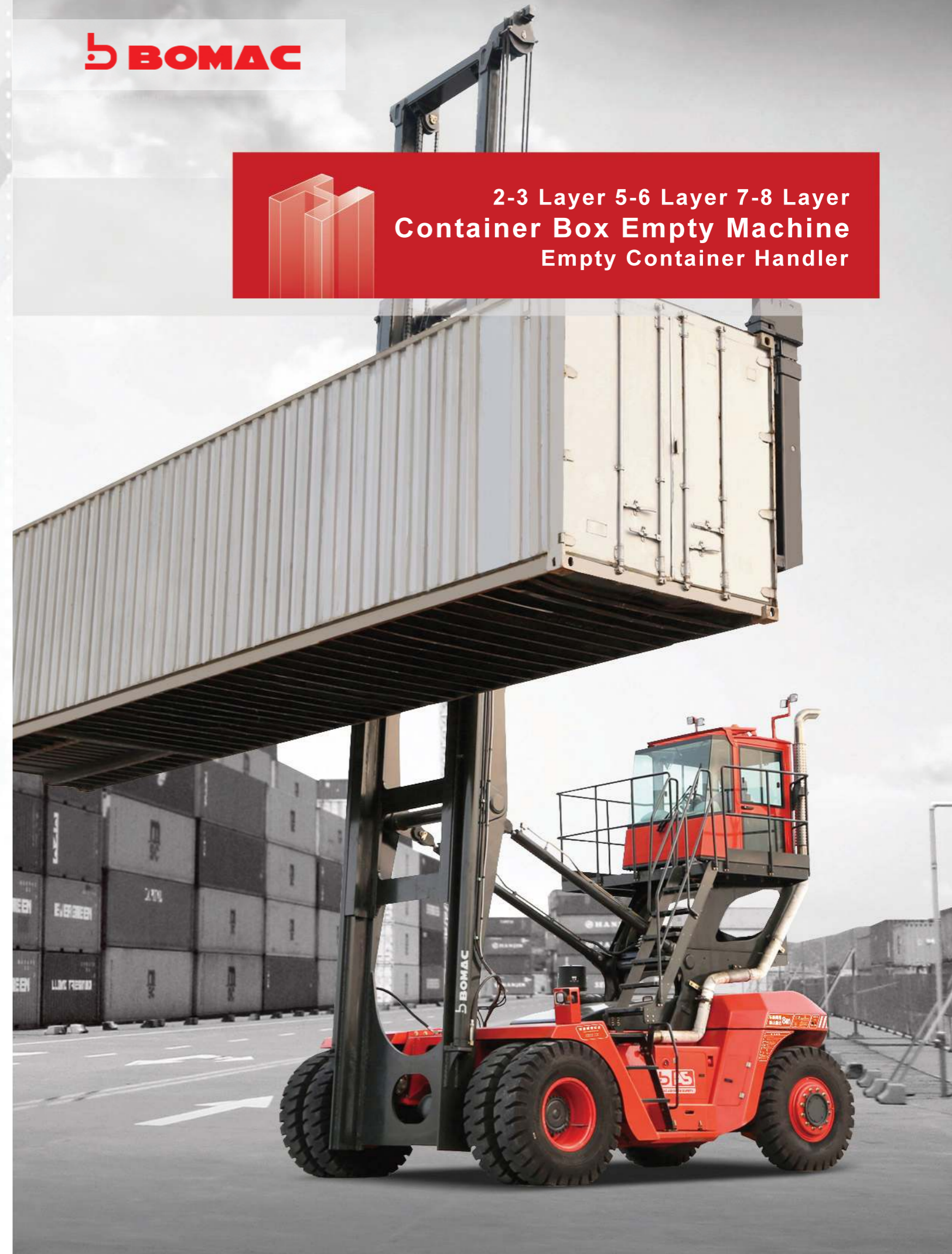


BOMAC



2-3 Layer 5-6 Layer 7-8 Layer
Container Box Empty Machine
Empty Container Handler



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Design Means

- ▶ The latest design method and means are applied with the help of computer technology in the research and development course of the complete machine. The key structures like frame and gantry etc have undergone the optimum design means such as CAE finite element analysis, modal analysis and dynamics simulation analysis etc and take the accurate theoretic data support as their design base so that the stability and the structure strength of the whole car conform to the European design standard.



A. Engine

- ▶ **Truck for 2-3 layers**
BOMAC High-performance diesel engine with 6 cylinders turbo charger, 118kw rated power and 640Nm max torque is assembled on the truck. With optimized air distribution system and advanced fuel system, the engine has low oil consumption, low noise, compact structure, stable power output and so on.
- ▶ **Truck for 5-6 layers**
CUMMINS QSB6.7 diesel engine imported from America is assembled on the truck. The engine has 6 cylinders turbo charger and meets American Tier III emission standard (Chinese Tier III). Accessories specialized for the engine are used to ensure engine normal maintenance and usage.
- ▶ **Truck for 7-8 layers**
VOLVO TAD851VE engine meets EURO IIIA emission standard (China stage III). It has large torque in low speed and quick response. Compared with engine meeting II emission standard, oil consumption is reduced by 2.5% and it has good fuel efficiency. With CAN bus technology, the harness of the completed truck is simplified. Engine DCU is installed and interaction can be realized between DCU and engine through CAN bus. Engine data and fault can be display clearly on liquid crystal meter. Special engine assessments such as air cleaner and muffler can improve engine service lift and reliability.







B. Good thermal equilibrium temperature

- ▶ Under the ambient temperature of 40 °C, the water thermal equilibrium temperature of the engine is controlled below 100 °C, the thermal equilibrium temperature of drive oil under 90 °C and the thermal equilibrium temperature of the hydraulic oil under 80 °C, which can solve in a better way the common problems of oil and water leakage due to the aging of the sealing elements, earlier abrasion of the engine and incapable gear box(power transmission is insufficient) etc so that the elements of all systems can work under the good temperature condition , thus raising the reliability of the whole car and lowering the fault rate.

C. High air cleaner filter fineness

- ▶ Air cleaner is assembled on the truck. With cyclone type pre-filter and two-end filter, the air cleaner has high filter fineness and thus engine air suction cleanness is ensured.





D. Drive axle

▶ Truck for 2-3 layers

Drive axle is assembled on the truck. The drive axle has reliable performance, advanced technology, caliper disc brake, nice cost performance, good anti-pollution ability, good cooling ability and so on.



▶ Truck for 5-8 layers

Drive axle: The heavy-duty drive axle (including parking brake) of KESSLER Company, Germany is used. The axle, with large capacity and brake torque, is safe and reliable. The multiple-piece wet type is fully enclosed, maintenance free, safe and reliable and is equipped with caliper disc parking brake.



E. Transmission box+ Torque converter

▶ Truck for 2-3 layers

Bomac self-made special transmission box is assembled on the truck. The transmission box has two front gears and two rear gears, electro-hydraulic gear shifting and it is reliable and safe.



▶ Truck for 5-6 layers

ZF3WG211 transmission box is assembled on the truck. Control part integrated with multi control program on the drive axle can achieve all kinds of control operation easily. Fault diagnosis tester in the transmission box simplifies maintenance and service greatly.



▶ Truck for 7-8 layers

ZF3WG211 transmission box is installed on the truck. The control part with several control programs can realize all kinds of operations. It also has fault diagnosis which makes maintenance and service easier.



F. Hydraulic system

▶ Truck for 2-3 layers

Main parts are imported parts. Pilot controlled control valve is adopted on the truck; knob operation is easy which thus reduces operator fatigue.



▶ Truck for 5-6 layers

Main pumps are imported from America. The control valve has pilot control with steering priority. Imported Parker parts are assembled on the truck. Independent operation knob and control valve achieve long distance control. It is easy to operate and it is safe and comfort. EATON steering unit is assembled on the truck.

▶ Truck for 7-8 layers

The products of PARKER Company is used which is not only efficient but also reliable. It is operated with single handle and piloted control. It can relieve the fatigue of the drivers because of simple operation and energy saving. The hydraulic oil circuit equipped with forced cooling system can meet the requirements of high intensity work. Fully hydraulic load sensing hydraulic system
Reasonable design ensure energy saving and high efficiency
EATON steering unit and priority valve

G. Braking system

▶ Truck for 2-3 layers

Brake system: the brake system is of gas-liquid caliper disc type. It has short brake distance, high reliability and low maintenance cost.

▶ Truck for 5-8 layers

Fully-hydraulic dynamic braking system

The braking elements such as brake valve and replenishing valve etc use the products from America. The connectors and rubber pipes etc choose the brand products, USA and equipped with multi-stage protection devices, so they are safe and reliable..

Service brake low pressure alarm.

Over-temperature alarm.

System obstruction alarm.

H. Electric system

- ▶ The control part adopts modularized and high integrated central distribution box using advanced and programmable 3D matrix technology which is easier for change. LED lamps with bright lighting, low consumption and long service life are installed. With integrated dash board and CAN BUS technology, truck information is displayed clearly and it is easy to be read. AMP and DELPHI connector is dust proof and water proof. The design is concise and easy for use. The system is highly reliable.



Dual-Starting and dual flameout (Truck for 7-8 layers)

- ▶ The truck has dual starting (key starting, screen switch starting) and dual flameout (key flameout and screen switch starting) controls to facilitate operation.

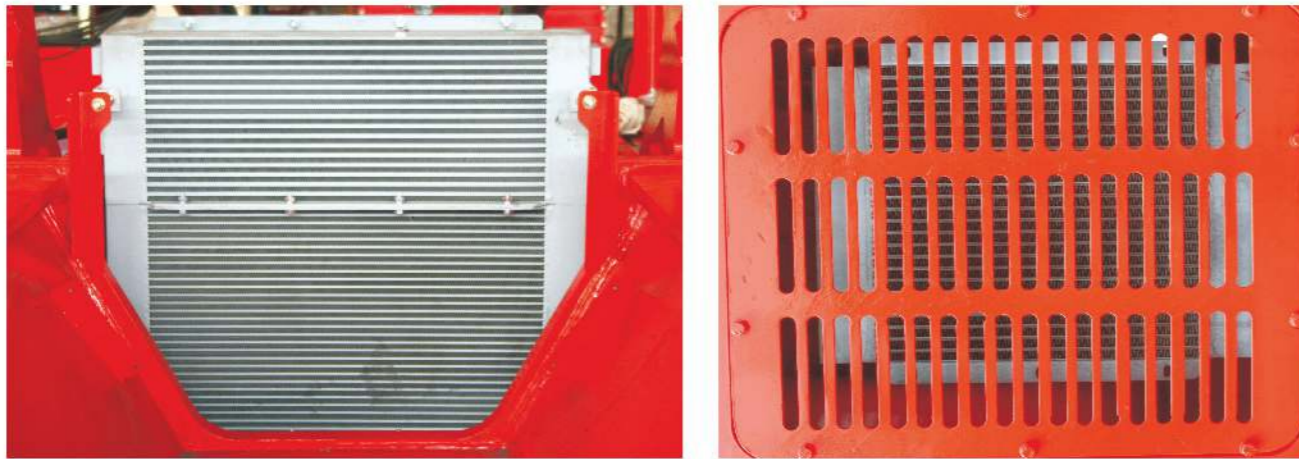


Modular design to reduce the fault points and raise the reliability
Dust and water resistance



J. Heat radiation system

- ▶ Well-known brand radiator is used, which applies water and oil compound technology, is arranged in single layer and facilitates flushing and maintenance. The superior heat dissipation performance ensures that the parts of each system can work under the good temperature condition, thus effectively cutting down the fault rate and raising the reliability of the whole car.



K. The drive seat in the drive cab adopts full suspension and vibration attenuation structure and can be adjusted in all directions

- ▶ The drive seat in the drive cab adopts full suspension and vibration attenuation structure and can be adjusted in all directions . Each operation pedals and handle position are designed according to the principle of human engineering and can greatly reduce the labor intensity . The drive cab is designed with transparent glasses on all sides and wide field of vision and is furnished with air conditioner as well.



To broaden the gantry design by making use of the optimum design means, which improves the field of vision of the whole car and strengthens the resistance to torsion of gantry as well so that the ascending and descending are more smooth and reliable.



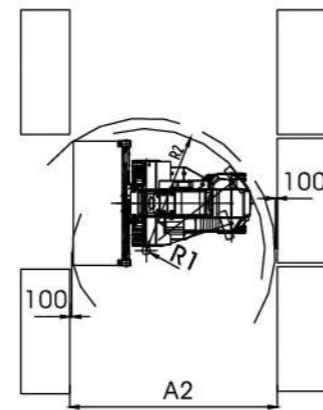
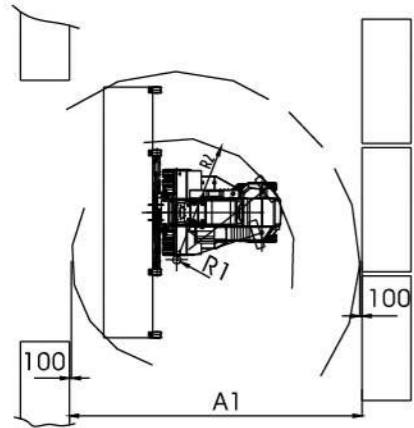
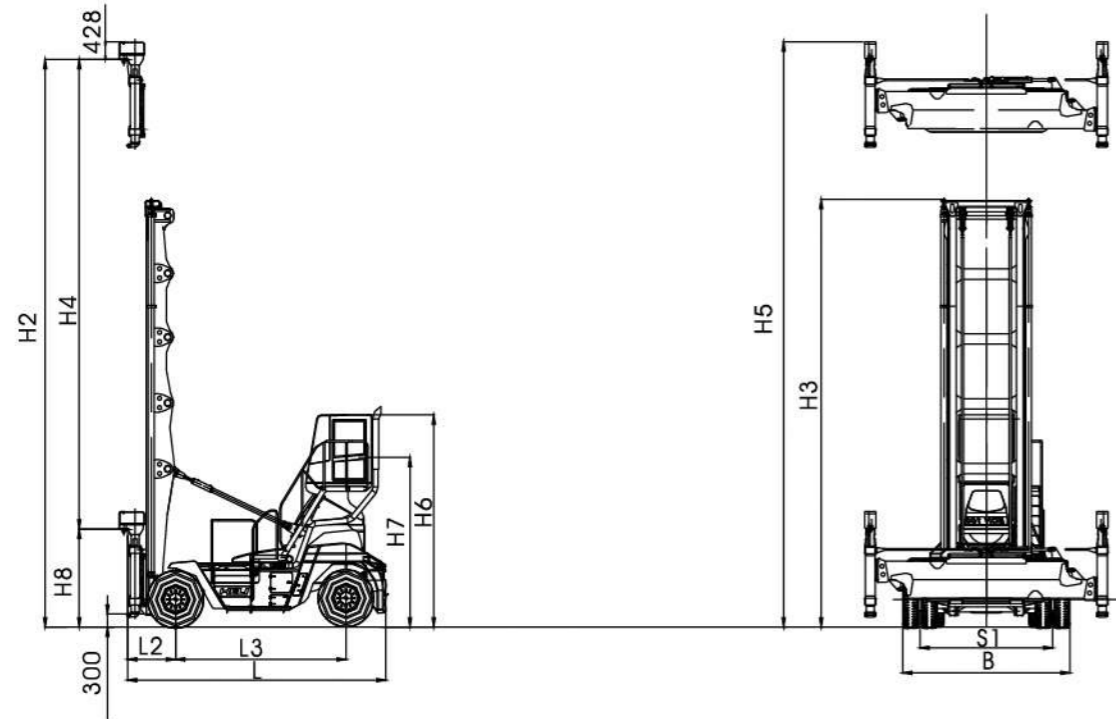
L. Spreader

▶ Truck for 2-3 layers

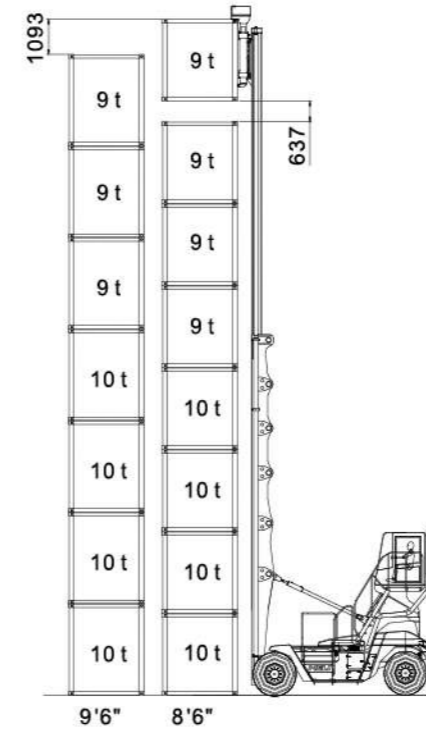
Spreader is specially designed for 20 feet containers and pouring boxes. It is welded by high quality structural steel and it has good strength and view.

▶ Truck for 5-8 layers

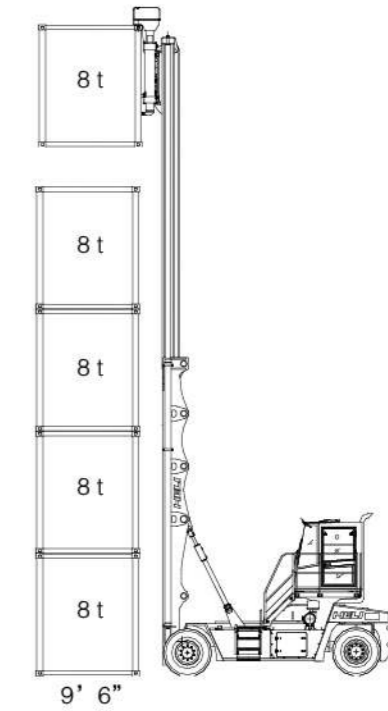
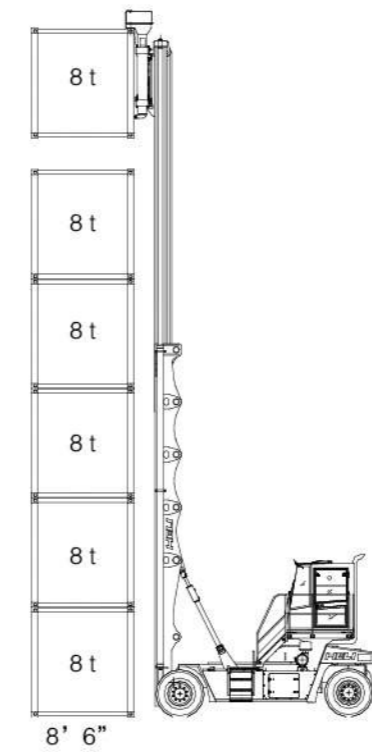
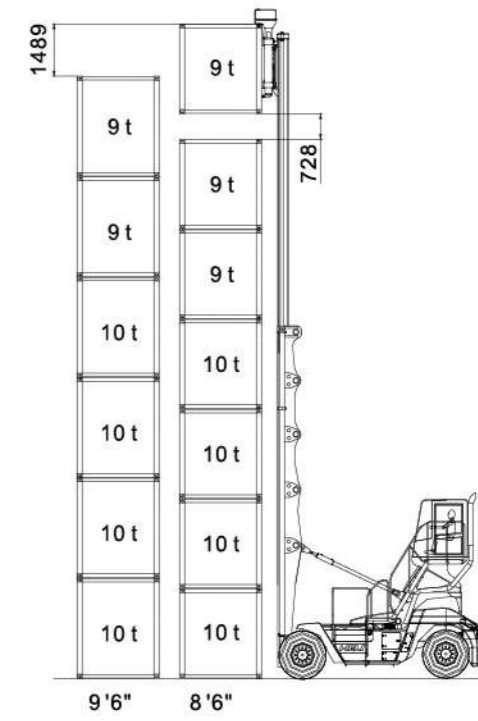
The new type spreader from ELME Company, Sweden is used, which is made with high quality steel and of single-tube structure and has high strength, good field of vision and safe interlocking function. It can realize the actions of sidesway, expansion, contraction, unlocking and locking etc and has the functions of spreader status indicator and auxiliary lamplight lighting etc.



Vehicle Load Map



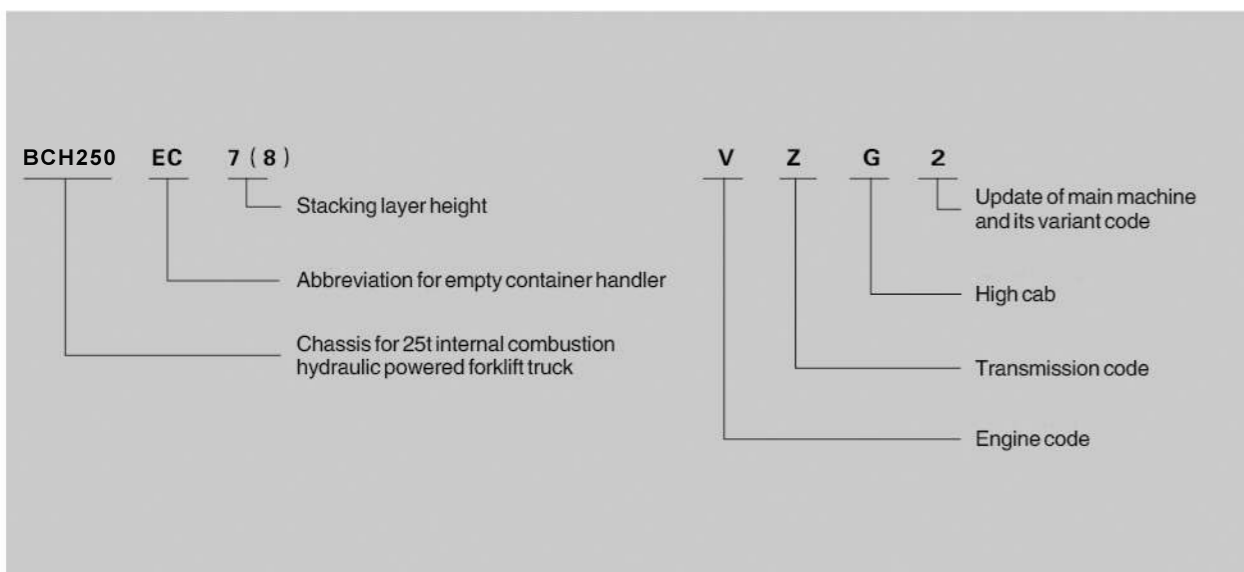
Vehicle Load Map



M. Flexible and handy operation on site



N. Model description



Performance specifications				
Model			BCH120EC2-WX1 BCH120EC2-CU	BCH120EC3-WX1 BCH120EC3-CU
Rated capacity	Q	kg	4500	
Load center	C	mm	1220	
Max. handling layers			2(8" 6' /9" 6')	3(8" 6)
Length of container lifted		ft	20	
Max. Rotary lock height	H2	mm	6245	8245
Min. rotary lock height	H8	mm	2245	
Mast tilt angle (front/rear)		deg	6/12	3/6
Lateral displacement of spreader		mm	± 150	
Stall speed		km/h	29/27	
Max. lifting speed (loaded/unloaded)		mm/s	350/370	
Max. descending speed (loaded/unloaded)		mm/s	300 ≤ Foundation ≤ 600	
Gradeability (loaded)		%	28	
Wheel base	L3	mm	3000	
Tread (front/rear)	S1/S2	mm	1950/2050	
Length(with attachment)	L	mm	5060	
Width	B		2520	
Height (mast retraction)	H3	mm	3715	4815
Min. turning radius		mm	5000	
Engine	Manufacturer/Model		CA6DF3/CUMMINS QSB6.7	
Diesel Engine	Rated output/Speed		kW/rpm 118/2200/119/2300	
	Max. Torque/Speed		Nm/rpm 640/1300-1700/732/1500	
Gearbox Torque Converter	Manufacturer/Model		All-Round Gearbox	
	Shift gears (forward/backward)		2/2	
	Shift type		Electro liquid shift	
Tire	Front wheel size		11.00-20-18PR	
	Rear wheel size		11.00-20-18PR	
	Air pressure (front /rear)		kPa	900/900

Performance specifications				
Model			BCH180EC5-CZ	BCH180EC6-CZ
Rated capacity	Q	kg	See load diagram	
Load center	C	mm	1220	
Max. handling layers			5(8" 6' /9" 6')	6(8" 6)
Length of container lifted		ft	20/40	
Max. Rotary lock height	H2	mm	15220	16300
Min. rotary lock height	H8	mm	2300	
Mast tilt angle (front/rear)		deg	3/3	
Lateral displacement of spreader		mm	± 300	
Stall speed		km/h	27/25	
Max. lifting speed (loaded/unloaded)		mm/s	420/460	
Max. descending speed (loaded/unloaded)		mm/s	300 ≤ Foundation ≤ 600	
Gradeability (loaded)		%	30	
Wheel base	L3	mm	4000	
Tread (front/rear)	S1/S2	mm	2800/2000	
Length(with attachment)	L	mm	6000	
Width	B		6065	
Height (mast retraction)	H3	mm	8839	9379
Min. turning radius		mm	5400	
Engine	Manufacturer/Model		CUMMINS /QSB6.7	
Diesel Engine	Rated output/Speed		kW/rpm	
	Max. Torque/Speed		Nm/rpm	
Gearbox Torque Converter	Manufacturer/Model		ZF/3WG171	
	Shift gears (forward/backward)		3/3	
	Shift type		Automatic	
Tire	Front wheel size		12.00-20-20PR	
	Rear wheel size		12.00-20-20PR	
	Air pressure (front /rear)		kPa	
				880/880

Performance specifications				
Model			BCH250EC7-VZG2	BCH250EC8-VZG2
Rated capacity	Q	kg	See load diagram	
Load center	C	mm	1220	
Max. handling layers			7(8'6")	8(8'6")
Length of container lifted		ft	20/40	
Max. Rotary lock height	H2	mm	18865	21365
Min. rotary lock height	H8	mm	2255/2300	
Mast tilt angle (front/rear)		deg	3/3	
Lateral displacement of spreader		mm	± 500/ ± 600	
Stall speed		km/h	24/22	
Max. lifting speed (loaded/unloaded)		mm/s	520/600	
Max. descending speed (loaded/unloaded)		mm/s	300 ≤ Foundation ≤ 600	
Gradeability (loaded)		%	28	
Wheel base	L3	mm	4250	
Tread (front/rear)	S1/S2	mm	3290/2395	
Length(with attachment)	L	mm	6440	
Width	B		6065	
Height (mast retraction)	H3	mm	10370	11620
Min. turning radius		mm	5920	
Engine	Manufacturer/Model		Volvo /TAD851VE	
Diesel Engine	Rated output/Speed		kW/rpm	
	Max. Torque/Speed		Nm/rpm	
Gearbox Torque Converter	Manufacturer/Model		ZF/3WG211	
	Shift gears (forward/backward)		3/3	
	Shift type		Automatic	
Tire	Front wheel size		14.00-24-28PR	
	Rear wheel size		14.00-24-28PR	
	Air pressure (front /rear)		kPa	
				880/880

- Our products are constantly updated and improved. Parameters and design are subject to change without prior notice.
- The configuration and color of the products in figures may be different from the actual delivered model. Please in kind prevails.