min	24	
10.7	Sound level at the driver's ear according to DIN 12053	dB(A)	63	

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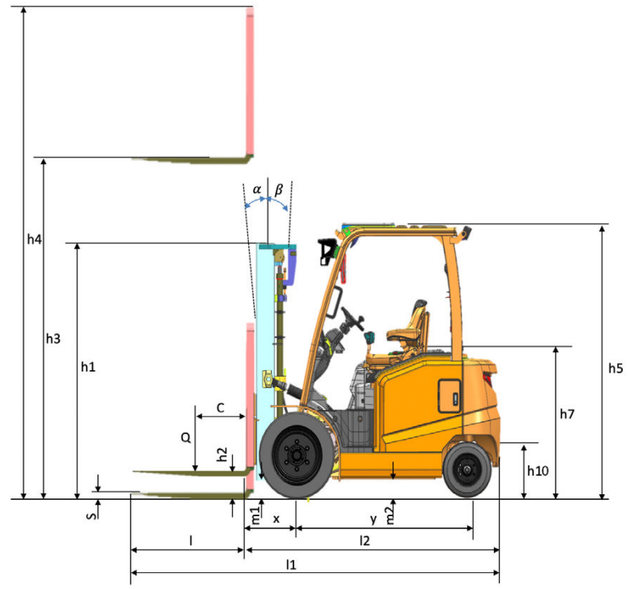
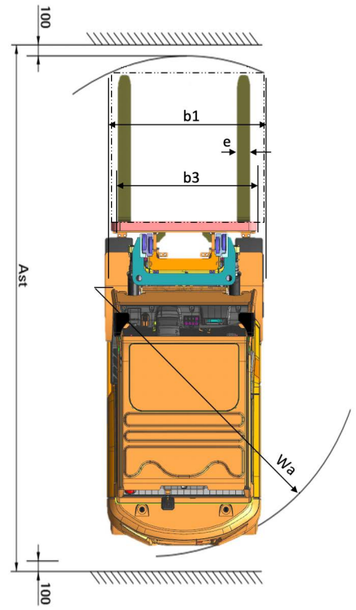
DIMENSIONS





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MAST SPECIFICATION

16BE-X MAST

Mast Type		Maximum fork height h3 (mm)	Max. mast height h4 (mm)		Lowered height h1 (mm)	Free lift height h2 (mm)		Tilt angle fwd / bwd (°)	Load capacity @ LC 500mm (kg)		Truck weight (unloaded) standard configuration** (kg)
			With Backrest	Without Backrest		With Backrest	Without Backrest		No attachment single tyre	Integral side shift single tyre	Single tyre
V-Duplex - no free lift	V300	3030	4010	3497	1998	35	35	5° / 7°	1600	1600	3323
	V330	3330	4310	3797	2128	35	35	5° / 7°	1600	1560	3342
	V350	3530	4510	3997	2228	35	35	5° / 7°	1600	1530	3356
	V400	4030	5010	4497	2478	35	35	5° / 7°	1570	1470	3393
	V450	4530	5510	4997	2828	35	35	5° / 5°	1500	1400	3461
	V500	5030	6010	5497	3078	35	35	5° / 5°	1430	1340	3493
TF-Triplex - free lift - 1 central cylinder	TF400	4040	5020	4507	1878	760	1214	5° / 5°	1540	1440	3468
	TF430	4340	5320	4807	1978	860	1314	5° / 5°	1500	1400	3488
	TF450	4540	5520	5007	2078	960	1414	5° / 5°	1470	1370	3507
	TF470	4740	5720	5207	2128	1010	1464	5° / 5°	1450	1350	3518
	TF500	5040	6020	5507	2228	1110	1564	5° / 5°	1410	1310	3538
	TF550	5540	6520	6007	2428	1310	1764	5° / 5°	1350	1250	3577
	TF600	6040	7020	6507	2628	1510	1964	5° / 5°	1280	1190	3638

** standard configuration: No options, without attachment, forks only, without hydraulic piping

20BE-X MAST

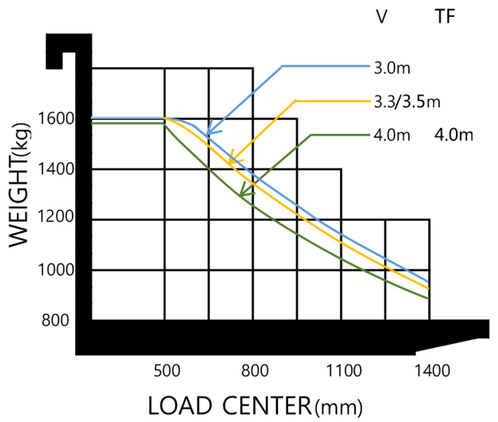
Mast Type		Maximum fork height h3 (mm)	Max. mast height h4 (mm)		Lowered height h1 (mm)	Free lift height h2 (mm)		Tilt angle fwd / bwd (°)	Load capacity @ LC 500mm (kg)		Truck weight (unloaded) standard configuration** (kg)
			With Backrest	Without Backrest		With Backrest	Without Backrest		No attachment single tyre	Integral side shift single tyre	Single tyre
V-Duplex - no free lift	V300	3030	4010	3497	1998	35	35	5° / 7°	2000	2000	3677
	V330	3330	4310	3797	2128	35	35	5° / 7°	2000	1960	3696
	V350	3530	4510	3997	2228	35	35	5° / 7°	2000	1930	3710
	V400	4030	5010	4497	2478	35	35	5° / 7°	1970	1850	3747
	V450	4530	5510	4997	2828	35	35	5° / 5°	1880	1770	3815
	V500	5030	6010	5497	3078	35	35	5° / 5°	1810	1700	3847
TF-Triplex - free lift - 1 central cylinder	TF400	4040	5020	4507	1878	760	1214	5° / 5°	1940	1820	3822
	TF430	4340	5320	4807	1978	860	1314	5° / 5°	1890	1780	3842
	TF450	4540	5520	5007	2078	960	1414	5° / 5°	1860	1750	3861
	TF470	4740	5720	5207	2128	1010	1464	5° / 5°	1830	1720	3872
	TF500	5040	6020	5507	2228	1110	1564	5° / 5°	1790	1680	3892
	TF550	5540	6520	6007	2428	1310	1764	5° / 5°	1720	1610	3931
	TF600	6040	7020	6507	2628	1510	1964	5° / 5°	1640	1540	3992

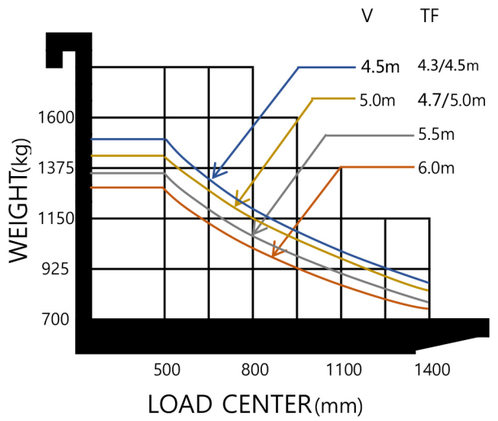
** standard configuration: No options, without attachment, forks only, without hydraulic piping

16/20BE-X

LOAD CAPACITY

16BE-X





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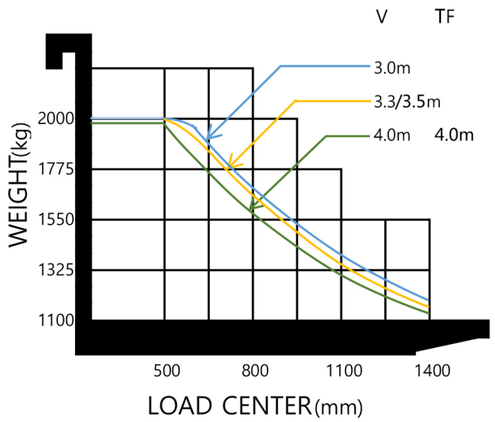

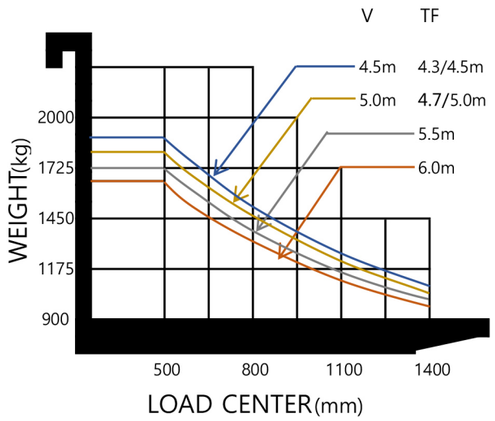

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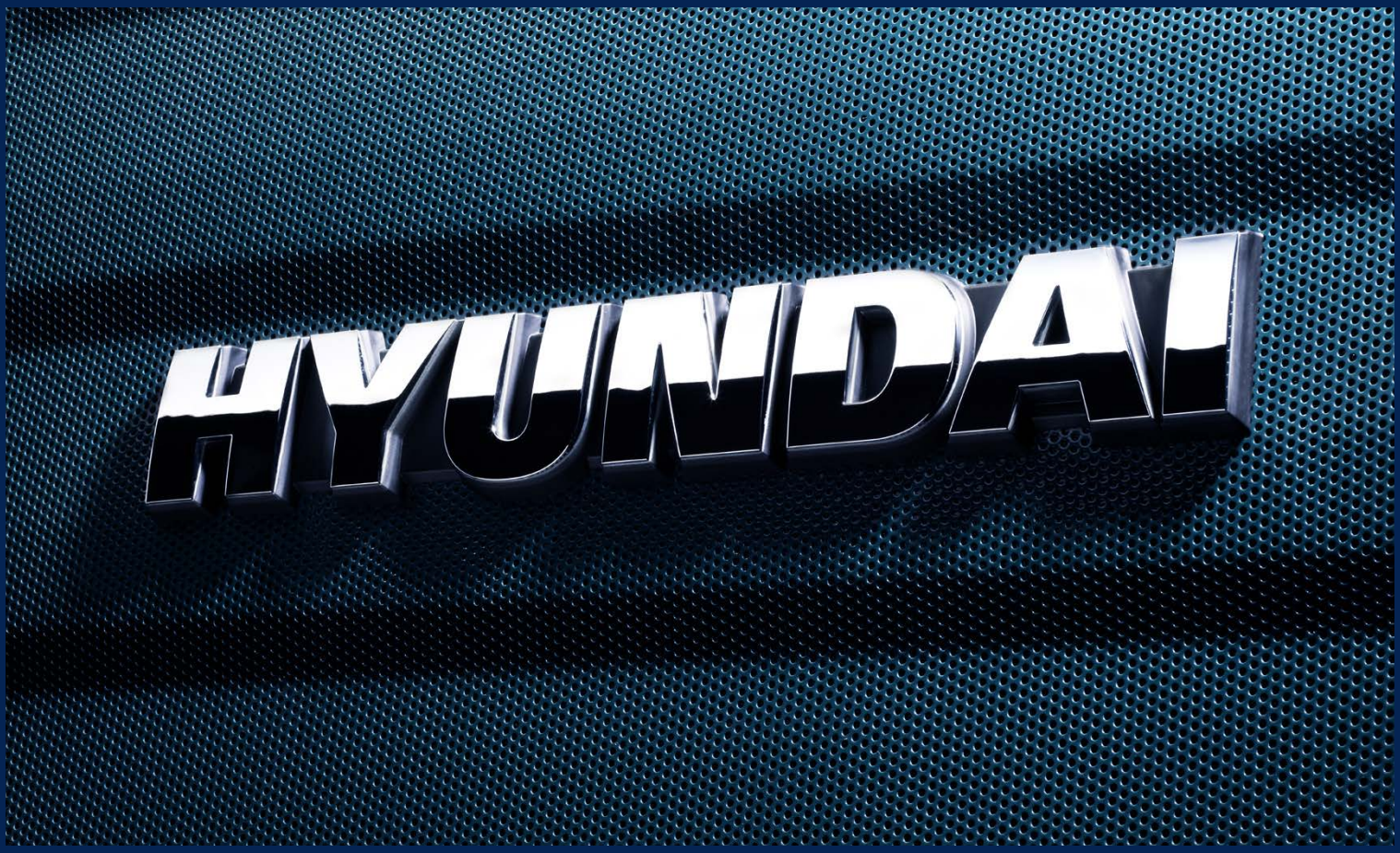
STANDARD/OPTIONAL EQUIPMENT

DESCRIPTION			16BE-X / 20BE-X
MAST & ATTACHMENTS	MAST	V-Duplex - no free lift 3000 ~ 5000mm	□
		TF-Triplex - free lift - 1 central cylinder 4000 ~ 6000mm	□
		Attachment piping for 3, 4 spool	□
	CARRIAGE CLASS	Fork carriage FEM II	●
	LOAD BACKREST	Load backrest	□
	ATTACHMENT	Hook on type	□
		Integral side shift	□
		Side shift (hook on type)	□
	FORKS	Forks length: 1200 ~ 1600 mm	□
HYDRAULIC	MCV	3 spool control valve	●
		2 or 4 spool control valve	□
	LEVER	Manual	●
	OIL	Hydraulic oil VG46	●
		Hydraulic oil VG32 - VG68	□
OPERATION	CABIN	Overhead guard	●
	SEAT	Grammer - vinyl	●
		Armrest L , R	●
		Heated	□
VISIBILITY	MIRROR	Panoramic mirror	●
		Outside mirrors L + R	□
	LIGHTS	Front working light (LED)	●
		Taillights	●
		Rear worklight (LED)	□
		Orange beacon light	□
		Bluespot	□
		Redzone	□
SAFETY		Backup alarm	●
		Rear camera (separate monitor)	□
		Fork camera (separate monitor)	□
CONVENIENCE		Load indicator	□
		Rear grip with horn button	□
BATTERY		Voltage 48V	●
		Li-ion battery 300Ah	□
		Heated Li-ion battery	□
		Lead-acid battery 420 ~ 495 Ah	□
CHARGER		Li-ion charger 100~200A 3ph/400V	□
		Lead-acid charger 60~100A 3ph/400V	□
TYRES		Solid	●
		Pneumatic	□
		Non-marking	□

● Standard □ Optional



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