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HYUNDAI
MATERIAL HANDLING

MOVING YOU FURTHER

25-30
35B-7A



Some of the photos may include optional equipment

HYUNDAI
MATERIAL HANDLING

Your satisfaction is our priority.

Mass-market electric forklifts equipped with outstanding technologies and effective design. HCE's 7A series battery forklift harnessing the latest operating & control technologies.

Upgrading customers' businesses with enhanced stability in travel & operations, AC technologies and reasonable prices.

Work efficiency & productivity

- Powerful controls provided by AC driving motor and pump motor(KDS)
- Low center of gravity (deep drop battery) and enhanced stability in travel & lifting operations
- Spacious leg room for a more comfortable posture
- Full hydraulic steering system
- TCO Li-Ion battery (OPT)

Durability & Reliability

- ZAPI AC Controller
- Robust drive axles equipped with special cast steel and high tensile steel parts
- IP 43 controller

Safety

- Anti-Roll back
- Operator Presence Sensing System(OPSS) (OPT)
- Mast lowering interlock system to prepare against breakage of the hydraulic line
- Toggle type parking brake lever
- Speed limit setting

Easy management

- Travel & pump motor repairable without having to dismount heavy batteries
- Controller located at the top of the weight to ensure easy accessibility
- Smart display : alerts & warnings issued upon failure of electric system
- Self-diagnostics of electric system failure





Power & Performance

High Efficiency & Optimal Performance

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



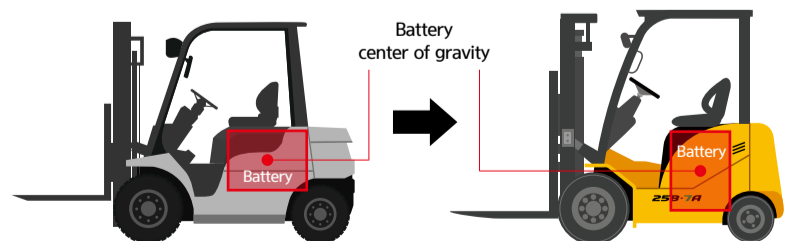
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Strong & Silent driving : Single drive system

The drive system features a parallel assembly of simply structured, high-reliability drive axles and traction motor, which facilitates motor control. By applying parallel structure, the batteries are placed at the bottom where the center of gravity is low, enhancing driving and operational stability. Moreover, all reduction gears are equipped with low-noise helical gears in order to provide powerful driving performance, high utilization rate and a quieter working environment.



Some of the photos may include optional equipment.



Enhanced driving performance and stability : low center of gravity

The driving motor and drive axle are mounted in a parallel structure, so that batteries can be fitted in the space beneath the floor plate. This way of fitting can reduce the center of gravity for batteries and vehicle body, and also decrease the height of the driving seat, which contributes to enhanced stability in driving and working, as well as convenience in operation.

Robust drive axle made of cast steel

Consisting of a 3-piece cast steel housing and high tensile steel components, the drive axle supports the vehicle frame and the journal-structure mast. The axle also has a simple internal structure and a shoe-type service brake, which keeps maintenance costs low.



AC Motor

KDS' AC driving motor and pump motor for electric forklifts boast improved controllability and durability than DC counterparts. Free of any consumables, they require a very low maintenance cost. Moreover, the pump motor features L-shaped mount brackets to ensure easy installation and removal.



New ZAPI controller

The almost noiseless 8 khz (high frequency) ZAPI controller enables high efficiency control and protects the system from low and high voltages and overheating.



Prolonged battery use

When the operator's foot is lifted from the accelerator, the kinetic energy is converted to electrical energy and stored in batteries. The operator can stop the vehicle with the energy generated from the energy conversion.



A wider field of view & stable operations : mast

The outer width of the mast is extended to 720mm to deliver a safe and efficient working environment. The combination-type load roller at the low end of the inner mast and the top end of the outer mast reins in unwanted movements of the mast during operation, ensuring stable operation and increased durability of the mast.

6 Roller combination carriage

Six carriage load rollers are perfect for heavy load conditions, and the side roller at the center of the load roller keeps the carriage steady from lateral impacts, enhancing the operational efficiency and system durability.



Easy & Comfort

Optimized Ergonomics & Fast and Easy Maintenance

An ergonomically designed workspace for operator provides the best comfort and easy access for maintenance.



Some of the photos may include optional equipment.

Ergonomically designed workspace

Ergonomic design focusing on operator convenience and maneuverability further enhances work efficiency. Easy to operate levers and pedals, adjustable handle, suspension seat and a large multi-functional cluster dashboard allow comfortable and efficient driving. A 12V power socket is a standard feature to improve operator convenience.



Some of the photos may include optional equipment.



Grammer seat

An adjustable ergonomic seat provides unmatched comfort. The adjustable armrest further reduces operator fatigue.

- ELR(Emergency Locking Retractable) type seat belt
- Seat heater (STD) & headrest (OPT)

Smart display

Manufactured by the identical maker of the main controller, ZAPI, the smart display indicates the remaining capacity of the battery in real time and issues alert/warning codes upon equipment defect or failure to help operators identify and troubleshoot defects effectively. Moreover, the six buttons on the display enable operators to control equipment performance (e.g. driving characteristics such as speed, EAB time; and lifting speed) and carry out self-diagnostics.



Main functions of the monitor

- ① Electric quantity and speed
- ② Hour meter
- ③ Maintenance requirements / error warning lamp
- ④ Battery discharge indicator
- ⑤ Low brake oil warning lamp



Open footplate

Non-slip and wider open steps offer convenience and safety when entering and exiting vehicle.



Steering wheel

The handle angle can be adjusted with the lever on the left side of the steering wheel to suit the operator's physique and driving habit.



Convenience device

A lamp switch and an emergency switch, installed at the right side of the dashboard, cut power in emergencies and enhance operability. A USB port is also added to enable users to recharge their portable appliances.



Easy maintenance of battery

The battery cover opens fully with the assistance of a gas strut that locks when fully opened to give easy access to battery and prevent the hood from dropping. An automatic electrolyte liquid filling machine is offered as an option for hassle-free battery maintenance.



Easy accessibility controller

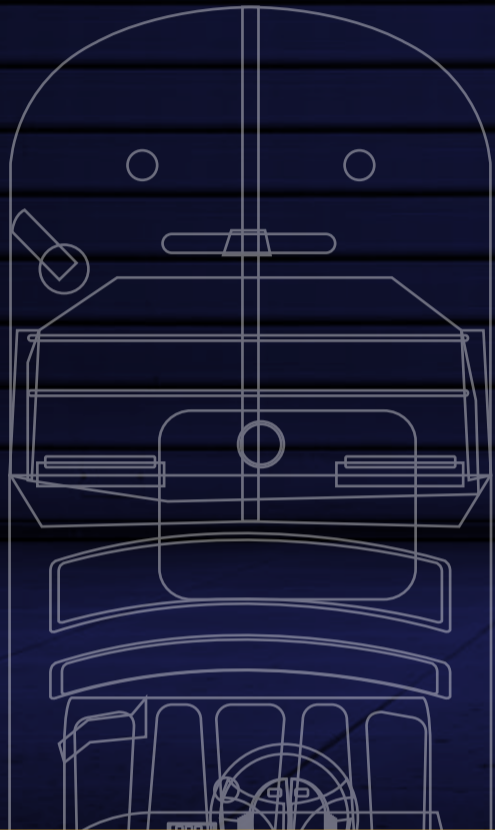
The primary component of the equipment, controller, can be accessed if the top cover of the counterweight is removed. The controller is installed horizontally to ensure easy repair, and the top cover blocks dust and moisture.



Secure & Safety

Advanced Safety

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



Some of the photos may include optional equipment.



EXCELLENT VISIBILITY

ADVANCED SAFETY



You can see the video by scanning the QR code.

Great visibility for safe operation

The optimized lift cylinder array design provides a clear, wide field of vision for the operator. A panoramic mirror expands the driver's view when backing up.



Some of the photos may include optional equipment.



Strong overhead guard

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



Panoramic mirror

The panoramic mirror expands the driver's view when backing up.

Maximum speed control

The operator can set and limit the maximum speed from 10 km/h by 1 km/h unit, given the curve & congestion of an aisle and the shape of the load.

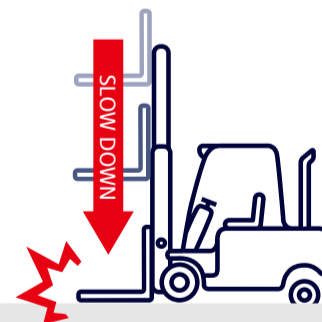
Safety features

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



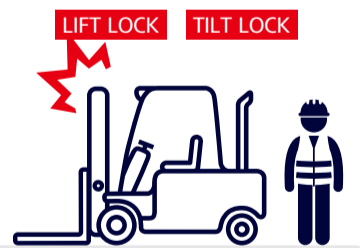
Anti Roll Back system

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



Fork safety features

As the forks are being lowered, a down-control valve maintains a controlled descent 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.



Full LED lamp

The long-lasting, high-illumination full LED working lamp (front & rear) and combination lamp enhance safety and working efficiency when operating at night or in darkness. Also, the standard warning light provides workplace safety.



Parking brake

New hand parking brake device with button greatly reduces fatigue in operation.



Cost-effective lithium-ion batteries (OPT)

Rapidly chargeable lithium-ion batteries ensure sound performance of the equipment with vastly reduced charge times, allowing extended hours of continued operation on a single charge. Moreover, they last at least twice longer than lead/sulfuric acid counterparts, and do not necessitate management of distilled water. Also, being cathode active materials, they use phosphoric acid-iron compounds, which brings down the cost and eliminates the risk of explosion, making them even safer and more cost effective.

Benefits of HCE's lithium-ion batteries



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

- Use of non-explosive phosphoric acid-iron compounds
- 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 2,500 cycles)
- No emission of harmful gases and no restriction on the charging location

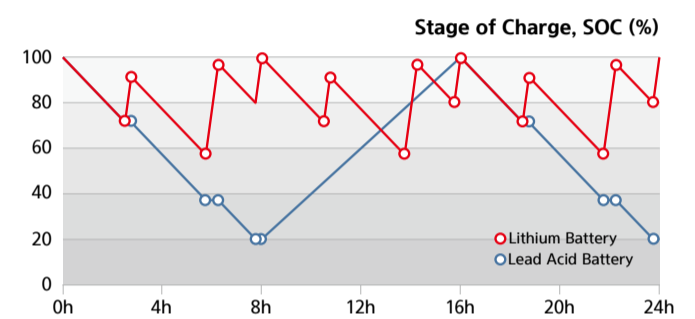


Cost savings

- Charging efficiency higher than lead / sulfuric acid batteries (70% → 95%)
- More affordable than NCM lithium-ion batteries (at ~2/3 of the price of NCM batteries)
- 10,000 operational hours guaranteed for 5 years



- Lithium-ion battery capacity :
 - 25B-7A : 51.2V / 320Ah, 51.2V / 420Ah, 51.2V / 530Ah
 - 30, 35B-7A : 76.8V / 420Ah, 76.8V / 530Ah



• Graph comparing the charge and discharge

7A Series Mast Specification

25/30/35B-7A

25B-7A

Mast Type	Maximum Fork Height	Overall Height				Free lift height		Front overhang	Tilt Angle		Load capacity
		Lowered	Full lift		Without Load Backrest	With Load Backrest	Fwd		Bwd		
			Without Load Backrest	With Load backrest						deg	
mm	mm	mm	mm	mm	mm	mm	deg	deg	kg		
2-STAGE LIMITED FREE LIFT	M300	3000	2015	3615	4017	140	140	454	5	10	2500
	M330	3300	2165	3915	4317	140	140	454	5	10	2500
	M400	4000	2565	4615	5017	140	140	454	5	10	2500
	M450	4500	2815	5115	5517	140	140	454	5	6	2100
2-STAGE FULL FREE LIFT	FM300	3000	2015	3615	4017	1385	985	477	5	10	2500
	FM330	3300	2165	3915	4317	1535	1135	477	5	10	2500
3-STAGE FULL FREE LIFT	TFM435	4350	2025	5021	5366	1390	990	490	5	6	2200
	TFM450	4500	2075	5171	5516	1440	1040	490	5	6	2000
	TFM480	4800	2175	5471	5816	1540	1140	490	5	6	1700
	TFM550	5500	2440	6171	6516	1800	1400	490	3	6	1200
TFM600	6000	2625	6671	7016	1990	1590	490	3	6	800	

* : Standard
 ※TS-Mast : Wide Visible 3-Stage Full Free Lift Mast with 2 Free Lift Cylinders.

30B-7A

Mast Type	Maximum Fork Height	Overall Height				Free lift height		Front overhang	Tilt Angle		Load capacity
		Lowered	Full lift		Without Load Backrest	With Load Backrest	Fwd		Bwd		
			Without Load Backrest	With Load backrest						deg	
mm	mm	mm	mm	mm	mm	mm	deg	deg	kg		
2-STAGE LIMITED FREE LIFT	M300	3000	2045	3640	4140	165	165	475	5	10	3000
	M330	3300	2195	3940	4440	165	165	475	5	10	3000
	M400	4000	2595	4640	5140	165	165	475	5	10	2850
	M450	4500	2845	5140	5640	165	165	475	5	6	2550
2-STAGE FULL FREE LIFT	FM300	3000	2045	3640	4140	1390	935	490	5	10	3000
	FM330	3300	2195	3940	4440	1540	1085	490	5	10	3000
3-STAGE FULL FREE LIFT	TFM435	4350	2045	5015	5490	1460	925	500	5	6	2800
	TFM450	4500	2095	5165	5640	1510	975	500	5	6	2500
	TFM480	4800	2195	5465	5940	1610	1075	500	5	6	2250
	TFM550	5400	2420	6065	6540	1835	1300	500	3	6	1650
TFM600	6000	2645	6665	7140	2060	1525	500	3	6	1200	

* : Standard
 ※TS-Mast : Wide Visible 3-Stage Full Free Lift Mast with 2 Free Lift Cylinders.

35B-7A

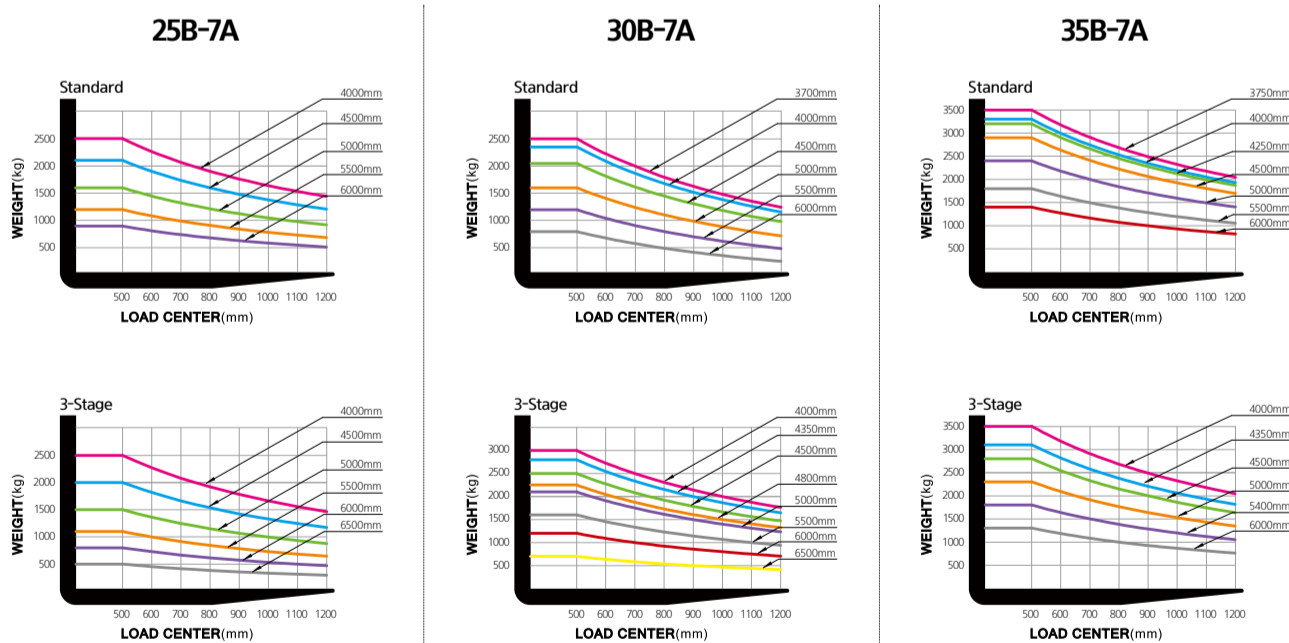
Mast Type	Maximum Fork Height	Overall Height				Free lift height		Front overhang	Tilt Angle		Load capacity
		Lowered	Full lift		Without Load Backrest	With Load Backrest	Fwd		Bwd		
			Without Load Backrest	With Load backrest						mm	deg
2-STAGE LIMITED FREE LIFT	M300	3000	2120	3710	4140	170	170	505	5	10	3500
	M330	3300	2270	4010	4440	170	170	505	5	10	3500
	M400	4000	2670	4710	5140	170	170	505	5	10	3300
	M450	4500	2920	5210	5640	170	170	505	5	6	2900
2-STAGE FULL FREE LIFT	FM300	3000	2120	3700	4100	1415	1000	505	5	10	3500
	FM330	3300	2270	4000	4400	1565	1150	505	5	10	3500
3-STAGE FULL FREE LIFT	TFM435	4350	2120	5100	5500	1460	925	522	5	6	3100
	TFM450	4500	2170	5250	5650	1510	975	522	5	6	2800
	TFM480	4800	2270	5550	5950	1610	1075	522	5	6	2500
	TFM550	5400	2435	6150	6550	1835	1300	522	3	6	1800
TFM600	6000	2720	6750	7150	2060	1525	522	3	6	1300	

* : Standard

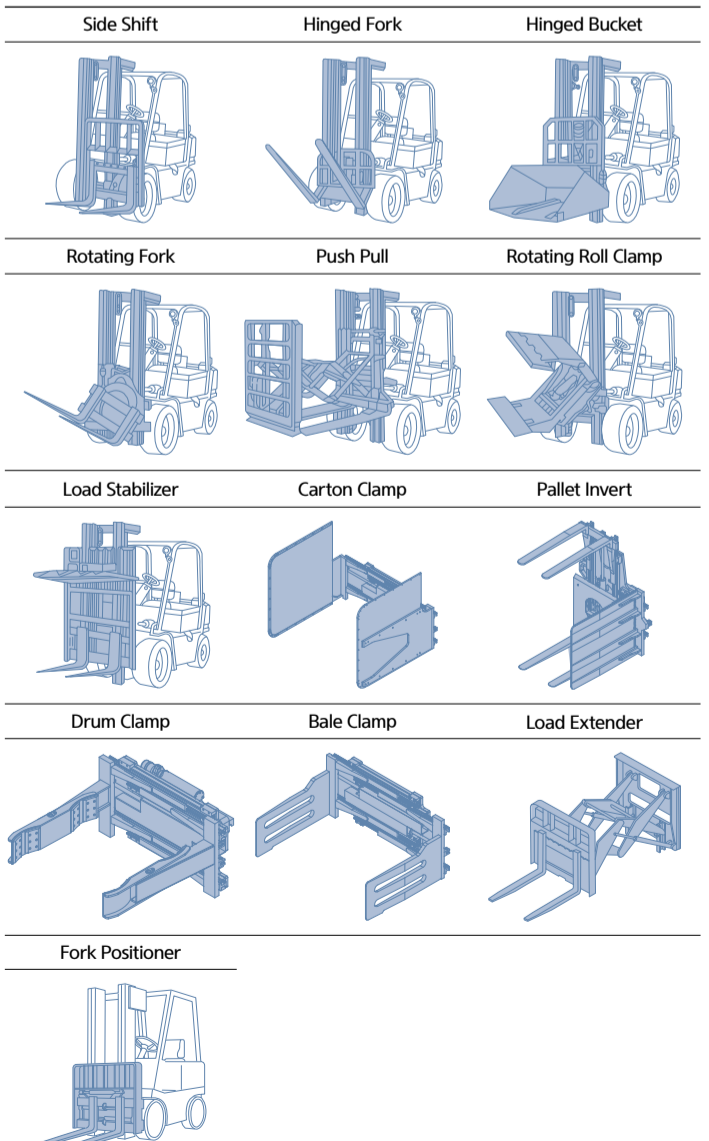
※TS-Mast : Wide Visible 3-Stage Full Free Lift Mast with 2 Free Lift Cylinders.

7A Series

Load Capacity



Various Attachments



Optional Items

- Tire : Pneumatic tire, Non-marking tire
- Non-suspension+Seat switch
- Grammer seat switch, Grammer seat switch+belt switch
- Fork(mm) : 1070(STD), 1220, 1370, 1520, 1670, 1820, 2120
- Carriage(mm) : 1040(STD), 1300
- MCV : 2-spool(STD), 3-spool, 4-spool
- Beacon lamp, Rear horn, Fire extinguisher
- Full cabin, Air-conditioner, heater, Front+Top+Rear
- Mast OPSS
- Load weight indicator
- Front camera, Front/rear camera
- Auto tilt leveling, License lamp

* Please select the seat with switch, if you need mast OPSS.

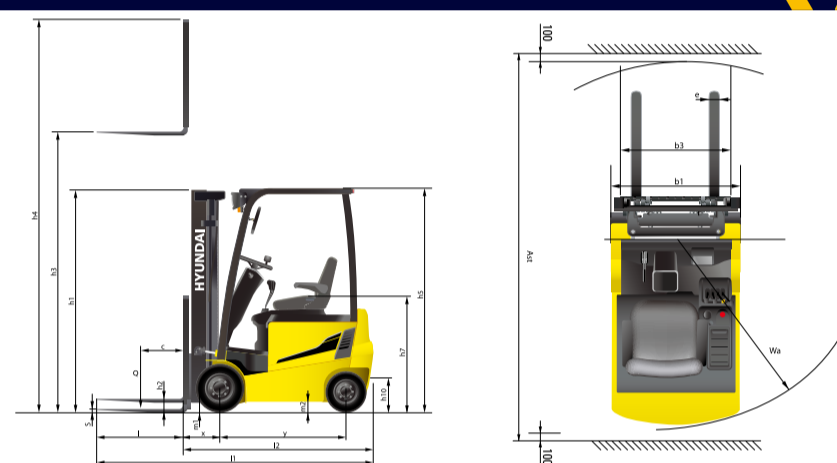
* Exterior designs and forklift options in this catalog may change for improvement

Specification

Identification				
1.1	Manufacturer (Abbreviation)	Hyundai		
1.2	Manufacturer's Type Designation	25B-7A	30B-7A	35B-7A
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 2500	3000	3500
1.6	Load Center Distance	mm 500	500	500
1.8	Load Distance, Center Of Drive Axle To Fork	mm 454	476	495
1.9	Wheelbase	mm 1485	1670	1690
Weights				
2.1.1	Service Weight	Kg 4160	4750	5250
2.2	Axle Loading, Loaded Front/Rear	Kg 5950 / 710	6897.5 / 852.5	7790 / 963
2.3	Axle Loading, Unloaded Front/Rear	kg 1750 / 2410	2065 / 2685	2285 / 2968
Tires, Chassis				
3.1	Tires : Solid Rubber, Superelastic, Pneumatic, Polyurethane	Solid Tire	Solid Tire	Solid Tire
3.2	Tire Size, Front	23×9-10	23×9-10	23×10-12
3.3	Tire Size, Rear	18×7-8	18×7-8	200/50-10
3.5	Wheels, Number Front / Rear (X = Driven Wheels)	2 / 2	2 / 2	2 / 2
3.6	Tread, Front	Mm 1058	1065	1124
3.7	Tread, Rear	mm 960	980	1010
Dimensions				
4.1	Tilt Of Mast/Fork Carriage Forward/Backward	° 5/10	5/10	5/10
4.2	Height, Mast Lowered	mm 2015	2045	2120
4.3	Free Lift	mm 140	165	170
4.4	Lift Height	mm 3000	3000	3000
4.5	Height, Mast Extended	mm 3000	3000	3000
4.7	Height Of Overhead Guard (Cabin)	mm 2152	2152	2138
4.8	Seat Height / Stand Height Rel. To Sip	mm 1050	1050	1050
4.12	Coupling Height	mm 175	175	175
4.19	Overall Length	mm 2152	2152	2138
4.20	Length To Face Of Forks	mm 3356.5	3618	3709
4.21	Overall Width	mm 1285	1285	1365
4.22	Fork Dimension	mm 1070×122×40	1070×125×45	1070×130×50
4.23	Fork Carriage ISO 2328, Class / Type A, B	- A	A	A
4.24	Fork-Carriage Width	mm 250-1000	250-1060	250-1060
4.31	Ground Clearance, Below Mast, Loaded	mm 40	45	50
4.32	Ground Clearance, Center Of Wheelbase	mm 98	98	83
4.33	Aisle Width For Pallets 1000 X 1200 Crossways (L X W)	mm 3732	4023	4100
4.34	Aisle Width Of Pallets 800 X 1200 Crossways (W X L)	mm 3932	4223	4300
4.35	Turning Radius	mm 2095	2349	2405
4.36	Smallest Pivot Point Distance	mm 600	600	600

Performance Data					
5.1	Travel Speed, Loaded / Unloaded	km/h	15 / 16	15 / 16	15 / 16
5.2	Lift Speed, Loaded / Unloaded	mm/s	280 / 440	280 / 384	280 / 384
5.3	Lowering Speed, Loaded / Unloaded	mm/s	470 / 430	400 / 315	400 / 315
5.5	Drawbar Pull, Loaded / Unloaded	KN	12.9 / 8.1	15.2 / 9.3	17.1 / 10.3
5.6	Max. Drawbar Pull, Loaded / Unloaded	KN	12.9 / 8.1	15.2 / 9.3	17.1 / 10.3
5.7	Gradeability, Loaded / Unloaded	%	15 / 15	15 / 15	15 / 15
5.8	Max. Gradeability, Loaded / Unloaded	%	15 / 15	15 / 15	15 / 15
5.9.1	Acceleration Time, Loaded / Unloaded (Over 10M)	s	5	5	5
5.10	Service Brake	-	hydr.	hydr.	hydr.
E - Motor					
6.1	Drive Motor Rating S2 60 Min	kW	8.5	10.5	10.5
6.2	Lift Motor Rating At S3 15%	kW	11.0	15.0	15.0
6.3	Battery Acc. to Din 43531/35/36 A, B, C, No				
6.4	Battery Voltage, Nominal Capacity K5	V/Ah	48 / 600	80 / 500	80 / 500
6.5	Battery Weight	Kg	1100	1420	1420
6.6	Energy Consumption Acc. to Vdi Cycle	kWh/h			
6.7	Battery Compartment Dimensions L/W/H	mm	1028 / 500 / 730 (780)	1028 / 674 / 730 (780)	1028 / 674 / 730 (780)
Addition Data					
8.1	Type Of Drive Control	-	AC	AC	AC
8.2	Operating Pressure, System / Attachments	bar	17.5	17.5	17.5
8.3	Oil Volume For Attachments	LPM			
8.4	Sound Level At The Driver's Ear According to Din 12053	dB	75	75	75
8.5	Trailer Coupling, Type Din	-	PIN	PIN	PIN

Dimension



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MEMO