

Hyundai 9 Series diesel forklift

50·70D-9



Some of the photos may include optional equipment.

Your satisfaction is our priority!

Proven performance! The best design! Hyundai 9 Series Diesel Mid-size Forklift

Hyundai introduces a new line of 9 series diesel forklift.

The newly designed models provide every operator comfortable driving, increased productivity and easy maintenance.

Performance

- Tier 4, 75kW Cummins QSF3.8 engine
- Fully automatic ZF electronic transmission with 3 forward-reverse shifts
- Wet disc brake and large DIC axle of planetary gear final reduction

Ensured safety at the logistics site

- Auto parking brake
- Operator presence sensing system (OPSS)

Comfortable and safe driving

- FATC (Full Automatic Temperature Control) (OPT)
- Hydraulic pilot valve lever
- Load weight indicator (OPT)

Convenient management

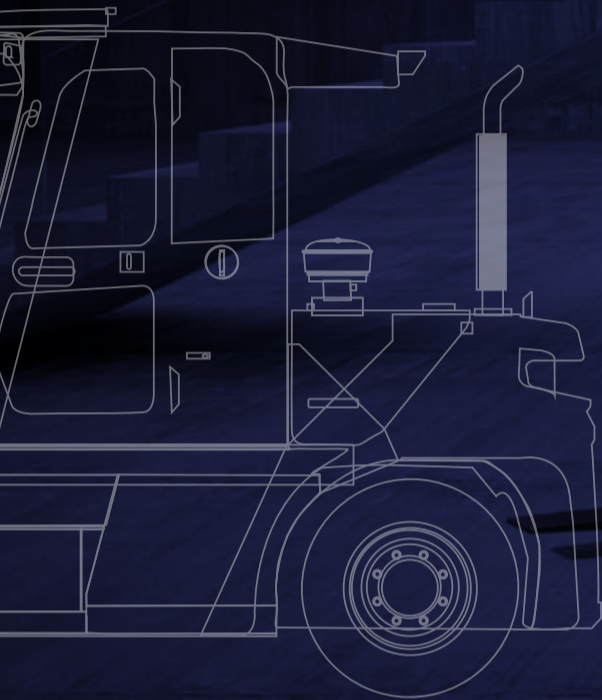
- One-touch electric motor-driven tilting cabin
- Notification of replacement of the consumable items
- Engine fault diagnosis



Power & Performance

High Efficiency, Optimal Performance

Powerful engine and high technology systems provide you with enhanced performance and highest productivity.



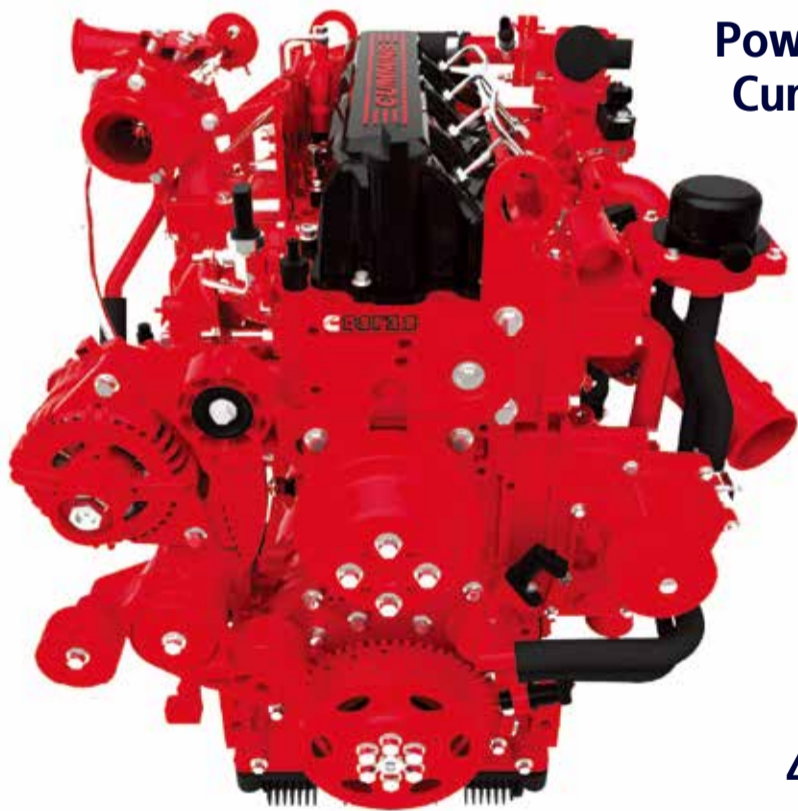
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Powerful and economical Cummins QSF3.8 engine!

The four cylinders turbo-charged engine is built for power, reliability and economy. This engine meets EPA Tier 4 and EU stage IV emission regulation. Also, fuel consumption rate is improved than previous model.

- SCR (Selective Catalytic Reduction)
- EGR (Exhaust Gas Recirculation)
 - High torque at low speeds
 - Excellent transient behavior

75kW/2,200rpm
42.3kgf · m/1,600rpm



ZF Full-automatic transmission

Due to optimized engine and performance of the transmission, acceleration performance in low-speed sections has improved and noise heat generation has reduced. Also, it is possible to check the transmission status / failure etc. on the display window of the cluster.



Highly durable drive axle

The strengthened drive axle separable from transmission ensures low vibration and easy maintenance. The wet disc type brake is applied for easy operation, smooth response and maintenance free.



Fully hydraulic power steering

The hydraulic steering system guarantees smooth and flexible steering, preventing over-run and kick-back.



Mast Tilting Angle

The mast tilting angle of 15 degrees forward and 10 degrees backward, the operator can perform loading and unloading safely and rapidly.

Low engine RPM conversion

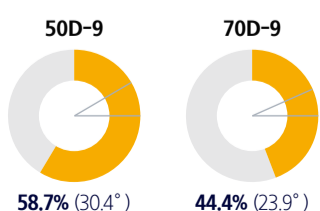
Depending on the need, the driver can convert the engine to a low RPM. The RPM will return to its initial settings value once engine is stopped and restarted.

Engine mode control

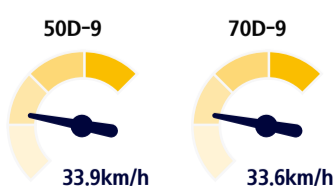
Engine performance can be adjusted to suit the workload, simply by operating a switch mounted on the side panel.
STD mode : Light load operations (fuel saving mode)
PWR mode : Operations on slope requiring intense power

Excellent gradeability and travel speed

The powerful engine provides greater acceleration, better gradability and faster travel speed on any tough terrains or slopes.



Max. Gradeability (Loaded)

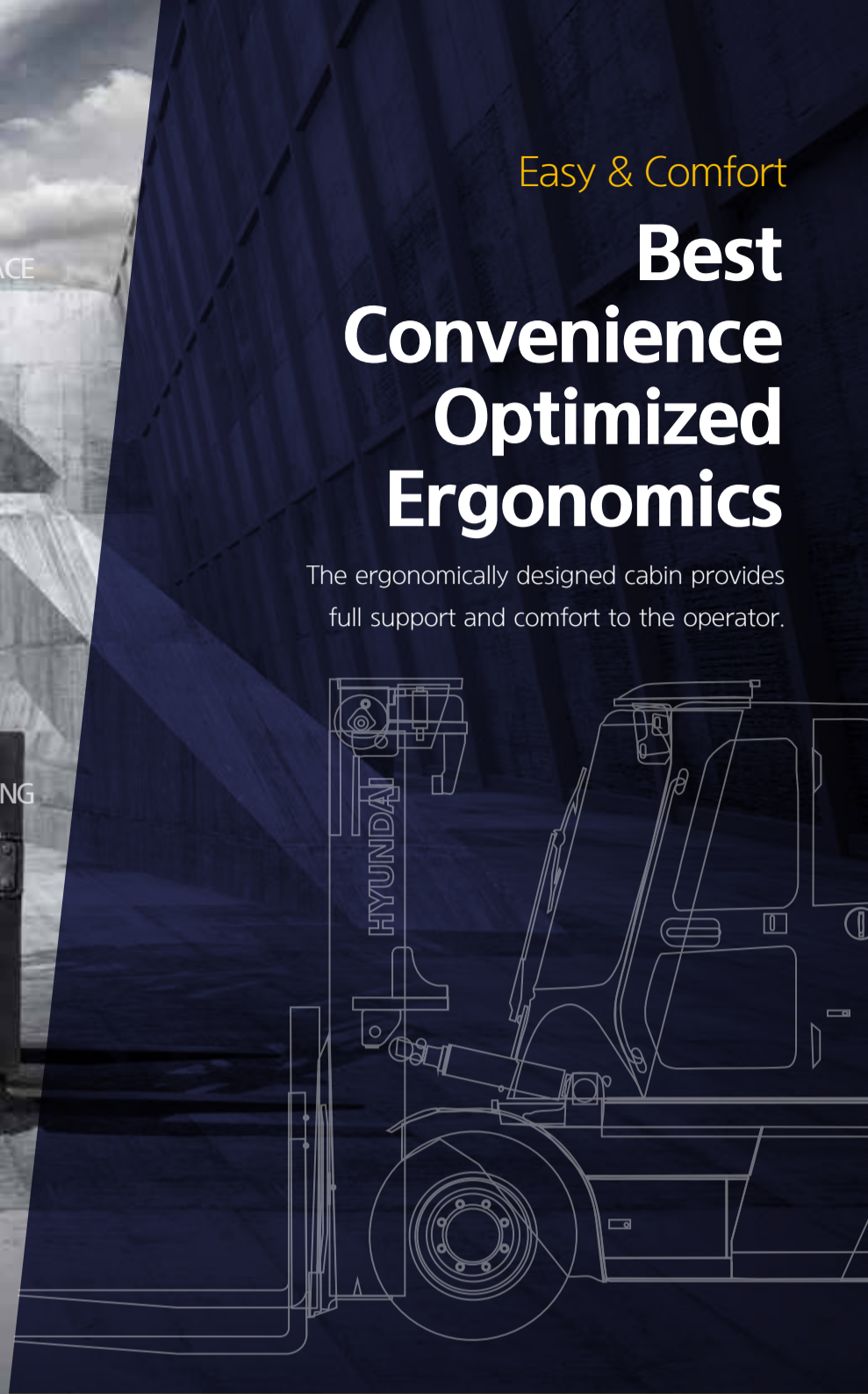


Max. Travel Speed (Unloaded)

Easy & Comfort

Best Convenience Optimized Ergonomics

The ergonomically designed cabin provides full support and comfort to the operator.



Some of the photos may include optional equipment.

Spacious operating space

The ergonomically designed operating space was made for more space, a wider field of view and operator comfort. The smooth lever and pedal operation, adjustable tilting handle, suspension seat and deluxe cabin provide comfortable and efficient operation.



Some of the photos may include optional equipment.



Grammer Seat

Easily adjustable suspension seat, based on a human engineering design, reduces operator fatigue and provides greater comfort.

- Operator's weight range (45~170kg)
- ELR(Emergency Locking Retractor) type seat belt as a standard
- Heat wire and head rest (OPT)



New concept of centralized cluster

- Odometer
- Engine RPM
- Mast tilting status display
- Fuel gauge
- High beam indicator lamp
- Transmission oil temperature gauge
- Fuel heater operation lamp
- Air cleaner filter warning light
- Hour meter
- Diesel exhaust fluid shortage warning light
- T/M information display
- Parking brake operation display lamp
- Battery charging warning light
- Consumable replacement display lamp
- Engine warm-up display lamp
- Weight indicator (OPT)
- Real-time equipment tilt display
- Engine coolant temperature gauge
- Engine check warning light
- Seat belt warning lamp
- OPSS lamp
- Inching display lamp



High-Output Air Conditioner & Heater

Full Automatic Temperature Control automatically adjusts cabin temperature to the set temperature and provides more comfortable working environment for the operator.



Centralized Instrument Switch Panel

Various switches can be concentrated on the right side of the driver's seat to quickly optimize the vehicle condition to suit the working environment.



Quick Response of Operating Control Levers

Only minimal operator's effort is required for precise, safe and productive control.



Accelerator and inching pedals

Based on human engineering the accelerator, brake and inching pedals are optimally positioned for the operator's convenience.



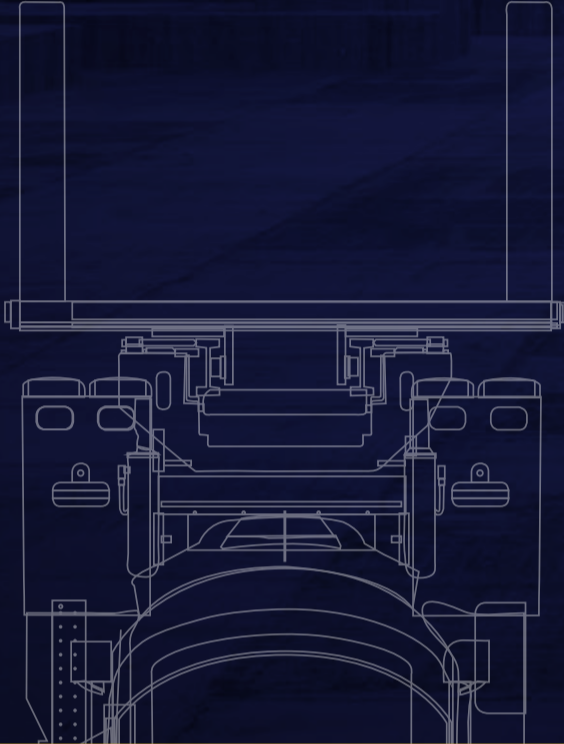
Adjustable Steering Wheel

Steering wheel can be adjusted forward, backward, up and down for the most comfortable operator position.

Secure & Safety

Advanced Safety

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



Some of the photos may include optional equipment.

Wide visibility for Safe Operation

The optimized lift cylinder array design provides a clear, wide field of vision for the operator. The adoption of a panorama mirror and rear camera(OPT) improve the rear side view, further enhancing safety.



Some of the photos may include optional equipment.



Rear view camera (OPT)

The rear view camera and monitor connected with the reverse gear guarantee a safe working environment.



Large Footboard & Hand Grip

Wide openstep offers convenience and safety when entering and exiting vehicle.

Speed limit setting

As the vehicle's speed limit can be set in consideration of the operator's environment, accidents resulting from violations of the speed limit can be prevented.

Password setting function

The equipment can be managed safely and protected from theft by setting the password. (Up to 10 passwords can be set.)

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 at the time of overload.

Rear tire cover (STD) / Under cover (OPT)

The rear tire cover protect the the engine room by preventing foreign materials forme entering the tire. The Under cover protect the engine and components from dusts caused by ground.



Machine inclination warning system

The grade (left) and slope (right) sensors are built into the MCU and provide the grade and slope status information of the vehicle connected with the road surface condition in real time. Also, an alarm is emitted when the KS regulation is exceeded.

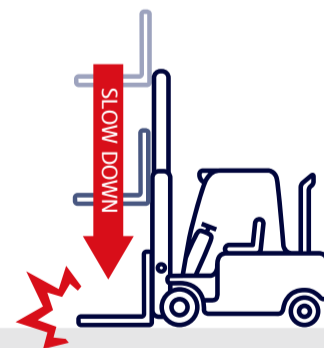
Safety features

The adoption of a high-sensitivity sensor and advanced safety system eliminates the risk of safety accidents.



Auto parking brake

If the operator leaves the seat while the gear lever is in neutral, the parking brake is automatically engaged to secure safety, and released upon the operator's return to the seat.



Fork Safety Features

The down-safety valve prevents forks from dropping down in case of sudden damage of hydraulic line.

DRIVE LOCK LIFT LOCK TILT LOCK



Operator Presence Sensing System

All mast and drive movements stop functioning when the operator is not in the seat.



High brightness headlamp / LED taillight

Adoption of a high brightness headlamp and a semi-permanent LED taillight improves work efficiency and safety.



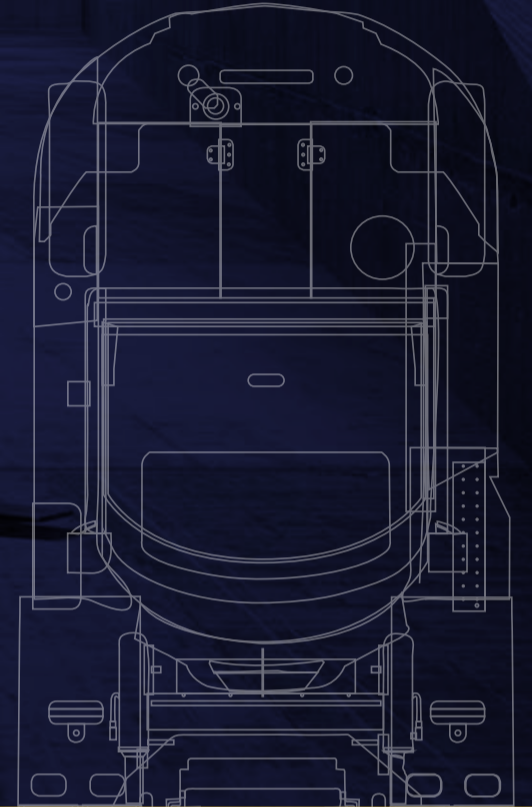
Vibration absorbing bellows

The durability of the muffler and the exhaust pipe is improved by installing the vibration absorbing bellows in a part of the exhaust pipe connecting the engine exhaust manifold and the muffler.

Maintenance & Convenience

Fast and Easy Maintenance & Convenience Features

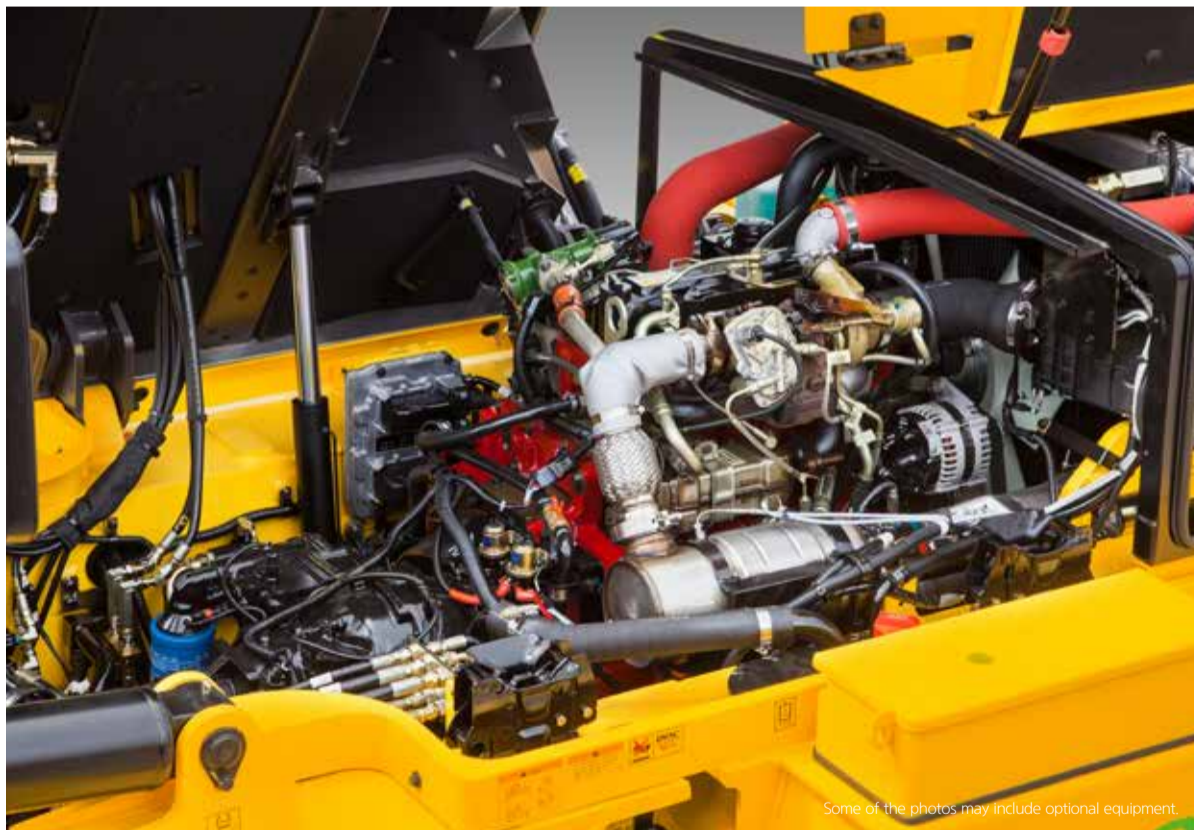
An ideal arrangement of components ensures easy access and convenience for maintenance.



Some of the photos may include optional equipment.

Fully opening engine hood

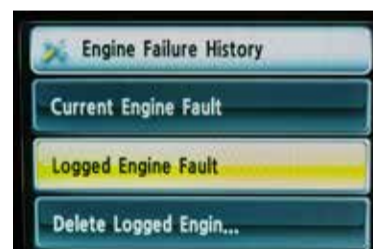
An ideal arrangement of components ensures easy access and convenience for maintenance. Also, the adoption of a large-capacity double air cleaner filter ensures longer filter replacement cycle.



Some of the photos may include optional equipment.

Various convenience devices

Various functions provide safety and convenience for operator.



Engine fault diagnosis

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



Maintenance management

Replacement cycle of consumable items can be checked on the monitor, thus preventing performance deterioration of major functional parts due to failure to notice deterioration.



Fuse box and relay box

The cabin is fitted with a newly developed fuel box and a relay box with waterproof and dustproof cover for ease of maintenance.



Easy battery check

Battery is installed under the left-side step of the forklift to ensure convenient and easy checking.



Cabin tilting switch

The cabin can be tilted up to 48 degrees with a single switch, making it easy to service the functions located under the driver's seat.



Fuel inlet lockable with key (OPT)

A locking device is installed at the fuel inlet to prevent equipment malfunction due to fuel stolen and foreign materials.



Easy-to-access washer tank

Level of washer fluid can be checked simply by opening the wing cover.



Easy-to-access inlet of diesel exhaust fluid

Diesel exhaust fluid inlet can be easily accessed for convenient injection.



Improved serviceability

Adoption of one-touch latch makes it easier to service the engine, components and electric parts.

New 9 Series Mast Specification

50/70D-9

50D-9 (STD : Hook-On Type Fork & Carriage)

Mast Type	Maximum Forkheight		Overall Height							Free Lift				Tilt Angle		Load capacity w/o side shift At 24 in (600mm)LC		Load Capacity w/ Side Shift At 24 in (600mm)LC		Truck Weight Unloaded	
			Lowered		Extended				Without Load Backrest		With Std Load Backrest		Fwd deg	Bwd deg							
	in	mm	in	mm	W/o Load Backrest		W/Std Load Backrest		in	mm	in	mm			deg	deg	lb	kg	lb	kg	lb
2-Stage Limited free lift	※V300	119	3,030	99	2,515	157	3,991	170	4,320	6	140	6	140	15	10	11,000	5,000	11,000	5,000	19,654	8,913
	V330	131	3,330	105	2,665	169	4,291	182	4,620	6	140	6	140	15	10	11,000	5,000	11,000	5,000	19,760	8,961
	V350	139	3,530	109	2,765	177	4,491	190	4,820	6	140	6	140	15	10	11,000	5,000	11,000	5,000	19,828	8,992
	V370	147	3,730	113	2,865	185	4,691	198	5,020	6	140	6	140	15	10	11,000	5,000	11,000	5,000	19,899	9,024
	V400	159	4,030	119	3,015	196	4,991	209	5,320	6	140	6	140	15	10	11,000	5,000	11,000	5,000	20,022	9,080
	V450	178	4,530	131	3,315	216	5,491	229	5,820	6	140	6	140	15	10	11,000	5,000	11,000	5,000	20,525	9,308
	V500	198	5,030	140	3,565	236	5,991	249	6,320	6	140	6	140	15	10	11,000	5,000	11,000	5,000	20,701	9,388
	V550	218	5,530	150	3,815	256	6,491	269	6,820	6	140	6	140	15	10	11,000	5,000	11,000	5,000	20,875	9,467
3-Stage full free lift	TF/TS450	180	4,560	101	2,565	218	5,545	229	5,805	62	1,580	50	1,275	15	10	11,000	5,000	11,000	5,000	21,006	9,526
	TS500	199	5,060	109	2,765	238	6,045	248	6,305	70	1,780	58	1,475	15	10	11,000	5,000	11,000	5,000	21,208	9,618
	TS560	220	5,600	117	2,965	259	6,585	269	6,845	78	1,980	66	1,675	15	10	11,000	5,000	10,805	4,900	21,453	9,729
	TS600	239	6,060	125	3,165	277	7,045	288	7,305	86	2,180	74	1,875	15	10	10,805	4,900	10,584	4,800	21,647	9,817
	TS730	289	7,330	144	3,665	327	8,315	338	8,575	106	2,680	94	2,375	15	6	9,658	4,380	9,261	4,200	22,159	10,049

※ : Standard

50D-9 (OPT : Shaft Type Fork & Carriage)

Mast Type	Maximum Forkheight		Overall Height							Free Lift				Tilt Angle		Load capacity w/o side shift At 24 in (600mm)LC		Load Capacity w/ Side Shift At 24 in (600mm)LC		Truck Weight Unloaded	
			Lowered		Extended				Without Load Backrest		With Std Load Backrest		Fwd deg	Bwd deg							
	in	mm	in	mm	W/o Load Backrest		W/Std Load Backrest		in	mm	in	mm			deg	deg	lb	kg	lb	kg	lb
2-Stage Limited free lift	※V300	119	3,030	99	2,515	-	-	168	4,275	-	-	6	140	15	10	11,000	5,000	-	-	19,603	8,890
	V330	131	3,330	105	2,665	-	-	180	4,575	-	-	6	140	15	10	11,000	5,000	-	-	19,709	8,938
	V350	139	3,530	109	2,765	-	-	188	4,775	-	-	6	140	15	10	11,000	5,000	-	-	19,777	8,969
	V370	147	3,730	113	2,865	-	-	196	4,975	-	-	6	140	15	10	11,000	5,000	-	-	19,848	9,001
	V400	159	4,030	119	3,015	-	-	208	5,275	-	-	6	140	15	10	11,000	5,000	-	-	19,971	9,057
	V450	178	4,530	131	3,315	-	-	227	5,775	-	-	6	140	15	10	11,000	5,000	-	-	20,474	9,285
	V500	198	5,030	140	3,565	-	-	247	6,275	-	-	6	140	15	10	11,000	5,000	-	-	20,650	9,365
	V550	218	5,530	150	3,815	-	-	267	6,775	-	-	6	140	15	10	11,000	5,000	-	-	20,825	9,444
3-Stage full free lift	TF/TS450	180	4,560	101	2,565	-	-	229	5,805	-	-	52	1,320	15	10	11,000	5,000	-	-	20,853	9,457
	TS500	199	5,060	109	2,765	-	-	248	6,305	-	-	60	1,520	15	10	11,000	5,000	-	-	21,056	9,549
	TS560	220	5,600	117	2,965	-	-	269	6,845	-	-	68	1,720	15	10	11,000	5,000	-	-	21,301	9,660
	TS600	239	6,060	125	3,165	-	-	288	7,305	-	-	76	1,920	15	10	10,805	4,900	-	-	21,495	9,748
	TS730	289	7,330	144	3,665	-	-	338	8,575	-	-	97	2,460	15	6	9,658	4,380	-	-	22,007	9,980

※ : Standard

New 9 Series Mast Specifications

70D-9 (STD : Hook-On Type Fork & Carriage)

Mast Type	Maximum Forkheight		Overall Height							Free Lift				Tilt Angle		Load capacity w/o side shift At 24 in (600mm)LC		Load Capacity w/ Side Shift At 24 in (600mm)LC		Truck Weight Unloaded	
			Lowered		Extended				Without Load Backrest		With Std Load Backrest		Fwd deg	Bwd deg							
	in	mm	in	mm	W/o Load Backrest		W/Std Load Backrest		in	mm	in	mm			deg	deg	lb	kg	lb	kg	lb
2-Stage Limited free lift	※V300	119	3,030	99	2,515	166	4,211	170	4,320	6	140	6	140	15	10	15,500	7,000	15,500	7,000	22,902	10,386
	V330	131	3,330	105	2,665	178	4,511	182	4,620	6	140	6	140	15	10	15,500	7,000	15,500	7,000	23,008	10,434
	V350	139	3,530	109	2,765	185	4,711	190	4,820	6	140	6	140	15	10	15,500	7,000	15,500	7,000	23,078	10,466
	V370	147	3,730	113	2,865	193	4,911	198	5,020	6	140	6	140	15	10	15,500	7,000	15,500	7,000	23,149	10,498
	V400	159	4,030	119	3,015	205	5,211	209	5,320	6	140	6	140	15	10	15,500	7,000	15,500	7,000	23,272	10,554
	V450	178	4,530	131	3,315	225	5,711	229	5,820	6	140	6	140	15	10	15,500	7,000	15,500	7,000	23,773	10,781
	V500	198	5,030	140	3,565	245	6,211	249	6,320	6	140	6	140	15	10	15,500	7,000	15,500	7,000	23,949	10,861
	V550	218	5,530	150	3,815	264	6,711	269	6,820	6	140	6	140	15	10	15,500	7,000	14,800	6,730	24,123	10,940
3-Stage full free lift	TF/TS450	180	4,560	101	2,565	227	5,765	229	5,805	54	1,360	50	1,275	15	10	15,500	7,000	15,500	7,000	24,368	11,051
	TS500	199	5,060	109	2,765	247	6,265	248	6,305	61	1,560	58	1,475	15	10	15,500	7,000	15,500	7,000	24,571	11,143
	TTS560	220	5,600	117	2,965	268	6,805	269	6,845	69	1,760	66	1,675	15	10	15,500	7,000	15,215	6,900	24,816	11,254
	TS600	239	6,060	125	3,165	286	7,265	288	7,305	77	1,960	74	1,875	15	10	14,700	6,700	13,728	6,240	25,010	11,342
	TS730	289	7,330	144	3,665	336	8,535	338	8,575	97	2,460	94	2,375	15	6	14,300	6,500	13,266	6,030	25,583	11,602

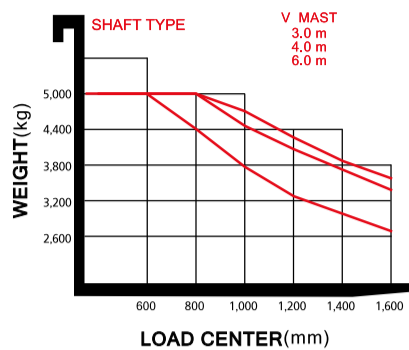
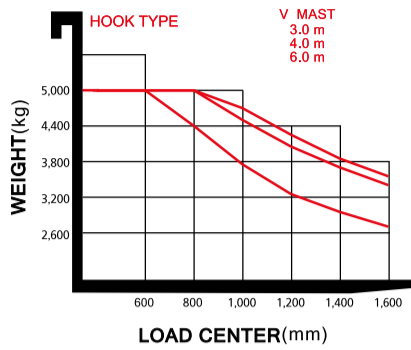
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70D-9 (OPT : Shaft Type Fork & Carriage)

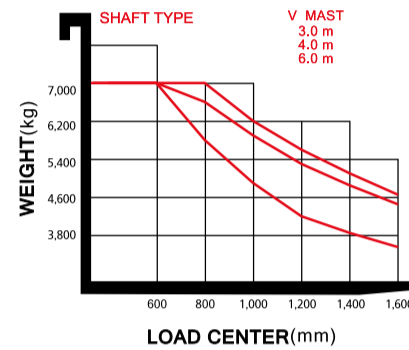
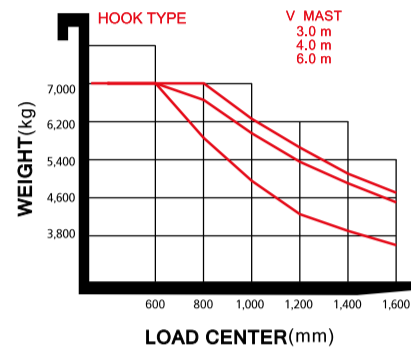
Mast Type	Maximum Forkheight		Overall Height							Free Lift				Tilt Angle		Load capacity w/o side shift At 24 in (600mm)LC		Load Capacity w/ Side Shift At 24 in (600mm)LC		Truck Weight Unloaded	
			Lowered		Extended				Without Load Backrest		With Std Load Backrest		Fwd deg	Bwd deg							
	in	mm	in	mm	W/o Load Backrest		W/Std Load Backrest		in	mm	in	mm			deg	deg	lb	kg	lb	kg	lb
2-Stage Limited free lift	※V300	119	3,030	99	2,515	-	-	168	4,275	-	-	6	140	15	10	15,500	7,000	-	-	23,096	10,474
	V330	131	3,330	105	2,665	-	-	180	4,575	-	-	6	140	15	10	15,500	7,000	-	-	23,200	10,521
	V350	139	3,530	109	2,765	-	-	188	4,775	-	-	6	140	15	10	15,500	7,000	-	-	23,268	10,552
	V370	147	3,730	113	2,865	-	-	196	4,975	-	-	6	140	15	10	15,500	7,000	-	-	23,338	10,584
	V400	159	4,030	119	3,015	-	-	208	5,275	-	-	6	140	15	10	15,500	7,000	-	-	23,462	10,640
	V450	178	4,530	131	3,315	-	-	227	5,775	-	-	6	140	15	10	15,500	7,000	-	-	23,965	10,868
	V500	198	5,030	140	3,565	-	-	247	6,275	-	-	6	140	15	10	15,500	7,000	-	-	24,141	10,948
	V550	218	5,530	150	3,815	-	-	267	6,775	-	-	6	140	15	10	15,500	7,000	-	-	24,315	11,027
3-Stage full free lift	TF/TS450	180	4,560	101	2,565	-	-	229	5,805	-	-	52	1,320	15	10	15,500	7,000	-	-	24,395	11,063
	TS500	199	5,060	109	2,765	-	-	248	6,305	-	-	60	1,520	15	10	15,500	7,000	-	-	24,598	11,155
	TS560	220	5,600	117																	

Load Capacity

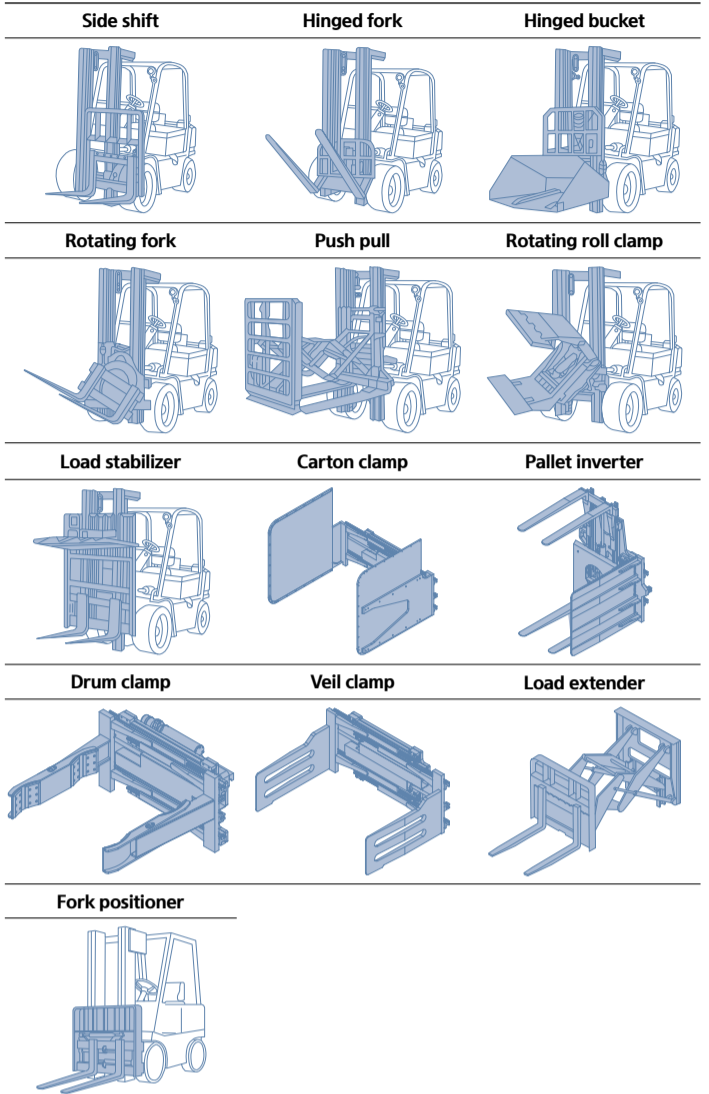
50D-9



70D-9



Attachments



* All specifications and photos in this catalog are subject to change for quality improvement.

Optional Items

- Fork (mm)
50/70D-9 : 1200(STD), 1350, 1500, 1800, 2000, 2300, 2400
- Integral Sideshift, Integral Fork Positioner, Sideshift
- Tire : Solid(superelastic) / Non-marking
- M.C.V : 3-Spool, 5-Spool
- Seat : Armrest, Heat, Backrest Ext, Buckle SW
- Weight Indicator
- Rear View Camera
- Cabin (Heater & Air Conditioner)
- Battery Disconnect Switch (Master Switch)
- Beacon Lamp (LED) (Amber)
- Rear Work Lamp
- Top Wiper

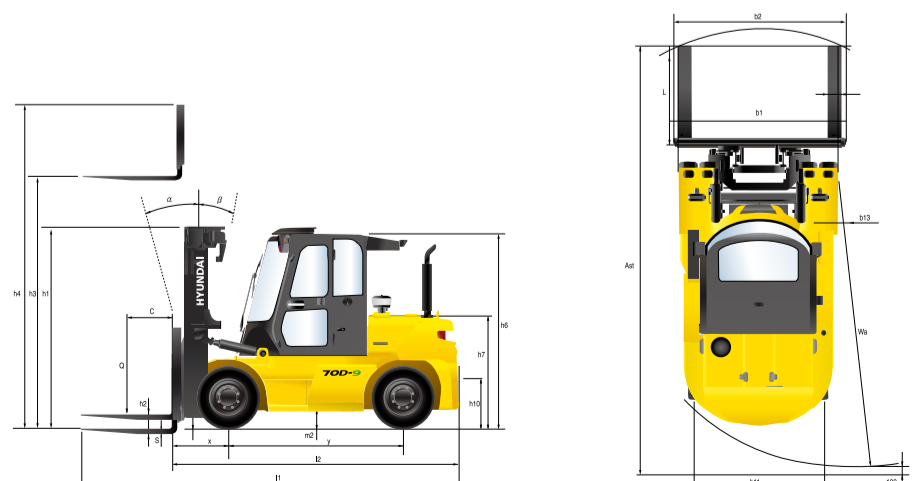
New 9 Series

Specification

Distinguishing mark			
1.1	Manufacturer	Hyundai	Hyundai
1.2	Manufacturer's model designation	50D-9	70D-9
1.3	Drive: electric (battery or mains),diesel,petrol,fuel gas>manual	Diesel	Diesel
1.4	Type of operation:hand,pedestrian,standing,seated,order-picker	seated	seated
1.5	Load capacity / Rated load	kg 5,000	7,000
1.6	Load center distance	c mm 600	600
1.8	Load distance, center of drive axle to fork	x mm 610	610
1.9	Wheelbase	y mm 2,300	2,300
Weight			
2.1	Service weight	kg 8,890	10,474
2.2	Axle loading, loaded front / rear	kg 12,186 / 1,704	15,224 / 2,250
2.3	Axle loading, unloaded front / rear	kg 4,543 / 4,347	4,425 / 5,949
Wheels, Chassis			
3.1	Tires : Pneumatic(P), Solid(S), Non-marking(N)	P	P
3.2	Tires size, front	8.25-15-14PR	8.25-15-14PR
3.3	Tires size, rear	8.25-15-14PR	8.25-15-14PR
3.4	Number of wheels front / rear (x=driven wheels)	4 x / 2	4 x / 2
3.5	Track width, front	mm 1,580	1,580
3.6	Track width, rear	mm 1,604	1,604
Basic Dimensions			
4.1	Mast / fork carriage tilt forward / backward (α/β)	deg 15 / 10	15 / 10
4.2	Lowered mast height	h1 (mm) 2,515	2,515
4.3	Free lift	h2 (mm) 140	140
4.4	Lift height	h3 (mm) 3,030	3,030
4.5	Extended mast height	h4 (mm) 4,320	4,320
4.7	Overhead guard height (cabin)	h6 (mm) 2,704	2,704
4.8	Seat height / standing height rel. to SIP	h7 (mm) 1,536	1,536
4.12	Coupling height	h10 (mm) 519	508
4.19	Overall length	l1 (mm) 4,746	4,866
4.20	Length to face of forks	l2 (mm) 3,546	3,666
4.21	Overall width	b1 (mm) 2,090	2,090
4.22	Fork dimensions (hook type)	s / e / l1 (mm) 60 x 150 x 1,200	65 x 150 x 1,200
4.23	Fork carriage ISO 2328, class / type A,B	Class IV	Class IV
4.24	Fork-carriage width	b3 (mm) 2,068	2,068
4.31	Ground clearance, loaded, under mast	m1 (mm) 195	195
4.32	Ground clearance, centre of wheelbase	m2 (mm) 228	224
4.33	Aisle width for pallets 1,000x1,200 crossways (LxW)	Ast (mm) 5,129	5,251
4.34	Aisle width for pallets 800x1,200 lengthways (WxL)	Ast (mm) 5,329	5,451
4.35	Turning radius	Wa (mm) 3,314	3,436
4.36	Smallest pivot point distance	b13 (mm) 1,224	1,224

Performance data			
5.1	Travel speed, unloaded	km/h 33.9	33.6
5.2	Lift speed, loaded/ unloaded	mm/s 440 / 460	420 / 460
5.3	Lowering speed, loaded/unloaded	mm/s 500 / 450	500 / 450
5.6	Max. Drawbar pull, loaded	N 74,470	75,185
5.7	Gradient performance, loaded	% 58.7	44.4
5.9	Acceleration time, loaded/ unloaded (10m)	sec -	-
5.10	Service brake	FOOT (Hydraulic)	FOOT (Hydraulic)
Engine			
7.1	Engine manufacturer / type	CUMMINS / QSF3.8	CUMMINS / QSF3.8
7.2	Engine power acc. to ISO 1585	kW(ps)/rpm 75(102) / 2,200	75(102) / 2,200
7.3	Maximum Torque	kgf.m/rpm 42.3 / 1,600	42.3 / 1,600
7.4	No. of cylinder / Displacement	EA/cc 4 / 3,726	4 / 3,726
7.5	Fuel consumption acc. To VDI cycle	l / h 8.2	8.2
Other Details			
8.1	Type of drive control	Full Auto	Full Auto
8.2	Operating pressure, system / attach	bar 185 / 150	185 / 150
8.3	Oil volume (hydraulic)	l / min 76	76
8.4	Sound pressure level (at driver's ear according to DIN 12053)	dB(A) 79.8	79.8
8.5	Trailer coupling, type DIN	Pin	Pin

Dimension



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



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