



STAGE

70/80D-9V
Diesel forklifts



ECONOMIC ENGINE
(Fuel efficiency:
+18% for 70D-9V /
+23% for 80D-9V)



**INCREASED
LIFTING SPEED**
(+8% for 80D-9V)



**LOAD
SENSING
PISTON PUMP**



**REDUCED
CABIN NOISE**
(-5.2 dB)



**OUTSTANDING
WARRANTY**

STAGE V AND BEYOND

Hyundai's new 9V Series is part of a fresh generation of forklifts complying with the European Stage V emission levels. But it goes much further than that!

Hyundai's engineers took a creative approach to develop an environmentally friendly machine that also offers reduced TCO (Total Ownership Costs). Savings are boosted with enhanced fuel economy and work efficiency.

The overall result is a **groundbreaking level of customer satisfaction** with **maximum performance** and **productivity**, higher **operator comfort**, better **safety** and **improved uptime management**.



Productivity & Efficiency

DURABLE AND FUEL-EFFICIENT TO REDUCE YOUR OPERATING COSTS

The Hyundai engineers have left no stone unturned in their efforts to save you costs and improve your productivity. The Hyundai legacy of reliable technology continues with an optimised engine and a new load-sensing hydraulic system developed to boost your profits through unprecedented efficiency.

Optimised fuel efficiency

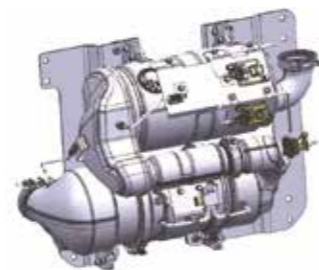


The 70D-9V and 80D-9V are equipped with a powerful 2.9L HMC D4CC diesel engine that produces 55 kW while complying with European Stage V environmental regulations. It also achieves **impressive cost savings** by delivering excellent performance with low fuel consumption rates.



- Featuring the optimal displacement for a forklift, the HMC D4CC engine comprises an electronic EGR valve, a common rail, Variable Geometry turbocharging (VGR) with an excellent boosting effect and an aftertreatment (DOC + DPF + SCR) device.
- The DPF regeneration works automatically.
- A parked regeneration can be activated manually at any time and monitored on the cluster.
- The driver can use a switch to prevent the regeneration process (hot exhaust gases) for working in an area with a potential risk of fire.

(70D-9V) ↑ **18%** (80D-9V) ↑ **23%**
FUEL EFFICIENCY



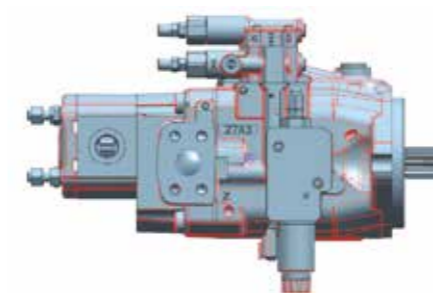
Aftertreatment
DOC + DPF + SCR

Improved visibility for efficient operation

- The view from the driver's seat has been optimised with side mirrors offering a better view of the rear wheel position.
- A triple separate (TS) mast is available as an option for improved visibility in overhead work.
- All masts are designed with 15° forward and 10° backward tilting for easy handling of various load types.
- When the load-sensing system is selected, the load weight is displayed on the cluster screen in real time. In the event of overload, a warning lamp flashes on the screen.

Load-sensing piston pump

The engine is combined with a Casappa variable load-sensing piston pump in conjunction with a new MCV (mechanical or fingertip) from Buchholz. This hydraulic system, based on demand of flow, reduces the power take-off from the engine while driving and therefore the fuel consumption. Due to a higher pump-output, the working speed of all hydraulic functions has been increased. This results in **higher productivity with lower costs**.



Variable piston pump



Load-sensing MCV

New powertrain for enhanced performance and reliability

The ZF 3WG94 transmission is equipped with an upgraded TCU for fast response and optimised shift control. The drive axle is **developed entirely by Hyundai Core Motion** and delivers superior durability and productivity.



- The new powertrain offers enhanced response, optimised transmission timing **and improved transmission system reliability**.
- The system meets EU Safety Regulation SIL 2.
- The system is controlled by a non-contact forward/backward lever designed for resistance to moisture and contaminants.



- The new Hyundai Core Motion drive axle provides **optimal rigidity and strength** for high-load work.
- The drive axle is equipped with a planetary reducing gear offering resistance to torque changes. The differential capacity has been increased for better performance and durability of the wet disc brakes.
- Thanks to its enhanced durability and long service intervals, the wet disc brake also reduces maintenance costs and downtime.
- The axle has a caliper-type auto-parking brake.

Operator Comfort

FIRST-CLASS ERGONOMICS FOR PRODUCTIVITY AND OPERATING PLEASURE

The cabin is designed to provide every operator with a comfortable environment that boosts productivity and reduces fatigue, even in tough working conditions. The most important controls are positioned within easy reach and a range of options helps you to tailor the cabin to your needs.

Improved comfort and convenience

A **premium quality Grammar seat** is installed as standard, ensuring comfortable driving all day. A seat belt switch, armrest and seat heating are available as options. The inching and brake pedals have been moved for a more comfortable foot position, while additional vents under the steering wheel column improve heating in winter. The main console switches and storage have been rearranged for easy access to those used most frequently. The air conditioning controls are conveniently placed on the headliner side.



Outstanding operability

The new load-sensing MCV **improves controllability and working speed**. The RCV circuit open pressure has been lowered for precise fork control performance.

The fingertip controls have been adapted for easier operation and **quick, precise response** (within 0.1 seconds).

Spacious and quiet with an all-round view

The 9V Series features a new deluxe cabin with several improvements to enhance **comfort and peace of mind**. The console layout has been adapted to improve accessibility and create more space for the driver. The front windscreen has a new, one-piece, curved design that creates a **wide, clear view** with reduced edge distortion. The side doors are composed entirely of glass, providing a better view to the sides as well.

Internal noise has been reduced by 5.2 dB, making it easier for the operator to concentrate and reducing fatigue.

Cabin noise
5.2 dB



Colour monitor

A new **colour monitor** with large icons allows the driver to check operating conditions and view any alerts quickly and easily. MCU controls are integrated for efficient operation of all equipment. An independent 7-inch digital rear view camera monitor is installed on the right side offering visibility behind the machine at all times. If a front view camera is added, this screen can be split to display both views.



Reduced steering wheel size

The **steering wheel diameter** has been reduced by 35 mm to **minimise shoulder fatigue**.



Safety

CREATING A SAFER WORKING ENVIRONMENT

Small details can make a huge difference when it comes to safety and security. The optional **seat-belt interlock system** available with the 9V Series is just one example. This new feature protects the driver by blocking all machine functions until the seat-belt has been fastened. Our ultimate aim is to help you to create a safe working environment and achieve the highest productivity possible.

Auto parking brake

The parking brake operates automatically when the power is disengaged in order to prevent accidents caused by human error.

Speed limiter

A speed limit can be programmed in advance and activated using a switch on the console.

OPSS (Operator Presence Sensing System)

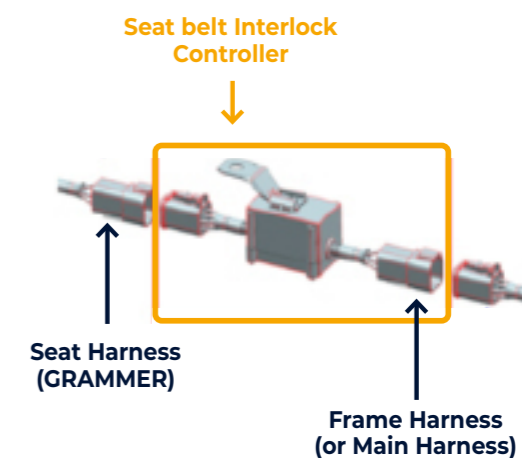


- DRIVE LOCK
- LIFT LOCK
- TILT LOCK

The OPSS System restricts driving, lifting and tilting, and it kicks in **automatically when the driver leaves the seat** to prevent accidents. It operates in conjunction with the auto parking brake to contribute to a safer workplace.

Seat belt interlock system

The seat belt interlock system protects operators from injury by **restricting equipment** operation if the seat belt warning has not been observed or if the operator unfastens the seat belt while driving.



Machine position warning



While driving the machine-control-unit (MCU) senses longitudinal and lateral movement and **alerts the driver if the preset stability values are exceeded.**

Powerful service brake

The main brake is fully hydraulic and provides reliable, precise braking power with light pedal operation. The system has been enhanced with an additional pressure accumulator and improved emergency braking capability.

Passcode-protected start-up

Operators can restrict machine operation by setting a passcode. This **prevents theft, break-ins or accidents** that could occur due to unauthorised access when the machine is not in use.

Serviceability

BUILT FOR QUICK, EASY SERVICING

The peace of mind that comes with fast, low-effort servicing is an important part of the Hyundai 9V Series philosophy. These forklifts are designed to make maintenance as convenient as possible, with all components and materials optimised to ensure a long, trouble-free service life.

Easy inspection of aftertreatment device



For greater convenience, the counterweight opening has been made as large as possible. This **eliminates the need to remove the counterweight** for inspection or exchange of the after-treatment device.

Low-maintenance hydraulic control valves

The load-sensing hydraulic control valves are designed for minimum leakage in lifting and tilting operations, descending speed control and emergency situations.

Auto tilting cabin

The **cabin can be tilted automatically** or manually by up to 52° to allow access to the power train and electric/hydraulic systems. To prevent accidental damage and protect the driver, cabin tilting is automatically disabled if the door is open.



Engine diagnostics and service scheduling



Maintenance Management				
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	●

Engine and transmission failure codes can be checked in the cluster with **no need for a separate diagnostic tool**. Replacement timing for consumable parts can also be set in the cluster. Operators will then be informed of upcoming servicing tasks through the display. This reduces downtime and increases peace of mind by making it easier to manage maintenance schedules.

One tyre size

The front and rear tyres and rims are the same size to reduce replacement part costs. This also means that, in the event of a rear tyre puncture, a front tyre can be used as a substitute on site.

Waterproof and dustproof fuse and relay box

All fuses and relays are centralised in an external container with **IP64 protection** against water and dust. This reduces the time needed for inspection and replacement.

Engine cover

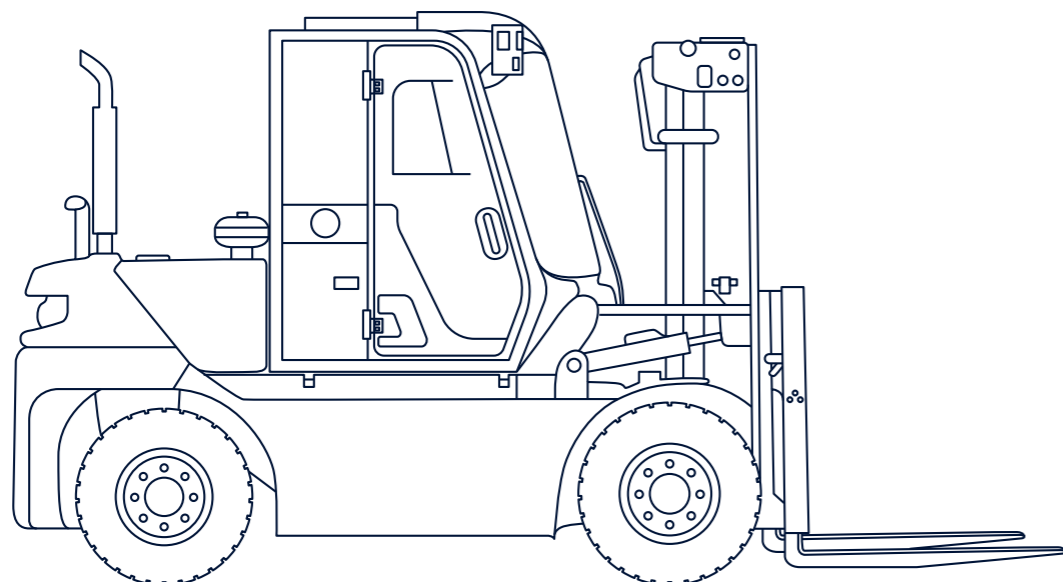
A wing-type engine cover **reduces equipment downtime** by providing quick, easy access to the radiator and engine consumables.

Emergency lowering screw

The MCV is equipped with an emergency lowering screw allowing the fork to be lowered if the hydraulic system is damaged.



Walk-around

70/80D-9V**Productivity & Efficiency**

- Stage V 2.9L HMC D4CC diesel engine
- Casappa variable load-sensing piston pump
- Load-sensing MCV (mechanical or fingertip) from Buchholz
- Enhanced powertrain with ZF transmission and HCM drive axle
- Upgraded instrument cluster
- Better all-round visibility from driver's seat

Safety

- Seatbelt interlock system
- Auto parking brake
- Operator Presence Sensing System (OPSS)
- Machine position warning
- Speed limiter
- Rear-view camera
- Passcode-protected start-up

Operator Comfort

- Comfortable cabin with revised layout for added space and convenience
- Premium quality Grammer seat
- Reduced steering wheel size
- Large colour monitor
- Independent monitor for rear view camera
- Fine-tuned fingertip control
- Optimised foot pedal position
- Additional heating vents

Serviceability

- Auto tilting cabin
- Easy-access engine cover
- Enlarged counterweight opening
- Water and dustproof fuse and relay box
- Engine diagnostics and service scheduling
- Emergency lowering screw
- Interchangeable front and rear tyres

Parts & Warranties

HYUNDAI GENUINE PARTS AND WARRANTIES: THE BEST WAY TO PROTECT YOUR INVESTMENT

Hyundai Genuine parts, accessories and warranty programmes are specially designed to keep your investment covered. They increase uptime and maintain the performance, comfort, and convenience that are built into your equipment.

**Leader in standard warranties for Stage V forklifts!**

Hyundai warranties are designed to give you the cover you need to build your business with confidence and peace of mind.

Best standard warranties in the industry

For extra reassurance, and to ensure maximum customer confidence, we are supplying all new stage V models with very good standard warranties.

The forklift **standard warranty covers you for two years or 3000 hours, whichever comes first.**

Hyundai Genuine parts

Hyundai Genuine parts have the same design as those installed when your machine left the factory. They are subjected

to rigorous quality inspections and tests to make sure they meet Hyundai's strict requirements for quality and durability. As well as minimising downtime, this helps to ensure peak performance in every task. In the 13000 m² warehouse, **Hyundai covers over 96% of all Genuine Parts.** With one of Europe's most advanced automated warehousing systems, we are able to maintain availability and efficient delivery of all our Genuine Parts.

A network you can rely on

HCEE prioritises quick, reliable intervention to keep your equipment running reliably. Thanks to the **extended dealer network across Europe, we will always be close by to ensure a timely and efficient solution.** Moreover, we guarantee a 24-hour delivery service across our European dealer network.

SPECIFICATIONS

Main characteristics			
1.1	Manufacturer	Hyundai	Hyundai
1.2	Manufacturer's type designation	70D-9V	80D-9V
1.3	Drive: Electric (battery or mains), Diesel, Petrol, Fuel Gas	Diesel	Diesel
1.4	Type of operation: Hand, Pedestrian, Standing, Seated, Order-Picker	Seated	Seated
1.5	Load capacity / rated load	7000	8000
1.6	Load center distance	600	600
1.8	Load distance, center of drive axle to fork	610	690
1.9	Wheelbase	2300	2500

Weights			
2.1	Service weight	kg	10083
2.2	Axle loading, loaded front / rear	kg	15036 / 2047
2.3	Axle loading, unloaded front / rear	kg	4338 / 5745

Tyres & chassis			
3.1	Tyres: Solid Rubber, Superelastic, Pneumatic, Polyurethane	P	P
3.2	Tyre size, front	8.25-15-14PR	9.00-20-14PR
3.3	Tyre size, rear	8.25-15-14PR	9.00-20-14PR
3.5	Wheels, number front / rear (X = driven wheels)	4 x 2	4x2
3.6	Tread, front	mm	1578
3.7	Tread, rear	mm	1602

Dimensions			
4.1	Tilt of mast / fork carriage forward / backward	degree	15 / 10
4.2	Lowered mast height	mm	2515
4.3	Free lift	mm	140
4.4	Lift height	mm	3030
4.5	Extended mast height	mm	4320
4.7	Height of overhead guard (cabin)	mm	2575
4.8	Seat height / stand height rel. to SIP	mm	1536
4.12	Coupling height	mm	508
4.19	Overall length	mm	4875
4.20	Length to face of forks	mm	3675
4.21	Overall width	mm	2088
4.22	Fork dimensions (hook type)	mm	65 x 150 x 1200
4.23	Fork carriage ISO 2328, class / type A, B		Class IV
4.24	Fork carriage width	mm	2068
4.31	Ground clearance, below mast, loaded	mm	195
4.32	Ground clearance, center of wheelbase	mm	224
4.34.1	Aisle width for pallets 1000 X 1200 crossways	mm	5251
4.34.2	Aisle width of pallets 800 X 1200 lengthways	mm	5451
4.35	Turning radius	mm	3436
4.36	Smallest pivot point distance	mm	1224

Performance data			
5.1	Travel speed, loaded / unloaded	km/h	29.6 / 33.3
5.2	Lift speed, loaded / unloaded	mm/s	450 / 480
5.3	Lowering speed, loaded / unloaded	mm/s	500 / 450
5.5	Drawbar pull, loaded / unloaded	N	-
5.6	Max. drawbar pull, loaded / unloaded	N	78600 / 74893
5.7	Gradeability, loaded / unloaded	%	-
5.8	Max. gradeability, loaded / unloaded	%	46.8 / 25.7
5.9	Acceleration time, loaded / unloaded	s	-
5.10	Service brake		Hydraulic

Engine			
7.1	Engine manufacturer / type		HMC D4CC
7.2	Engine power acc. to ISO 1585	kW/rpm	81 / 2200
7.3	Maximum torque	kgf·m/rpm	42.8 / 1600
7.4	No. of cylinder / displacement	EA/cc	4 / 2891
7.5	Fuel consumption acc. to VDI cycle	l/h	4.2

Additional data			
8.1	Type of drive control	AC	Full Auto
8.2	Operating pressure, system / attachments	bar	210 / 140
8.3	Oil volume for attachments	LPM	110
8.4	Sound level at driver's ear according to DIN 12053	dB (A)	74.6
8.5	Trailer coupling, type DIN		Pin

※ All technical data & charts in this brochure are based on MAST V300 (70D-9V), Hook type carriage, no side shift and fork positioner and 1200 mm fork length.

MAST SPECIFICATIONS

70D-9V - Standard: hook-on type fork & carriage												
Mast type	Maximum fork height	Overall height				Free lift height		Tilt angle		Load capacity without side shift at 600 mm LC	Load capacity with side shift at 600 mm LC	Truck weight unloaded
		Lowered	Extended		With load backrest	With std load backrest	Fwd	Bwd				
			Without load backrest	With std load backrest								
mm	mm	mm	mm	mm	mm	deg	deg	kg	kg	kg		
2-stage limited free lift	V270	2730	2365	3911	4020	140	140	15	10	7000	7000	10036
	*V300	3030	2515	4211	4320	140	140	15	10	7000	7000	10083
	V330	3330	2665	4511	4620	140	140	15	10	7000	7000	10131
	V350	3530	2765	4711	4820	140	140	15	10	7000	7000	10163
	V370	3730	2865	4911	5020	140	140	15	10	7000	7000	10195
	V400	4030	3015	5211	5320	140	140	15	10	7000	7000	10251
	V450	4530	3315	5711	5820	140	140	15	10	7000	7000	10478
	V500	5030	3565	6211	6320	140	140	15	10	7000	6920	10558
	V550	5530	3815	6711	6820	140	140	15	10	7000	6730	10638
3-stage full free lift	V600	6030	4065	7211	7320	140	140	15	10	7000	6550	10716
	V700	7030	4568	8211	8320	140	140	15	6	6680	6200	10873
	TF/TS450	4560	2565	5765	5805	1360	1275	15	10	7000	6840	10749
	TF/TS500	5060	2765	6265	6305	1560	1475	15	10	7000	6650	10841
	TF/TS560	5600	2965	6805	6845	1760	1675	15	10	6960	6450	10952
	TF/TS600	6060	3165	7265	7305	1960	1875	15	10	6780	6290	11039
	TS730	7330	3665	8535	8575	2460	2375	15	10	6320	5860	11299

80D-9V - Standard: hook-on type fork & carriage												
Mast type	Maximum fork height	Overall height				Free lift height		Tilt angle		Load capacity without side shift at 600 mm LC	Load capacity with side shift at 600 mm LC	Truck weight unloaded
		Lowered	Extended		With load backrest	With std load backrest	Fwd	Bwd				
			Without load backrest	With std load backrest								
mm	mm	mm	mm	mm	mm	deg	deg	kg	kg	kg		
2-stage limited free lift	V270	2740	2525	4048	4050	150	150	15	10	8000	8000	
	V300	3040	2675	4348	4350	150	150	15	10	8000	8000	
	V330	3340	2825	4648	4650	150	150	15	10	8000	8000	
	V350	3540	2925	4848	4850	150	150	15	10	8000	8000	
	V370	3740	3025	5048	5050	150	150	15	10	8000	8000	
	V400	4040	3175	5348	5350	150	150	15	10	8000	8000	
	V450	4540	3475	5848	5850	150	150	15	10	8000	8000	
	V500	5040	3725	6348	6350	150	150	15	10	8000	8000	
	V550	5540	3975	6848	6850	150	150	15	10	8000	7700	
	V600	6040	4225	7348	7350	150	150	15	10	7900	7500	
3-stage full free lift	V700	7040	4725	8348	8350	150	150	15	6	7500	7100	
	V750	7540	4975	8848	8850	150	150	15	6	7300	6900	
	TF/TS450	4570	2750	5902	5880	1418	1440	15	10	8000	8000	
	TF/TS500	5070	2950	6402	6380	1618	1640	15	10	8000	7800	
	TF/TS550	5570	3150	6902	6880	1818	1840	15	10	8000	7600	
	TF/TS600	6070	3350	7402	7380	2018	2040	15	10	7800	7400	
	TS665	6650	3570	7985	7963	2238	2260	15	10	7540	6980	
TS765	7650	3970	8985	8963	2638	2660	15	10	7050	6670		

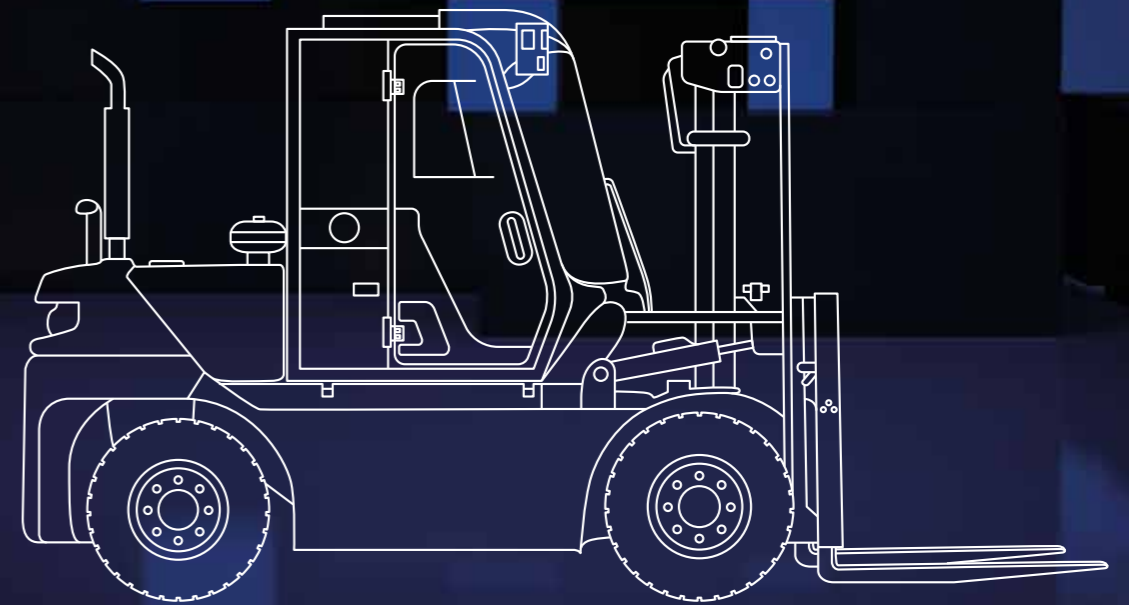
* Standard

MAST SPECIFICATIONS

70D-9V - Optional: shaft type fork & carriage												
Mast type	Maximum fork height	Overall height				Free lift height		Tilt angle		Load capacity without side shift at 600 mm LC	Load capacity with side shift at 600 mm LC	Truck weight unloaded
		Lowered	Extended		With load backrest	With std load backrest	Fwd	Bwd				
			Without load backrest	With std load backrest								
mm	mm	mm	mm	mm	mm	deg	deg	kg	kg	kg		
2-stage limited free lift	V270	2730	2365	-	3975	-	140	15	10	7000	-	10111
	*V300	3030	2515	-	4275	-	140	15	10	7000	-	10158
	V330	3330	2665	-	4575	-	140	15	10	7000	-	10206
	V350	3530	2765	-	4775	-	140	15	10	7000	-	10238
	V370	3730	2865	-	4975	-	140	15	10	7000	-	10269
	V400	4030	3015	-	5275	-	140	15	10	7000	-	10325
	V450	4530	3315	-	5775	-	140	15	10	7000	-	10553
	V500	5030	3565	-	6275	-	140	15	10	7000	-	10633
	V550	5530	3815	-	6775	-	140	15	10	7000	-	10712
	V600	6030	4065	-	7275	-	140	15	10	7000	-	10835
3-stage full free lift	V700	7030	4565	-	8320	-	140	15	6	7000	-	10907
	TF/TS450	4560	2565	-	5805	-	1320	15	10	7000	-	10751
	TF/TS500	5060	2765	-	6305	-	1520	15	10	7000	-	10845
	TF/TS560	5600	2965	-	6845	-	1720	15	10	7000	-	10956
	TF/TS600	6060	3165	-	7305	-	1920	15	10	6800	-	11045
TS730	7330	3665	-	8575	-	2420	15	10	6320	-	11304	

80D-9V - Optional: shaft type fork & carriage												
Mast type	Maximum fork height	Overall height				Free lift height		Tilt angle		Load capacity without side shift at 600 mm LC	Load capacity with side shift at 600 mm LC	Truck weight unloaded
		Lowered	Extended		With load backrest	With std load backrest	Fwd	Bwd				
			Without load backrest	With std load backrest								
mm	mm	mm	mm	mm	mm	deg	deg	kg	kg	kg		
2-stage limited free lift	V270	2740	2525	-	4075	-	150	15	10	8000	8000	
	V300	3040	2675	-	4375	-	150	15	10	8000	8000	
	V330	3340	2825	-	4675	-	150	15	10	8000	8000	
	V350	3540	2925	-	4875	-	150	15	10	8000	8000	
	V370	3740	3025	-	5075	-	150	15	10	8000	8000	
	V400	4040	3175	-	5375	-	150	15	10	8000	8000	
	V450	4540	3475	-	5875	-	150	15	10	8000	8000	
	V500	5040	3725	-	6375	-	150	15	10	8000	7900	
	V550	5540	3975	-	6875	-	150	15	10	8000	7700	
	V600	6040	4225	-	7375	-	150	15	10	7900	7400	
3-stage full free lift	V700	7040	4725	-	8375	-	150	15	6	7500	7000	
	V750	7540	4975	-	8875	-	150	15	6	7300	6800	
	TF/TS450	4570	2750	-	5905	-	1415	15	10	8000	8000	
	TF/TS500	5070	2950	-	6405	-	1615	15	10	8000	7800	
	TF/TS550	5570	3150	-	6905	-	1815	15	10	8000	7600	
	TF/TS600	6070	3350	-	7405	-	2015	15	10	7800	7400	
	TS665	6650	3570	-	7988	-	2235	15	10	7540	6980	
TS765	7650	3970	-	8988	-	2635	15	10	7050	6670		

* Standard



STAGE





* Standard and optional equipment may vary by country. Contact your Hyundai dealer for more information.

* The machine may vary according to International standards. European specifications may differ from Korean specifications mentioned in the brochures.

* The photos may include attachments and optional equipment that are not available in your area.

* Materials and specifications are subject to change without advance notice.

Hyundai Construction Equipment Europe NV
Hyundailaan 4, 3980 Tessenderlo, Belgium
Tel: (+32) 14-56-2200 Fax: (+32) 14-59-3405

Contact your Hyundai dealer.
hyundai-mh.eu

Address