Dual Fuel Sit-Down Forklift

D-9 Series

160D-9L, 180D-9B

36,000 lbs. capacities

HYUNDAI
MATERIAL HANDLING
NO ONE DELIVERS MORE

Your satisfaction is our priority.

Proven Technology.
Hyundai 9 Series Diesel Forklift

The Hyundai 9 Series big diesel trucks are built for heavy lifting. Cutting big jobs down to size with its superior performance and providing optimal fuel efficiency, the Hyundai 9 Series big diesel truck offers outstanding durability based on its application of high-quality hydraulic and functional components designed for large and heavy load duties, as well as a comfortable and productive operator's compartment, and low cost of ownership.

Excellent Performance
- Eco-friendly, powerful, 274hp Cummins QSL9 Engine
- Fully automatic ZF Electronic Transmission with 3 forward-reverse speeds
- Wet Disc Brake & Kessler D81 Axle
- 3-stage TS Mast (OPT)

Enhanced Safety at the Jobsite
- Auto Parking Brake
- Real-time notification of rear Wheel Steering Angle (OPT)
- Operator Presence Sensing System (OPSS)
- Adjustable Max Speed Limit
- Machine Inclination Warning

Comfortable and Safe Operation
- Deluxe cabin equipped with fully automatic air conditioning
- Hydraulic Pilot Valve Lever
- Load Weight Indicator (OPT)
- Password Starting System

Ease of Maintenance
- One-touch electric motor-driven tilting cabin
- Notification of pending service intervals
- Equipment Fault Diagnostics

Some of the photos may include optional equipment

Power & Performance

High Efficiency, Optimal Performance

Robust, refined, and luxuriously designed, the 160D-9L & 180D-9B offer increased power and fuel economy. These models will help you get the job done in any work environment.

Some of the photos may include optional equipment

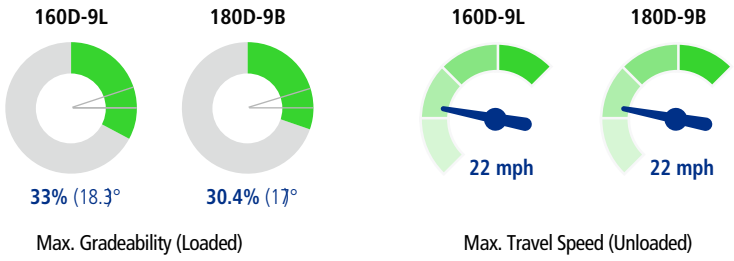
Powerful and economical Cummins QSB6.7 engine

The six-cylinder VGT (variable-geometry turbocharged) QSB6.7 engine, equipped with a reliable and durable German engineered Bosch fuel system, exhibits lower vibration than other engines, delivers excellent cold-start performance, and does not emit white smoke in the winter. Moreover, its combination with the ZF transmission, optimized fuel injection control and improved driving efficiency, further enhances fuel efficiency and performance. In particular, you can experience increased power during operation due to its high torque at low and medium rpm's. A DOC and SCR emission exhaust treatment system has been applied to satisfy Tier 4 EPA requirements (Requires the use of DEF, Diesel Exhaust Fluid).

163.5 HP / 2,300 rpm
540 lb-ft / 1,500 rpm

Gradeability and Travel Speed

These units deliver outstanding operational performance and exceptional gradeability, ensuring stable operation at high speeds, on rough terrains and slopes.



ZF Fully-Automatic Transmission

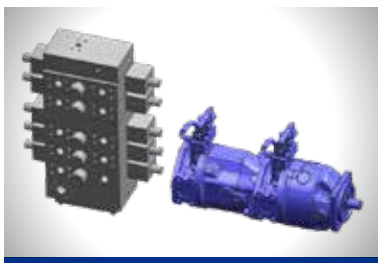
Due to the optimized engine and the performance of the transmission, acceleration performance in low-speed sections has improved, while noise and heat generation have been reduced. Meanwhile, monitoring the realtime status of the transmission has never been easier, thanks to the integration of the TCU and Multifunction Cluster.

High Capacity Drive Axle

Kesseler's high capacity drive axle, with planetary gear reduction hubs, provides outstanding power transsmission and exceptional adaptability to sudden changes in torque. While, the oil cooled. wet-type multi-plate service brakes deliver long life and consistent braking power.

Hydraulic Steering Axle

The hydraulic steering system provides smooth and flexible steering, while preventing over-run and kick-back. Taper roller bearings and stout ADI knuckles, with excellent wear resistance, are used to accomodate heavy load operations. The newly added shock overload relief valve protects the integrity of the steer axle components.



Load Sensing Hydraulic System

The Bosch swash plate piston pump and control valve equipped hydraulic system reduces energy consumption and drive line loads further reducing wear and tear on the powertrain.

Increased Mast Tilting Angle (OPT)

Tilt speed is improved via the combination of a primary and secondary hydraulic pump. The tilting angle of 12 degrees forward and 10 degrees backward increases versatility and work efficiency.

3-Stage T/S Mast for High Lifting (OPT)

These models are offered with 7 different 3-stage masts with lifting heights of 15 to 23 ft, suitable for working conditions where the lowered mast height can be restricted by overhead obstructions. The free lift cylinder can be removed for even better visibility.

Adjustable Idle Speed Control

Using the idle increment switch located on the control panel, the operator has the ability to raise or lower the engine idle speed to accommodate operational needs and preferances. The engine idle speed resets to its originally programmed parameters once the engine is shut down and restarted.

Engine Mode Control

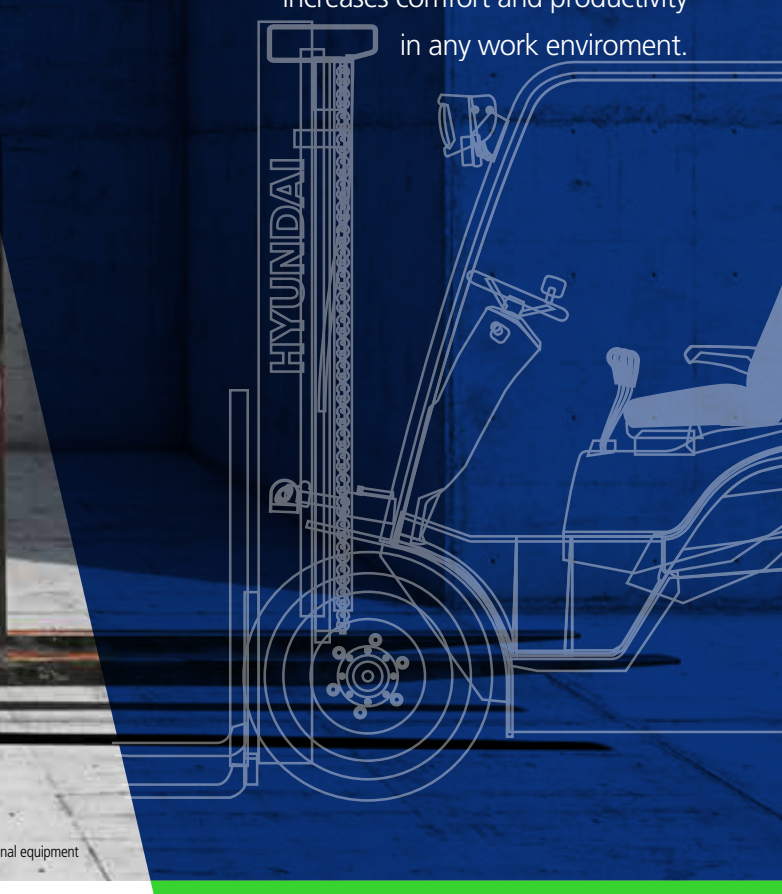
Engine performance can be adjusted to suit the workload and enviroment with the flick of a switch located on the operator control panel.

STD mode : Light load operations (fuel saving mode)
PWR mode : Heavy load operations or while traversing steep grades

Ease & Comfort

Comfortable Workspace, Intuitive Monitoring

The ergonomically designed operator workspace increases comfort and productivity in any work enviroment.



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Ergonomic Operating Space

The roomy, ergonomic cabin was designed to increase productivity, visibility, and operator comfort. The smooth lever and pedal operation, telescopic tilting steering column, suspension seat, and deluxe cabin provide comfortable and efficient operation.

Some of the photos may include optional equipment

Full air suspension seat (OPT)

Ergonomically designed to support a comfortable posture, the full suspension seat decreases fatigue and enables greater comfort for operation.

Information Rich Cluster

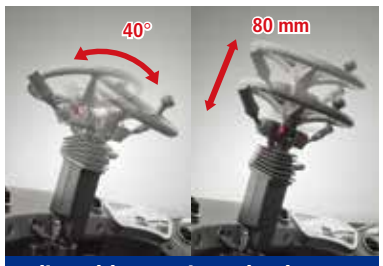
The TFT LCD color monitor provides vital, real-time equipment status and information. With easy visibility to steer angle, ground inclination, and the ability to quickly change performance modes, the cluster helps to increase safety and productivity. Its ability to monitor and record equipment fault codes reduces downtime.

Main Functions

- DEF level gauge
- T/M information display
- Parking brake indicator
- Battery charging failure warning
- Brake system overheat warning
- Air cleaner filter warning
- Machine inclination warning
- Load weight indicator
- Steer tire angle monitor
- Engine coolant temperature warning
- Engine check warning lamp
- Seatbelt warning
- Service interval indicator
- Mast tilt angle indicator
- High beam indicator
- T/M error warning
- OPSS indicator
- Inching indicator

Ergonomic pedals

The high-quality floormat and ergonomically designed pedal arrangement reduce operator fatigue and drastically improve productivity.



Adjustable steering wheel

The tilting and telescoping steering wheel is fully adjustable, providing the operator with a more comfortable and efficient work environment.

Responsive levers

Responsive levers with the latest pilot hydraulic system enables precise control and excellent performance.
(4-Lever : STD), (3/5 Lever : OPT)

Fully automatic air-conditioner (OPT)

The air-conditioner automatically adjusts the cabin to the set temperature and provides a more comfortable working environment for the operator.

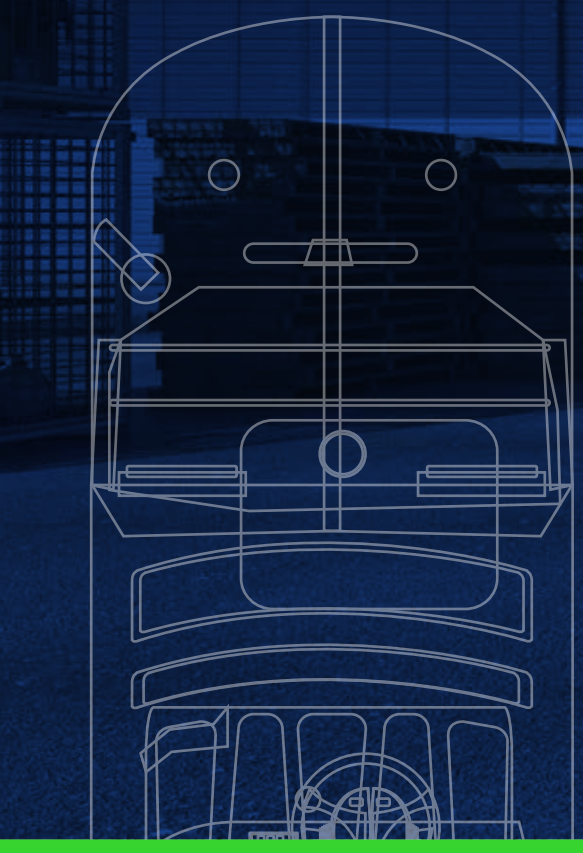
Integrated communications controller

Cutting-edge communications technology enhances the operator's convenience (Bluetooth hands-free, cellphone and radio communication, USB/MP3 audio control functions).

Safe & Secure

Excellent Visibility & Advanced Safety

The cabin and mast are designed with visibility and safety in mind.



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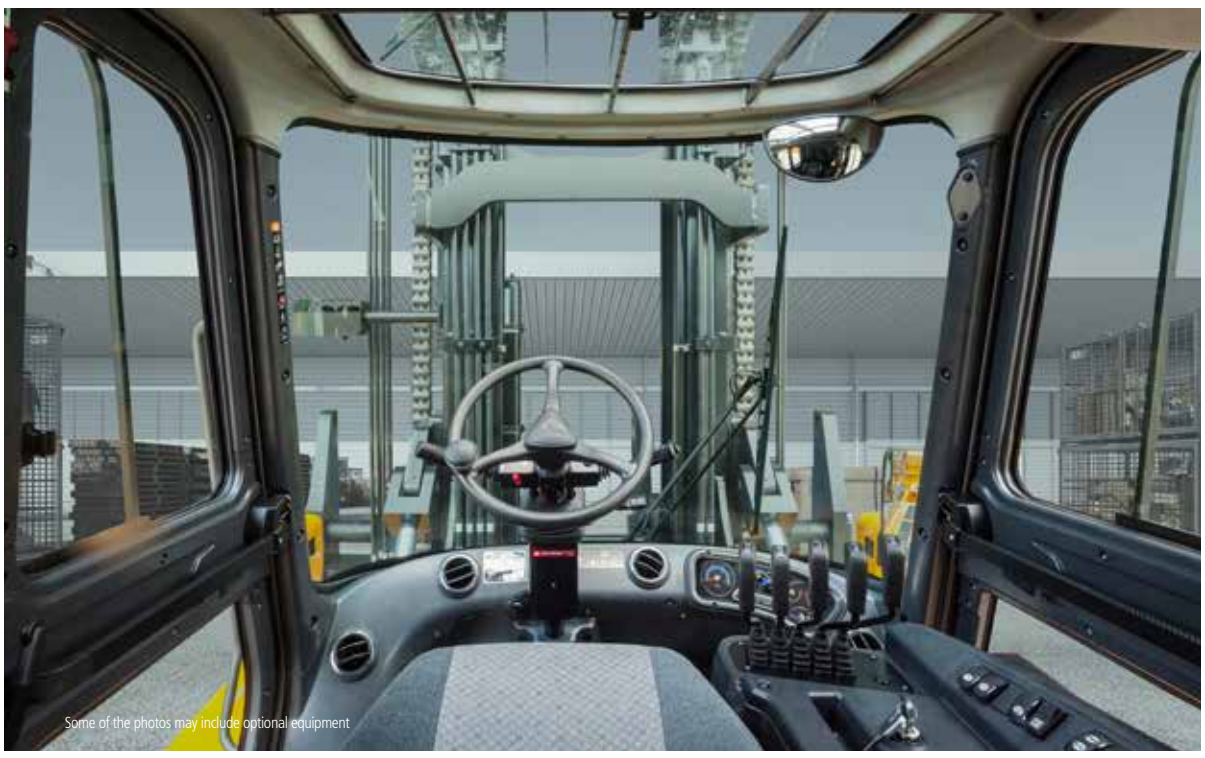
Excellent visibility for safe operation

Optimized lift cylinder arrangement provides the operator with a wider field of view. A panoramic mirror expands the driver's rear view, while an optional rearview camera provides another level of safety at the worksite.



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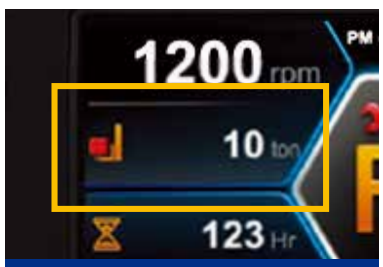
Machine Inclination Warning System

The status of both grade and slope sensors are indicated on the cluster, allowing the operator to monitor the surface condition in real time. Should the safe operational limits of the forklift be exceeded, a visible warning and audible alarm are actuated to alert the operator



Load Weight Indicator (OPT)

When lifting a load, a change in hydraulic pressure of the lift line is converted to a measurement of weight displayed in real time, and a warning is given in the event of an overload.

Steer Tire Angle Indicator (OPT)

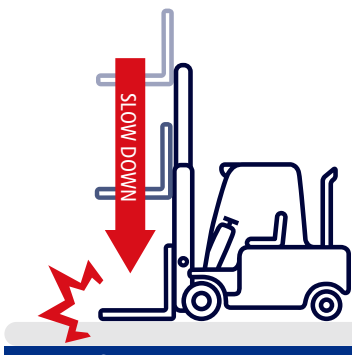
The steering angle sensor, which is installed on the kingpin of the steer axle, reads the steer tire angle. This information is displayed on the large cluster screen as an image, allowing the operator to predict the direction of the vehicle without difficulty.

Safety features

The adoption of highly-sensitive sensors and an advanced safety system reduce the risk of accidents.

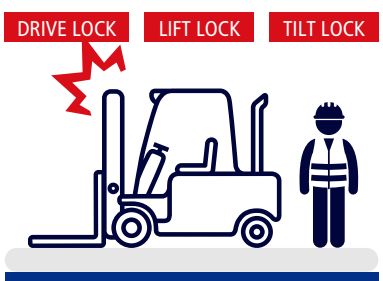
Auto parking brake

In the event that the operator leaves the seat while the gear selector is in neutral, the parking brake is automatically engaged to ensure safety, and is released once the operator returns to the seat.



Fork Safety Features

A down-control valve maintains a controlled descent speed, while the down-safety valve prevents the load from falling in the case of sudden damage to a hydraulic line.



Operator presence sensing system

The Operator Presence Sensing System (OPSS) renders all mast and drive functions inoperable when the operator isn't in the seat.

Speed limit setting

Max travel speed limits are adjustable from 6 mph to 19 mph to increase safety based on operation enviroment.

Password starting system

Use of the password function on the cluster prevents unauthorized personnel from starting and operating the forklift, reducing the risk of accidents, damage, and theft of the forklift. (Capable of storing up to ten passwords)

Increased night work efficiency

Four work lamps are mounted high on the mast, two headlamps on the fender, and two work lamps above the rear cabin window enable efficient nighttime and indoor operations.

Some of the photos may include optional equipment

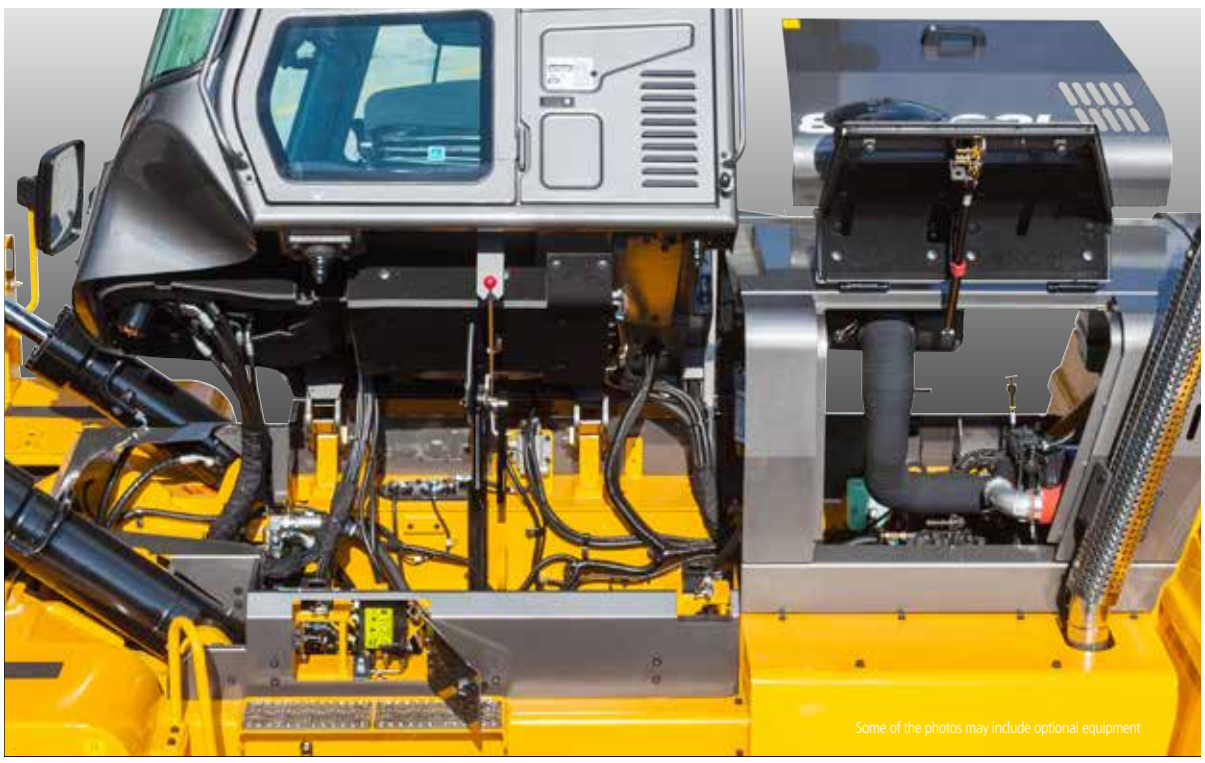
Maintenance & Convenience

Ease of Maintenance & Convenience Features

An ideal arrangement of components ensures easy access and convenience for maintenance.

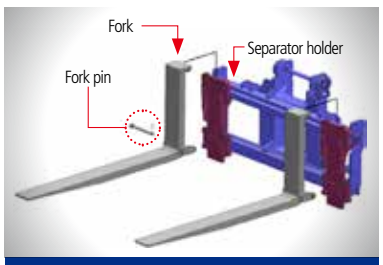
Fully opening tilting cabin and hood

The tilting cabin features a separate electric motor and hydraulic pump that make accessing key components and servicing the forklift faster and easier. By opening the cabin, which can be tilted to a maximum of 54 degrees, and the engine hood, which can be opened on the left and right, all functional components installed inside the chassis can easily be examined and serviced.


Some of the photos may include optional equipment

Up-to-date cooling system

Variable speed and remote controlled fans reduce required engine power and noise, while the aluminum cooler improves durability and heat output.



Separator holder carriage (OPT)

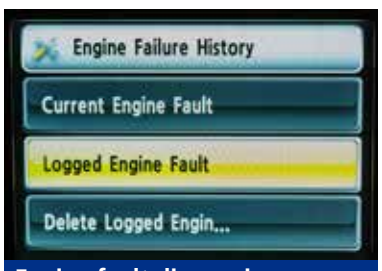
To improve handling and easily switch forks and other attachments, a separator holder system is available as an option. It allows a wide range of attachments to be switched quickly and easily.

Rearview camera (OPT)

A rearview camera and monitor are linked to the reverse gear, ensuring a safer rear work environment.

Battery master switch

Damage is prevented during inspection/ maintenance of electronic units, and battery discharge.



Engine fault diagnosis

Details of engine fault diagnosed by the engine control unit (ECU) can be checked on the cluster.

Maintenance management

The replacement cycle of consumable items can be checked on the monitor, thus preventing the failure of functional parts and preventing possible damage to the forklift.

Automatic tilting system

The cabin tilting system allows the operator to tilt the cabin with a single switch up to 54 degrees, thus enabling easy maintenance of functional devices located under the driver seat.

Cabin air cleaner filter

The air cleaner filter blocks external dust and noise from the cabin, and continuously supplies clean air inside the cabin to maintain fresh air in the driving space.

Convenient air cleaner

Air cleaner filter with large capacity enables longer filter lifespan. The operator can access the air filter easily by simply opening the engine hood.

Mast Specifications

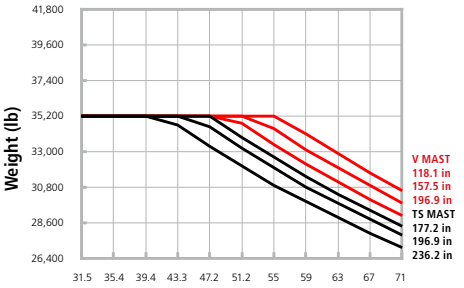
Mast type		Maximum fork height	Overall mast height (lowered)	Free Lift	Tilting Angle	Load capacity		Truck weight (unloaded)
					Fwd / Bwd	180D-9B	160D-9L	
						35°	47°	
		in	in	in	deg	lbs	lbs	lbs
2-stage standard mast	*V300	119	126	0	10 / 10	36,000	36,000	52,699
	V330	130.1	132	0	10 / 10	36,000	36,000	52,927.6
	V350	138.6	135.8	0	10 / 10	36,000	36,000	53,083.8
	V400	158.3	145.7	0	10 / 10	36,000	36,000	53,561
	V450	178	155.5	0	10 / 10	36,000	36,000	54,073.8
	V500	197.6	165.3	0	10 / 10	36,000	36,000	54,485.2
	V550	217.3	175	0	10 / 10	36,000	36,000	55,046.2
	V600	237	185	0	10 / 10	39,380	34,760	55,455.4
	V650	256.7	195	0	10 / 10	38,720	34,210	55,862.4
	V700	276.4	204.7	0	10 / 10	38,170	33,770	56,271.6
3-stage standard mast	TS460	182.4	116	60.5	10 / 10	36,000	35,200	55,097
	TS508	200	122	66.5	10 / 10	38,940	34,320	55,528
	TS538	212	126	70.4	10 / 10	38,500	33,880	55,779
	TS568	223.8	130	74.3	10 / 10	38,060	33,550	56,029.6
	TS600	238	134.6	79	10 / 10	37,510	33,220	56,271.6
	TS658	259.2	141.7	86	10 / 10	36,850	32,670	56,674.2
	TS700	277	147.6	92	10 / 10	36,190	32,120	57,215.4

※ : Standard

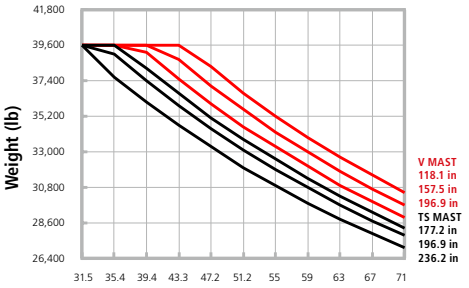
Specifications

			160D-9L	180D-9B
Identification	Manufacturer's type designation			
	Load capacity	lb	36,000	36,000
	Load center	in	47	35
	Maximum lift height ①	in	119	119
	Lift speed, loaded / unloaded	fpm	65 / 88.5	57 / 88.5
	Lowering speed, loaded / unloaded	fpm	430 / 390	430 / 390
	Fork dimension, l x w x h mm	in	96.5 x 4 x 9.8	96.5 x 4 x 9.8
	Fork carriage width ⑭	in	100	100
	Tilting Angle (forward ② / backward ③)	deg	10 / 10	10 / 10
	Extended height ④ / Lowered height ⑤	in	183.7 / 126	183.7 / 126
	Travel speed, unloaded	mpr	21.7	21.7
	Max. Gradeability, loaded	%(°)	33 (18.3)	30.4 (17)
	Min. Turning Radius ⑥	in	209	209
	Max. Drawbar pull, loaded	lbf	31,215	31,215
Basic Dimensions	Service weight	lb	52,810	52,810
	Length to face of forks ⑦ / Overall width ⑧	in	219 / 100	219 / 100
	Height of overhead guard (cabin) ⑨	in	3,075	121
	Ground clearance ⑩ / Wheel base ⑪	in	9.65 / 147.6	9.65 / 147.6
	Tread (front ⑫ / rear ⑬)	in	73.2 / 80.1	73.2 / 80.1
	Tires (front / rear)	-	12.00-20-20PR	12.00-20-20PR
Engine	Manufacturer / Model	-	Cummins / QSB6.7	Cummins / QSB6.7
	Engine power acc. to ISO 1585	hp / rpm	163.6 / 2300	163.6 / 2300
	Max. Torque	lbf-ft / rpm	540.3 / 1500	540.3 / 1500
	Displacement	cc	6,690	6,690

Load Capacity



160D-9L Load Center (in)

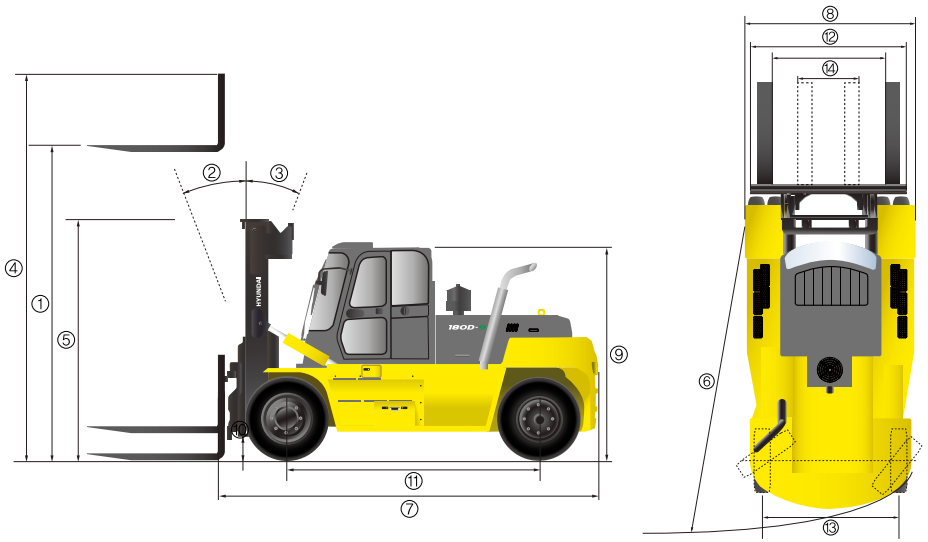


180D-9B Load Center (in)

Optional Items

- Fork (L) (in) : 71, 79, 96.5, 124
- Mast : Simplex Mast / Triplex Mast
- MCV : 3-Spool / 4-Spool / 5-Spool
- Fingertip Controls
- Sliding Carriage
- Separator Holder Type Fork Carriage
- Air Compressor
- Seat : Heat, Leather
- Bluetooth Hands Free
- Air Conditioner & Heater
- Load Weight Indicator
- Rear Wheel Angle Monitoring
- Bias / Radial Tire
- Beacon Lamp (LED)
- Rearview Camera
- RMS
- Top Wiper
- Cabin

Dimensions



* All specifications in this catalog are subject to change according to the optional items.

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6100 Atlantic Blvd.
Norcross, GA 30071
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