

70D-9V								
Mast Type	Maximum fork height	Overall height (Lowered)	Free lift height	Tilt angle		Load capacity (600mm LC)	Truck weight (Unloaded)	
				Fwd	Bwd			
				mm	mm			mm
2 Stage Limited Free Lift	*V300	3,030	2,515	140	15	10	7,000	10,193
	V330	3,330	2,665	140	15	10	7,000	10,241
	V350	3,530	2,765	140	15	10	7,000	10,272
	V370	3,730	2,865	140	15	10	7,000	10,304
	V400	4,030	3,015	140	15	10	7,000	10,360
	V450	4,530	3,315	140	15	10	7,000	10,588
	V500	5,030	3,565	140	15	10	7,000	10,668
	V550	5,530	3,815	140	15	10	7,000	10,747
3 Stage Full Free Lift	V600	6,030	4,065	140	15	10	6,900	10,826
	TF/TS450	4,560	2,565	1,320	15	10	7,000	10,783
	TS500	5,060	2,765	1,520	15	10	7,000	10,875
	TS560	5,600	2,965	1,720	15	10	6,850	10,986
	TS600	6,060	3,165	1,920	15	10	6,500	11,074
	TS730	7,330	3,570	2,460	15	6	5,550	11,514

80D-9V								
Mast Type	Maximum fork height	Overall height (Lowered)	Free lift height	Tilt angle		Load capacity (600mm LC)	Truck weight (Unloaded)	
				Fwd	Bwd			
				mm	mm			mm
2 Stage Limited Free Lift	*V300	3,040	2,675	150	15	10	8,000	11,541
	V330	3,340	2,825	150	15	10	8,000	11,590
	V350	3,540	2,925	150	15	10	8,000	11,623
	V370	3,740	3,025	150	15	10	8,000	11,655
	V400	4,040	3,175	150	15	10	8,000	11,704
	V450	4,540	3,475	150	15	10	8,000	11,919
	V500	5,040	3,725	150	15	10	8,000	12,001
	V550	5,540	3,975	150	15	10	8,000	12,082
3 Stage Full Free Lift	V600	6,040	4,225	150	15	10	7,650	12,164
	TF/TS450	4,570	2,750	1,440	15	10	8,000	12,189
	TS500	5,070	2,950	1,640	15	10	8,000	12,292
	TS550	5,570	3,150	1,840	15	10	7,700	12,394
	TS600	6,070	3,350	2,040	15	10	7,100	12,523
	TS765	7,650	3,970	2,660	15	6	5,900	12,836

70/80D-9V

Internal Combustion Diesel Engine Forklift Truck



70/80D-9V series that satisfies both eco-friendliness and cost-effectiveness!

70/80D-9V is an innovative product that satisfies EU Stage 5 Regulations and boasts of optimum fuel efficiency, compact frames, and excellent work performance. It satisfies both eco-friendliness and low TCO (Total Cost of Ownership).

PRODUCT FEATURES OVERVIEW

UP VALUE

As times change, the standard for high performance should also change

■ Optimized hydraulic system and new engine performance

70D-9V

12%

Higher fuel-efficiency than Tier 4 Final
80D-9V_18%

■ Low - noise engine and optimized cabin structure

70D-9V

5.7dB

Lower noise level inside than Tier 4 Final
80D-9V_5.1dB

ECONOMICAL PERFORMANCE

Environment-Friendly

- Satisfies EU stage 5 regulations on gas and achieves both eco-friendliness and operating expenses reduction with improved fuel efficiency
 - HDI DN34 engines

Innovative cost-effectiveness and reliable durability

- Significant Reduction in Total Cost of Ownership(TCO)
 - The combination of a load-sensing hydraulic system and a 3.4-liter industrial engine improves fuel efficiency by 12-18%.
- The more travel-intensive the worksite, the greater the fuel savings.
- Newly applied ZF(3WG94) T/M equipped with the upgraded TCU
 - Improved responsiveness and optimized shift timing
 - Applied a non-contact shift lever that is strong against moisture.
- Selection of engine working mode according to working conditions - "PWR/STD mode"
- Wide work sight of the 3 stage - TS mast **Option**



Differentiated safety specifications

- Auto-parking brake
 - Automatically started when the engine is stopped or OPSS is running
- OPSS - Restricted driving, lift and tilt operation
- Seat belt interlock **Option**
 - The forklift cannot be operated when the seat belt is not worn
- Road slope warning
 - Alarm warning when the road slope exceeds the standard
- Password-start limit
 - Prevents theft by prohibiting forklift operation by an unauthorized operator
- Travel speed limit
 - Prohibiting driving beyond the speed limit at the place of work

Prominent driving comfort specifications

- Applied the new cabin with improved work convenience and serviceability
 - Eliminated visual distortion at the edge of the windshield
 - Increased the side view by applying glass-type side doors
 - Improved accessibility by repositioning the console switches and light buttons
- Full Hydraulic Brake & Electronic type inching system
- Air suspension / swivel seat **Option**
- Improved the access convenience of the RCV lever-placement at 5-degree inclination
- Applied a new color monitor that increased the visibility of key information

Easy and convenient follow-up management

- Auto-tilting cabin that opens up to 52 degrees
 - Restricting cabin tilting when opening the passenger door to prevent cabin damage accidents
- Service Screen Cover for Exhaust Aftertreatment Device
 - Allows for DPF cleaning at 3,000-hour intervals without the need to remove the counterweight

70/80D-9V

Eco-friendly Hyundai(HDI) D4N03 Engine

The HDI D4N03 engine is designed for heavy machinery, meeting Stage 5 emissions regulations, with a focus on high energy efficiency and long durability. Its high torque in the low-to-mid speed range improves work efficiency and creates a quieter operating environment



Model	70/80D-9V
Rated Power(Ps/rpm)	111.5/2,200
Max. torque(kg-m/rpm)	42.3/1,600
Aftertreatment	DOC+SCR+DPF

Innovative reduction of operating expenses

Fuel efficiency is dramatically improved compared with tier 4 final by using an optimized engine and applying a load sensing system.

70D-9V

12% ↑

Higher fuel-efficiency than Tier 4 Final
80D-9V_18%

* Fuel economy is based on our internal tests (VDI 2198) and may be different from actual operation.

Upgraded ZF transmission (3WG94)

Responsiveness and shift timing are optimized, and SIL 2 European safety function regulation is satisfied. In addition, the shifting system boasts of increased reliability as a non-contact shifting lever that is not affected by moisture is applied.



ENVIRONMENT FRIENDLY
GREAT PRODUCTIVITY, DURABILITY

PERFORMANCE ^{UP}

An eco-friendly engine ensures both cost-effectiveness and work efficiency!

Check out the flawless performance of 70/80D-9V only.

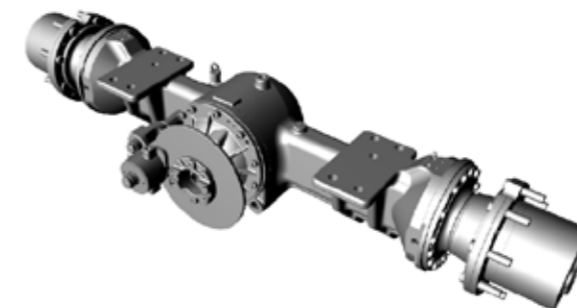
Engine output selection button

- ① PWR/STD button - STD mode is set to 80% output of PWR mode and can be selected according to the work conditions.
- ② Idle RPM Up/Down button - When slowly lifting cargo without stepping on the accelerator pedal, the engine output can be supplemented. (Adjustable by increments of 25 RPM)



HDX's Drive axle

The HDX drive axle has improved the rigidity of the differential and final reduction gears, and increased the braking power of the auto parking brake compared to previous models. Additionally, to enhance reliability, the axle mounting method has been changed to a vertical type.



Wide work sight of the 3-stage mast—TS mast **Option**

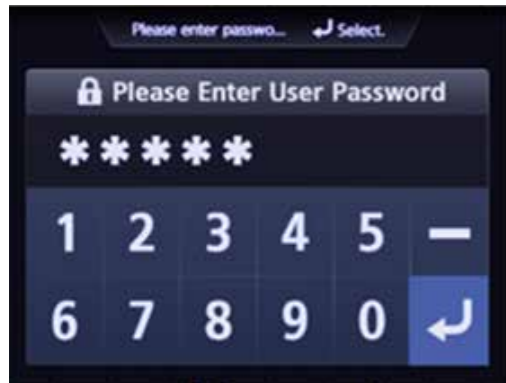
Usually, the 3-stage mast causes some inconvenience in securing a clear front view due to the primary cylinder in the center. The 3-stage TS mast provides wider work sight by placing the primary cylinder on the left and right sides.



70/80D-9V

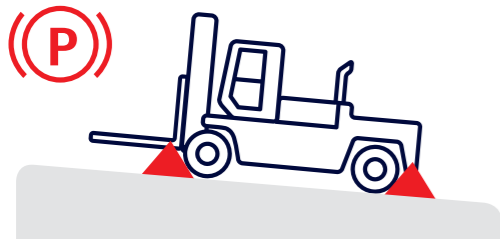
Password – Start limit

A password can be set to prevent unauthorized driving by an outsider and theft of the forklift. If the password is set, the engine cannot be started without the password.



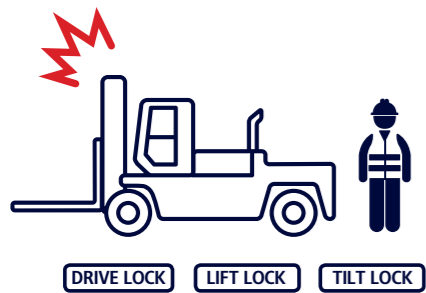
Auto-parking brake

When the engine stops or OPSS starts, the parking brake is automatically activated to prevent human errors. If the driver needs to use the parking brake while the engine is running, driver can apply/release the brake using a dedicated button.



OPSS system

The OPSS restricts driving, lifting, and tilting when the operator leaves the driver's seat in order to prevent accidents.



Additional options for safety

- Auto-tilting – Automatically maintaining the level of the fork and the ground
- Seatbelt interlock – Forcing the wearing of seat belt to prevent secondary accidents



ENHANCED SAFETY

UP SAFETY

Safety at the logistics site is most important, safety is supported by complete reliability

Speed limit

The maximum driving speed can be set to prevent accidents caused by exceeding the speed limit. Even though the maximum driving speed is set, hill-climbing ability and mast working performance are maintained at the highest level.



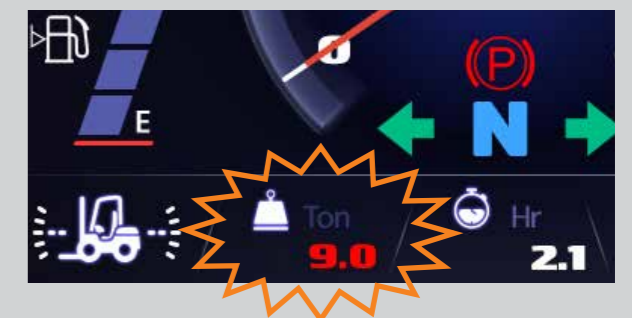
Large side mirror with hot wires Option

A large side mirror is installed on the front wheel fender to secure a wider rear view. In addition, heat wires were inserted into the side mirror to cope with rain or snow.



Displaying the road slope (STD) and overload alarm Option

The road slope is sensed and displayed in real time. When the set value is exceeded, the symbol turns red, and a warning buzzer goes off. In addition, the optional cargo weighing device issues an alarm for safety in case of overload.



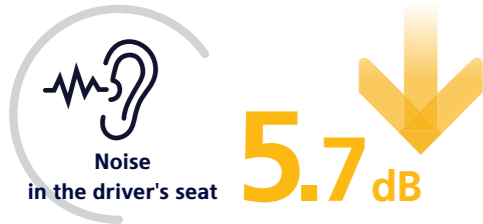
70/80D-9V

Deluxe next-generation cabin

- With driving experience improved through the voices of our customers, the next-generation cabin provides consistent convenience in any condition.

Noise in the driver's seat

The low-noise engine, along with a design that avoids resonance sounds within the cabin, has reduced the operator noise by 5.7 dB (70D-9V) compared to the previous Tier 4 Final model.



Air suspension / swivel seat Option

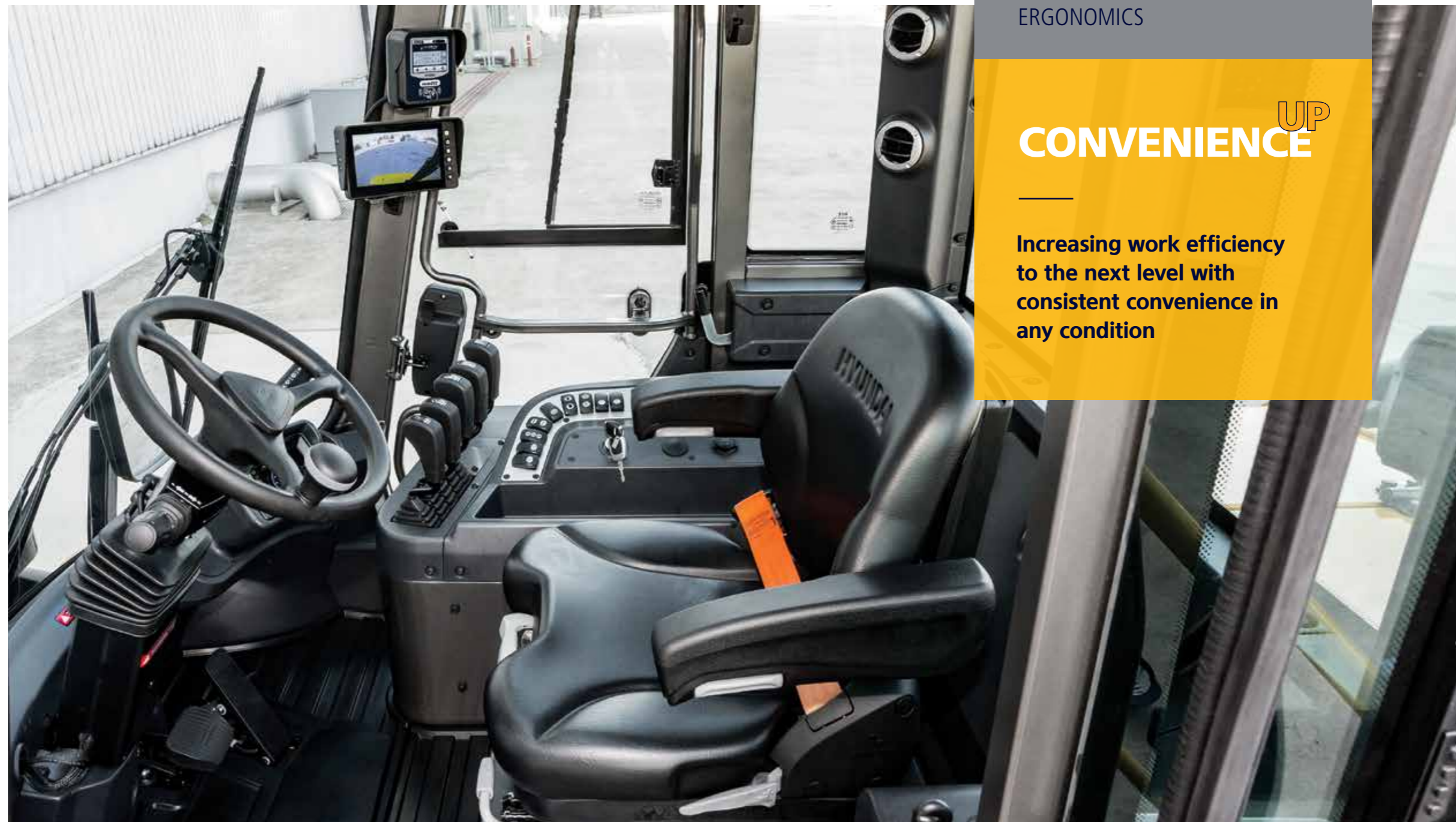
"Air suspension" that provides optimal riding comfort and the "swivel seat" which will improve reverse driving and convenience of getting on/off as the seat can be rotated 20 degrees to the right and 10 degrees to the left are provided as an option.

* Basic specification: Full-suspension Grammer seat



Multi-functional digital display

A new cluster is applied for improved visibility of the main information needed for equipment operation. The cluster has integrated MCU for various settings and control for efficient operation and safety of the equipment on the LCD.



OUTSTANDING OPERABILITY
ERGONOMICS

UP
CONVENIENCE

Increasing work efficiency
to the next level with
consistent convenience in
any condition

Easy-to-use steering handle

The problem of heavy handle when handling abruptly is improved, as now the handle can be adjusted up and down by 85mm and front and back by 36 degrees. In addition, the work convenience of the driver is improved with the handle diameter being reduced down to 35mm.



High operability fingertip system Option

The fine controllability of the new fingertip system is improved by changing MCV control to dither control. The system provides fast response within 0.1 seconds as well as the same controllability regardless of ambient temperature.



Inching and brake pedal that are easy to operate and efficiently placed air vent

Fatigue accumulated in the legs is reduced by changing the brake pedal and inching pedal to a hanging type. The air conditioning effect is improved by installing two air vents above the pedal.



70/80D-9V

Wide maintenance space

The cabin can be tilted up to 52 degrees, enabling easy access to the powertrain, hydraulic, and electrical system of the forklift. The cooling system and engine consumables can be easily managed by opening the cover of the wing-type engine room.

Self-diagnosis of engine and consumables management

The failure details and history can be checked on the cluster screen. In addition, when the replacement cycle of any consumables is entered into the cluster, parts in need of replacement are displayed on the monitor.



Item	Interval	Elapse	Count	Alarm
Axle Gear Oil	100	105	0	●
Transmissing Oil	100	105	0	●
Filter	100	105	0	●
Tank Air Breathe...	250	105	0	●
Engine Oil	500	105	0	●
Element	500	105	0	●



EASY SERVICE

MAINTENANCE^{UP}

Easy maintenance and cost-effective after-sales service
Even though the work is finished, the satisfaction continues

No tilting when the door is opened & cabin tilting switch

If the right door is open, damage to the door is prevented by prohibiting cabin tilting. The cabin can be opened and closed both automatically or manually.



Fuse and Relay box

Fuses and relays, which are most frequently checked and replaced among electrical apparatuses, are arranged in a separate airtight space outside of the cabin to guarantee system credibility and save post-management time.



Exhaust Gas Aftertreatment System Maintenance

By removing the cover behind the counterweight, the exhaust gas aftertreatment system can be serviced without removing the heavy counterweight.

* The DPF added for Stage 5 must be removed and cleaned internally every 3,000 hours of 5,000 hours is not required.



Hi-MATE ^{Option}

Forklift operation and status, safety, and human resources can be remotely managed using the on-site management solution Hi-MATE. The accumulated data can be used for devising a forklift operation plan.



Highlights of the next-generation cabin

Front sight

- Applied single curved glass : Removing distortion of vision in corners
- Double-arm large wiper & review monitor
- 7-inch monitor for the rear camera only



Rear sight and air vents

- Applied flat glass without distortion of view
- Applied single-arm wiper as a standard



Optimal air conditioning – multiple air vents

- Rear side : 2 left & light C pillars each
- Dash board : Top and Pedal(Each 2ea)
- Removing windshield moisture(2ea)



Upper window / sun visor

- Applied wiper & Sun visor as a standard
- Ceiling interior materials with high insulation effect



Left and right sight

- Minimizing blind spots in the field of view
 - Whole glass structure that has no filler in the middle of the door & Increased glass area



Hi-MATE, a solution for field control based on data

Data collected at the sensors and modules mounted on equipment during the operation of forklift truck at the operation control system of Hyundai Industrial Vehicle is provided to the mobile device or computer of the customer in real time through the server of Hyundai Construction Equipment. Such visual data can be used for establishing a control plan for safety control in fields, productivity improvement, and cost saving.

Equipment operation management

* Real-time monitoring and follow-up management of individual vehicles, drivers, equipment on-site, and operation information

- Key-on time, travel hours, work hours, and traveling position

Equipment status management

* Supplying information of the forklift truck linked with operation hours, establishing a follow-up management plan

- Indicating fuel remainder, failure information

- Indicating consumable exchange timing, service timing

Safe traveling control

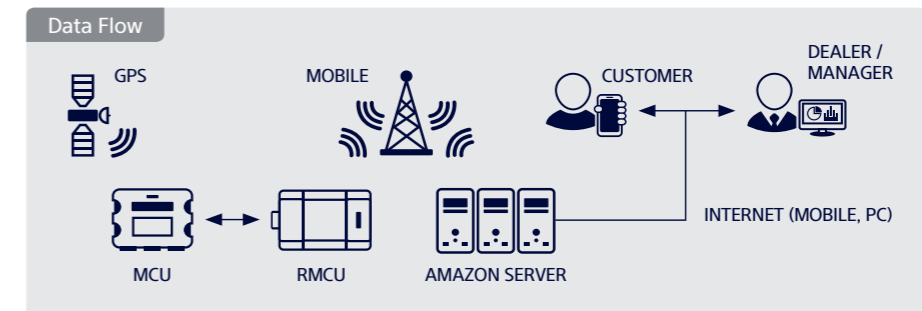
* Checking and follow-up management of safety accident caused by collision between the field system and forklift truck during operation

- Count of collision, size of impact

Human resource management

* Checking and follow-up management such as matching between self-diagnosis and equipment conditions before operation

- Driver authorization, self-diagnosis of equipment conditions



Standard & Option

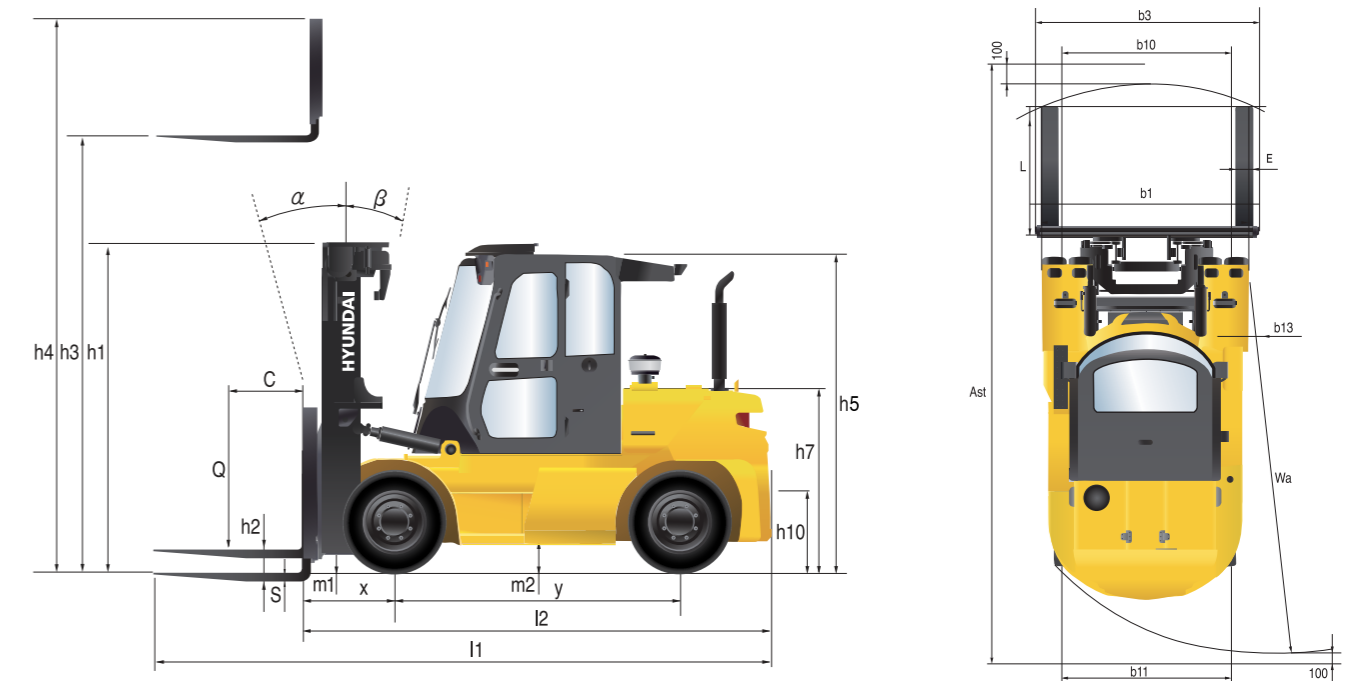
		Description	70D-9V	80D-9V			Description	70D-9V	80D-9V																																																																																
OPERATION ROOM	Cabin	Cabin	●	●	HYDRAULIC	Lever	Manual Lever	●	●																																																																																
		Wiper for Top window	○	○			Finger Tip (4, 5 Spool only)	○	○																																																																																
	A/C	A/C+Heater	●	●		MCV	4 Spool MCV + Attached piping for V mast	●	●																																																																																
		Grammer seat + Seat belt + Arm rest	●	●			MCV Option - 3, 5Spool MCV	○	○																																																																																
	Seat	Seat Accessories - Buckle SW, Backrest&Heater	○	○			Attached piping for All MCV & Masts	○	○																																																																																
		Seat option - Air suspension seat (Armrest+Buckle SW+Heater)	○	○		TIRE	Tires	Pneumatic tires	●	●																																																																															
		Seat option - Swivel seat (Armrest+Buckle SW)	○	○				Solid tires	○	○																																																																															
		Seat option - Fabric seat (Armrest+Buckle SW)	○	○				Non-Marking tires	○	-																																																																															
	Radio & USB	○	○	Front-Pneumatic tires + Rear-Solid tires				○	○																																																																																
	etc.	Bluetooth Radio	●	●		Front-Solid tires + Rear-Pneumatic tires	○	○																																																																																	
Extinguisher		○	○	Heavy Duty Tires (Pneumatic, Solid)	○	-																																																																																			
Mast	Standard Mast (2 Stage)	V400	V400	Heavy Duty Tires (Non-Marking)	○	-																																																																																			
	2 Stage Full Free Lift (V)	○	○	VISIBILITY	Lamp	Working Lamp - Front & Rear LED	●	●																																																																																	
	3 Stage Full Free Lift (TF/TS)	○	○			Mirror	L/H & R/H Back Mirror - Heated	○	○																																																																																
Fork	Standard Fork	2,400mm	2,400mm			Camera	Rear Camera	○	○																																																																																
	Fork option - 1,200mm~2,400mm	○	○	MAST & ATTACHMENT	Tilt		15 (FWD) / 10 (REV)	●	●	CONVENIENCE	-	Load Weight Indicator	●	●	6 (FWD) / 6 (REV), 15 (FWD) / 6 (REV)	○	○	Accumulator	○	○	Carriage	Carriage option - Shaft type	●	●	Air Compressor	○	○	Carriage option - Intergral Shaft type (F/P, S/S, F/P & S/S)	○	○	SAFETY	-	OPSS - Travel & Mast	○	○	Carriage option - Hook type	○	○	Seat Belt Interlock	●	●	Wide type (2,190mm)	●	-	Master Switch (Disconnect Main Power)	○	○	Narrow type (1,990mm)	○	-	Hi-MATE (General, Premium)	○	○	Backrest	Load Backrest	●	●	Hazard Switch	●	○	Integral Side Shift	○	○	LED Beacon Lamp	○	○	Attachment	Fork Positioner - Independent	○	○	OTHERS	-	HYD Oil - VG46	●	●	Side Shift & Positioner - Independent, Synchronized	●	●	HYD Oil Option - VG 68 for Tropical, VG15 for Cold Area	○	○								Frame - Under Cover
MAST & ATTACHMENT	Tilt	15 (FWD) / 10 (REV)	●			●	CONVENIENCE	-	Load Weight Indicator			●	●																																																																												
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	Carriage	Carriage option - Shaft type	●		●	Air Compressor			○	○																																																																															
		Carriage option - Intergral Shaft type (F/P, S/S, F/P & S/S)	○		○	SAFETY	-	OPSS - Travel & Mast	○	○																																																																															
		Carriage option - Hook type	○		○			Seat Belt Interlock	●	●																																																																															
		Wide type (2,190mm)	●		-			Master Switch (Disconnect Main Power)	○	○																																																																															
	Narrow type (1,990mm)	○	-		Hi-MATE (General, Premium)			○	○																																																																																
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		Integral Side Shift	○		○	LED Beacon Lamp	○	○																																																																																	
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							Frame - Under Cover	○	○																																																																																

● STD / ○ OPT

Specification

Identification				
	Manufacturer		Hyundai	
	Manufacturer's Type Designation		70D-9V	80D-9V
1.1	Drive: Electric (Battery or Mains), Diesel, Petrol, Fuel		DIESEL	DIESEL
1.2	Type Of Operation : Hand, Pedestrian, Standing,		Seated	Seated
1.3	Load Capacity / Rated Load	kg	7,000	8,000
1.4	Load center distance	c mm	600	600
1.5	Load distance, center of front axle to fork	x mm	610	690
1.6	Wheelbase	y mm	2,300	2,500
Weights				
2.1	Service Weight	kg	10,118	11,553
2.2	Axle Loading, Loaded Front / Rear	kg	15,091 / 2,026	17,231 / 2,322
2.3	Axle Loading, Unloaded Front / Rear	kg	4,393 / 5,724	5,103 / 6,450
Wheels, Chassis				
3.1	Tires: Solid Rubber(V), Superelastic(SE), Pneumatic(P), Polyurethane(PE)		P	P
3.2	Tires Size, Front		8.25-15-14PR	9.00-20-14PR
3.3	Tires Size, Rear		8.25-15-14PR	9.00-20-14PR
3.5	Wheels, Number Front Rear (x=Driven Wheels)		4x2	4x2
3.6	Track Width, Front	mm	1,578	1,632
3.7	Track Width, Rear	mm	1,602	1,700
Basic Dimensions				
4.1	Mast/Fork Carriage Tilt Forward / Backward	degrees	15/10	15/10
4.2	Lowered Mast Height	h1 (mm)	2,515	2,675
4.3	Free Lift	h2 (mm)	140	145
4.4	Lift Height	h3 (mm)	3,030	3,040
4.5	Extended Mast Height	h4 (mm)	4,275	4,375
4.7	Overhead Load Guard (Cab) Height	h5 (mm)	2,595	2,680
4.8	Seat Height / Standing Height (SIP)	h7 (mm)	1,536	1,650
4.12	Coupling Height	h10 (mm)	508	602
4.19	Overall Length	l1 (mm)	4,875	5,170
4.20	Length to Face of Forks	l2 (mm)	3,675	3,970
4.21	Overall Width	b1 (mm)	2,088	2,194
4.22	Fork Dimensions (H x W x L)	l x e x s (mm)	60x180x1,200	70x180x1,200
4.23	Fork Carriage ISO 2328, Class / Type A,B		CLASS IV	Class IV
4.24	Fork-Carriage Width (with backrest)	b3 (mm)	2,207	2,277
4.31	Ground Clearance, Under Mast	m1 (mm)	195	250
4.32	Ground Clearance, Centre of Wheelbase	m2 (mm)	224	306
4.34.1	Aisle Width for Pallets 1000x1200 Crossways	Ast (mm)	5,251	5,590
4.34.2	Aisle Width for Pallets 800x1200 Lengthways	Ast (mm)	5,451	5,790
4.35	Turning Radius	Wa (mm)	3,436	3,700
Performance				
5.1	Travel Speed, Loaded / Unloaded	km/h	30.4 / 34.0	30.5 / 35.1
5.2	Lift Speed, Loaded / Unloaded	mm/s	450/480	440/500
5.3	Lowering Speed, Loaded /Unloaded	mm/s	500/500	500 / 500
5.6	Max. Drawbar Pull, Loaded / Unloaded	Kgf	7,839/	7,556/
5.8	Max. Gradient Performance, Loaded	%	43.1	36.6
5.10	Service Brake		Hydraulic	Hydraulic
Engine				
7.1	Engine Manufacturer / Type		HDI DN03	HDI DN03
7.2	Engine Power Acc. to ISO 1585	ps/rpm	111.5/2,200	111.5/2,200
7.3	Maximum Torque	kgf.m/rpm	42.3/1,600	42.3/1,600
7.4	No. of Cylinders / Displacement	EA/cc	4/3,409	4/3,409
Addition Data				
8.1	Type of drive control	AC	Full Auto	Full Auto
8.2	Operating pressure, system / attachments	bar	210/140	210/140
8.3	Oil volume for attachments	LPM	110	110

Dimension



Load Capacity

