

# 120/130/160D-9V/160D-9LV

## STAGE V DIESEL FORKLIFT TRUCKS



**Load Capacity**  
12000 kg – 16000 kg

**Load Centre Distance**  
600 mm – 1200 mm

**Engine Power**  
123 kW – 209 kW

**Lift Height**  
3000 mm – 7500 mm

# UPGRADE YOUR OFFICE

## The New Heavy-line Range of Hyundai Forklifts

If you're spending all your working day in an uncomfortable, cramped cab with badly organised controls, then it's time to upgrade your office. The new Hyundai 120, 130, 160D-9V and 160D-9LV Heavy Line Forklifts are quieter and more comfortable, with easy-to-use fingertip controls for complete stress-free working. And with a new design that enables greater visibility and includes many added safety features, productive, peace of mind operating is assured.

# UPGRADE YOUR PRODUCTIVITY

By listening to customer comments, we've been able to design our next generation cab. This extra insight has enabled us to improve operator comfort, control and convenience to allow more productive working in any environment. Easy-to-see, multi-functional displays also keep operators informed about machine performance and outside obstacles.

## Designed for efficient operation

### Quieter

We've reduced noise dramatically inside the cab by optimising engine capacity, reducing cooling fan RPM and redesigning the cabin structure.

### Easy-to-use steering wheel A

The problem of heavy handling has been significantly improved with a new steering wheel design. It can be adjusted up and down by 85mm and forwards and backwards by 36 degrees. In addition, operator control has been enhanced by reducing its diameter by 35mm.

### Digital displays

A multi-functional digital display cluster delivers essential information in colour. It is equipped with various features such as function settings and malfunction diagnosis of major parts.

### Air suspension & swivel seat ▼

Optimal riding comfort has been achieved with an optional air suspension and swivel seat. This also improves reverse driving and aids getting on and off, as the seat can be rotated 20 degrees to the right and 10 degrees to the left.



The inching and brake pedals make for easier operation.

A double 12V Powerport and 4 storage areas are designed for specific uses, including mobile phone and drink holders



### Stay comfortable ▶

Working for long hours in the cab is no problem, with air conditioning through multiple air vents that control the air volume in four directions.

### Increased visibility

Operator visibility has been improved using distortionless single curvature front glass that doesn't distort the view and sun visors.

### Fingertip control ▶

Fine controllability has been improved by our new fingertip system which changes MCV control to dither control. The system provides fast response, within 0.1 seconds and gives the same controllability regardless of ambient temperature. All switches have been placed in one row, in order of use frequency. The AC control Dial is now integrated in the headliner.

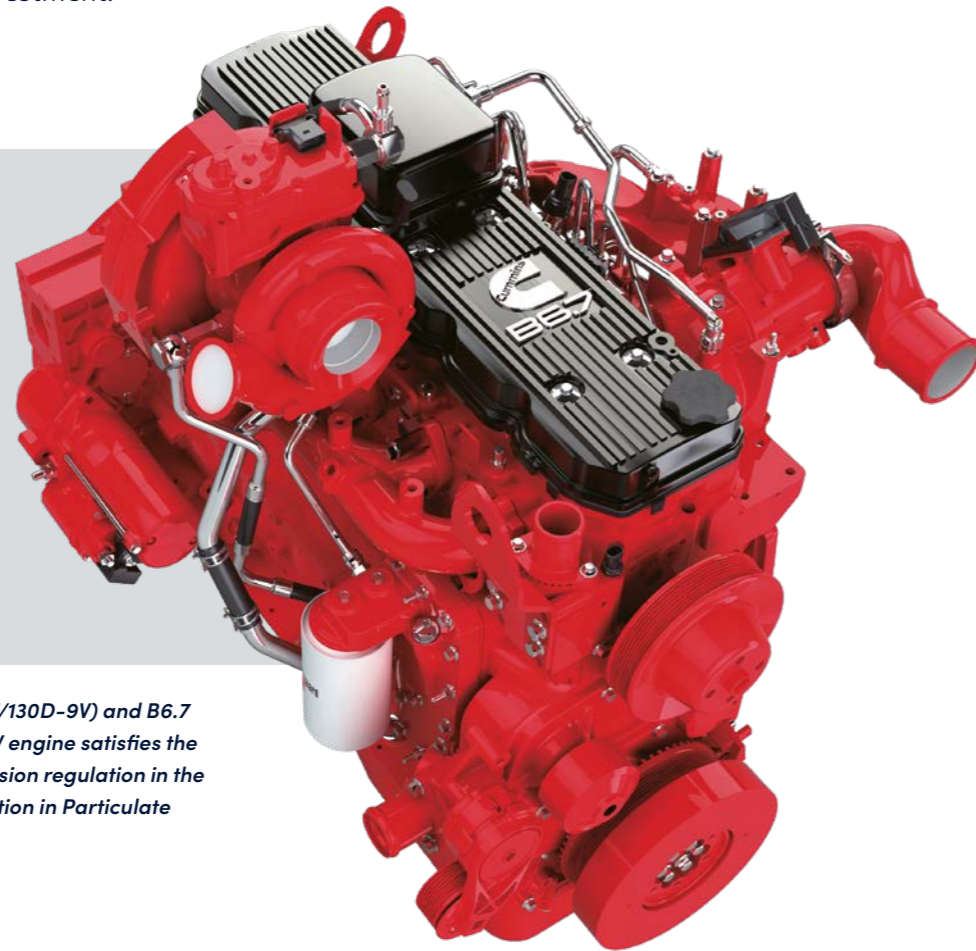


# UPGRADE YOUR EFFICIENCY

With a new reliable Stage V engine and upgraded transmission along with many new features and technologies, the new Hyundai Heavy Line Forklifts are more fuel efficient compared to our previous models. And when you add improved serviceability thanks to the electronically tilting cabin, plus Hyundai's remote management system and world-class support, you're looking at a low cost of ownership that's a great business investment.

## EU Stage V Certified Engine

Reliable Cummins B series engines are widely used throughout the world and they satisfy the latest European emission regulations. The EGR (Exhaust Gas Reduction) system was removed to improve energy efficiency and reliability. A new DPF has been added, in addition to the existing DOC and SCR.



The Cummins B4.5 (120D-9V/130D-9V) and B6.7 (160D-9V/160D-9LV) Stage V engine satisfies the strictest environmental emission regulation in the world including a 60% reduction in Particulate Matter (PM).

## The technology to improve efficiency

### Upgraded ZF transmission

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

### Load sensing hydraulics

Fuel efficiency is dramatically improved by using an optimised engine, removing the EGR system and applying a Load Sensing Variable Displacement Pump and a Load Sensing MCV.

### Engine output selection button

On the engine output button, STD mode is set to 80% output of PWR mode and can be selected for reducing fuel consumption. PWR mode is available for full load transit or uphill driving.



Engine output button



Improved  
**FUEL  
EFFICIENCY**  
(Compared to previous model)



### Greater visibility improves productivity

Usually a 3-stage mast compromises forward visibility due to the primary cylinder being in the centre. Our 3-stage TS mast provides a wider view by placing the primary cylinder on the left and right sides.

### Tilt lock function ▶

This new addition locks the back tilt to prevent the natural sagging of the mast.



# UPGRADE YOUR SAFETY

The Hyundai approach to safety goes far beyond just meeting regulatory standards. We prioritise safety in every aspect of our machines and work with our customers to keep improving protection for operators, co-workers, buildings, materials and of course the machines themselves.

## Visibly safer

### 3-stage TS mast

The 3-stage TS mast provides a wider working view by placing the primary cylinder on the left and right sides.

### Minimising blind spots

We've minimised blind spots in the field of view by increasing the glass area and there is now no filler in the middle of the door. This also prevents damaging the glass when moving objects in the cabin.

### Rear view camera

The addition of an optional rear view camera provides extra peace of mind for operators, especially when working in confined spaces..

### Heated side mirror

A large side mirror is installed on the front wheel fender to secure a wider rear view. Optionally the mirror can be heated, preventing freezing.



## Extra safety features

### Password protection

A password can be set to prevent unauthorised driving and theft. 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 error. If the driver needs to use the parking brake while the engine is running, they can apply or release it 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.

### Speed limit

A maximum driving speed can be set to prevent accidents caused by exceeding the speed limit. Even with the maximum driving speed set hill-climbing and mast working performance is maintained.

### Road slope (STD) and steering angle display **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 sounds. The steering tyre position is also displayed in real time.



*Additional options for safety include Auto Tilting which automatically maintains the level of the fork with the ground.*

# UPGRADE YOUR MAINTENANCE

Our new Heavy Line Diesel Forklifts are designed with quick, low-effort servicing in mind, while every component and material has been optimised to ensure a long, trouble-free life. Hyundai's innovative Hi MATE telematics system enables full monitoring of machine activity and performance for greater productivity and profitability.

## Less maintenance. More uptime

### Improved routine maintenance

Easy access for maintenance means regular checks get done faster, giving you more uptime and reducing operating costs. Ground level access to filters, lube fittings and master switches make servicing more convenient.

### Longer service intervals

The fuel filter service interval on the new engine has been increased by 100% – from 500 hours to 1,000 hours, greatly to reducing maintenance costs.

### Easy access tilting cab

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

### Self-diagnosis of engine and consumables management

The history of failure details can be checked on the cluster screen. And when the replacement cycle of any consumables is entered into the cluster, parts that are due replacement are displayed on the monitor.

### No cab tilting when the door is opened

If the right side door is open, damage to it is prevented by no cabin tilting. The cabin can be opened and closed both automatically or manually.

### Tankless-type compressor

Unlike tank-type compressors that require time to be refilled, our tankless-type compressor instantly delivers compressed air at a constant pressure.

### Automatic DPF & SCR regeneration

The DPF and SCR are automatically regenerated with the help of hydraulic engine load. The DPF Filter element can be easily removed through the counterweight opening.

## Hi MATE

It's convenient, easy and valuable. Hi MATE, Hyundai's remote management system, utilises GPS-satellite technology to provide customers with the highest level of service and product support available.

### Increase productivity

By providing information such as service hours, idle time and fuel consumption, Hi MATE saves you money and improves productivity. Service alerts enable better maintenance planning.

### Monitor your machines

Hi MATE's real-time location information allows convenient monitoring of your equipment via the Hi MATE website or mobile app.

### Improve Security

Protect your equipment from theft or unauthorised usage. Hi MATE's geofencing alerts notify you automatically when a machine leaves a predetermined zone.

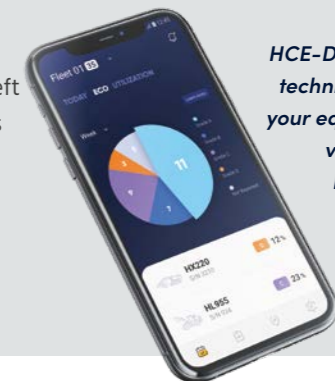
### ECD

#### (Engine Connected Diagnostics)

ECD provides troubleshooting information as well as tailored servicing. Service technicians are supported with remote diagnostics allowing them to achieve quick resolution rate

### Mobile fleet app

Our Mobile Fleet app provides all the information you need to run your fleet efficiently and economically.



*HCE-DT Air allows service technicians to connect to your equipment wirelessly via smartphone and laptop right on site.*

## Keeping you covered

Hyundai genuine parts and accessories are designed to keep your machine running at optimum performance, providing increased uptime, comfort

and productivity. Our 13000m<sup>2</sup> European Parts Warehouse guarantees 24-hour delivery across our dealer network.



# TAKE THE TOUR!

## UPGRADE YOUR OFFICE

- New Next Generation cab
- Reduced cabin noise (4.9 to 5.9dB)
- Multi-functional digital display cluster
- Air suspension & swivel seat OPTION
- Air conditioning
- 1-piece, distortionless glass
- Fingertip controls

## UPGRADE YOUR EFFICIENCY

- Reliable Stage V Cummins B series engine
- Improved fuel efficiency
- No EGR (Exhaust Gas Reduction) system
- New added DPF
- Upgraded ZF transmission
- Load sensing hydraulics
- Engine output selection button
- Greater visibility for improved productivity
- Kessler front axle

## UPGRADE YOUR SAFETY

- 3-stage TS mast with wider field of view
- Increased glass area
- Rear view camera
- Heated side mirror
- Password to start engine
- Auto-parking brake
- OPSS system
- Travel speed limit
- Road slope warning alarm

## UPGRADE YOUR MAINTENANCE

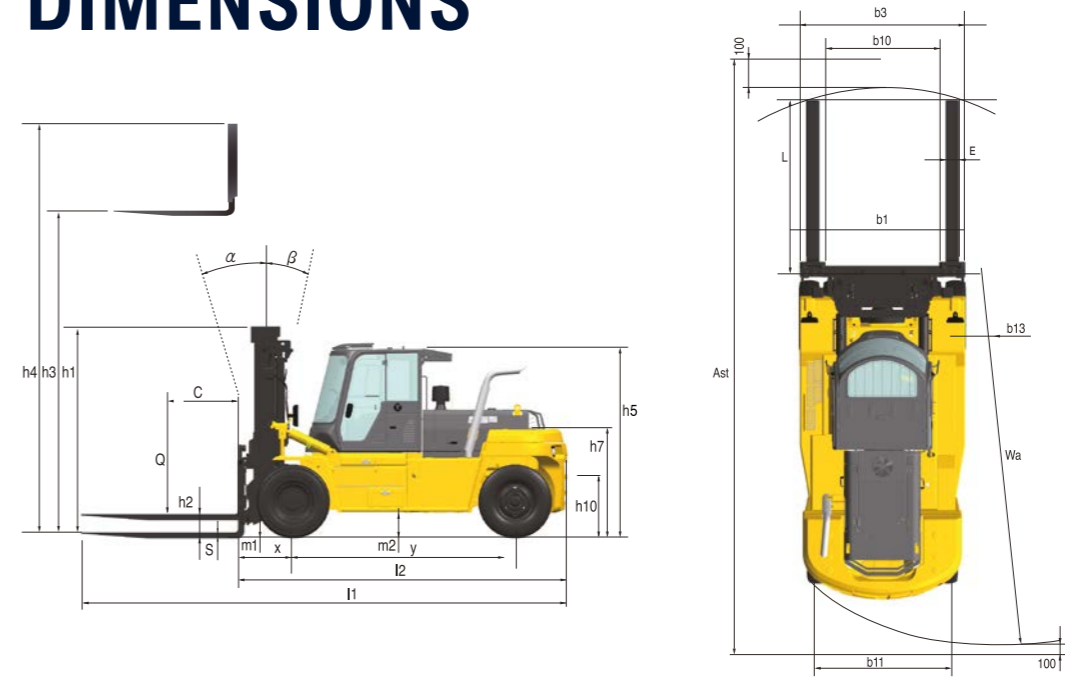
- Hi MATE remote management system
  - ECD (Engine Connected Diagnostics)
  - Mobile fleet app
- Easy access tilting cab
- Longer lasting fuel filter
- Ground level routine maintenance
- Tankless-type compressor
- Automatic DPF & SCR regeneration



# 120/130/160D-9V/160D-9LV SPECIFICATIONS

IDENTIFICATION						
Manufacturer (abbreviation)	1.1			Hyundai	Hyundai	Hyundai
Manufacturer's type designation	1.2			120/130D-9V	160D-9V	160D-9LV
Drive : electric (battery or mains), diesel, petrol, fuel gas	1.3			Diesel	Diesel	Diesel
Type of operation: hand, pedestrian, standing, seated, order-picker	1.4			Seated	Seated	Seated
Load capacity / rated load	1.5		kg	12000/13000	16000	16000
Load center distance	1.6	C	mm	600	600	1200
Load distance, center of drive axle to fork	1.8	x	mm	770	815	999
Wheelbase	1.9	y	mm	3050	3450	3750
Service weight	2.1		kg	16337/17105	20499	25826
Axle loading, loaded front/rear	2.2		kg	120 : 24051/3286 130 : 26981/3124	32479/4020	39953/3874
Axle loading, unloaded front/rear	2.3		kg	120 : 8182/8155 130 : 8142/8963	9916/10583	12838/12988
Tires : solid rubber, superelastic, pneumatic, polyurethane	3.1			PNEUMATIC	PNEUMATIC	
Tire size, front	3.2			10.00-20-16PR	12.00-20-18PR	12.00 R20
Tire size, rear	3.3			10.00-20-16PR	12.00-20-18PR	12.00 R20
Wheels, number front / rear (x = driven wheels)	3.5			4x2	4x2	4x2
Tread, front	3.6		mm	1842	1842	1848
Tread, rear	3.7		mm	1910	1958	2025
Tilt of mast/fork carriage forward/backward	4.1	$\alpha / \beta$	degree	15/12	15/12	10 / 10
Height, mast lowered	4.2	h1	mm	3150	3400	3700
Free lift	4.3	h2	mm	0	0	0
Lift height	4.4	h3	mm	3305	3300	4020
Height, mast extended	4.5	h4	mm	4765	5010	5655
Height of overhead guard (cabin)	4.7	h5	mm	2955	2990	2995
Seat height / stand height rel. To sip	4.8	h7	mm	1825	1825	1826
Coupling height	4.12	h10	mm	626	665	1825
Overall length	4.19	l1	mm	5930	6430.5	8045
Length to face of forks	4.20	l2	mm	4580	5080.5	5595
Overall width	4.21	b1	mm	2450	2497	2540
Fork dimensions	4.22	l x e x s	mm	85x200x1350	90x200x1350	100x250x2450
Fork carriage iso 2328, class / type A, B	4.23			Pin Mount	Pin Mount	-
Fork-carriage width	4.24	b3	mm	2362	2497	2540
Ground clearance, below mast, loaded	4.31	m1	mm	250	250	245
Ground clearance, center of wheelbase	4.32	m2	mm	316	355.5	356
Aisle width for pallets 1000 x 1200 crossways	4.34.1	Ast	mm	6660	7280	8983
Aisle width for pallets 800 x 1200 lengthways	4.34.2	Ast	mm	6660	7280	8983
Turning radius	4.35	Wa	mm	4350	4895	5334
Smallest pivot point distance	4.36		mm	1634	1865	2048
Travel speed, loaded / unloaded	5.1		km/h	32.7/35.8	30.5/34.2	34.2/36.9
Lift speed, loaded / unloaded	5.2		mm/s	480/500	390/420	380/400
Lowering speed, loaded / unloaded	5.3		mm/s	550/500	550/450	450/395
Drawbar pull, loaded / unloaded	5.5		N	-	-	-
Max. Drawbar pull, loaded / unloaded	5.6		N	122740/116895	155230/145972	149354/140416
Gradeability, loaded / unloaded	5.7		%	-	-	-
Max. Gradeability, loaded / unloaded	5.8		%	40.5/27.4	42.6/27.7	32.3/30.3
Acceleration time, loaded / unloaded	5.9		s	-	-	-
Service brake	5.10			Hydraulic	Hydraulic	Hydraulic
Engine manufacturer / type	7.1			CUMMINS/B4.5	CUMMINS/B6.7	CUMMINS/B6.7
Engine power acc. To ISO 1585	7.2		kW/rpm	123/2200	129/2200	209/2200
Maximum torque	7.3		kgf m/rpm	77.9/1200	114.3/1100	117/1500
No. Of cylinders / displacement	7.4		EA/cc	4/4460	6/6690	6/6690
Operating pressure, system / attachments	8.2		bar	230	230	168
Oil volume for attachments	8.3		LPM	100	100	100
Sound level at the driver's ear according to DIN 12053	8.4		dB (A)	70.4	68.6	69.9
Trailer coupling, type din	8.5			Pin	Pin	Pin

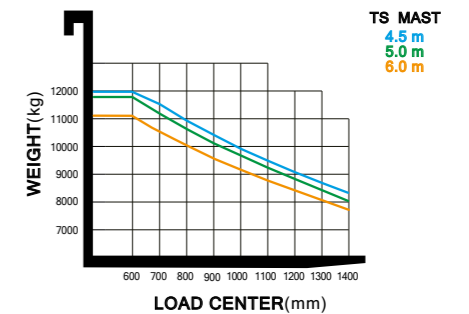
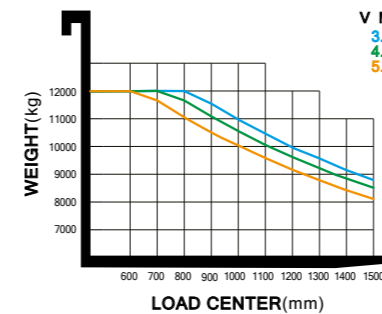
# DIMENSIONS



# 120D-9V MAST SPECIFICATION

## 120D-9V MAST

Mast Type	Maximum Fork Height (mm)	Overall Height (Lowered) mm	Free Lift Height (mm)	Mast Tilt (deg)		Load capacity 600mm LC	Truck Weight (Unloaded) (kg)
				FWD	BWD		
2 Stage Without Free Lift	V300	3005	3000	0	15	12000	16261
	V330	3305	3150	0	15	12000	16337
	V350	3505	3250	0	15	12000	16387
	V400	4005	3550	0	15	12000	16639
	V450	4505	3800	0	15	12000	16764
	V500	5005	4100	0	15	12000	16914
	V550	5505	4350	0	15	11880	17144
	V600	6005	4650	0	15	11520	17296
3 Stage Full Free Lift	V650	6505	4900	0	15	11190	17429
	V700	7005	5150	0	15	10860	17560
	TS450	4521	2950	1555	10	12000	17391
	TS500	5025	3117	1725	10	11790	17482
	TS550	5525	3284	1891	10	11440	17574
	TS600	6023	3551	2055	10	11080	17720
	TS650	6525	3718	2223	10	10760	17812
	TS700	7025	3935	2389	10	10420	18052
TS750	7525	4102	2555	10	10120	18145	





# 130D-9V MAST SPECIFICATION

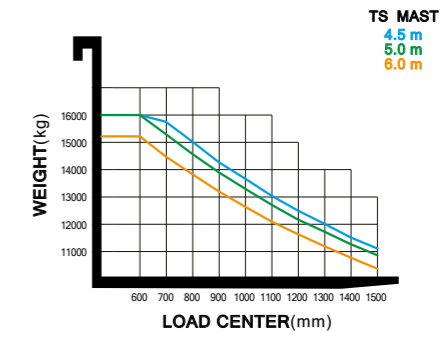
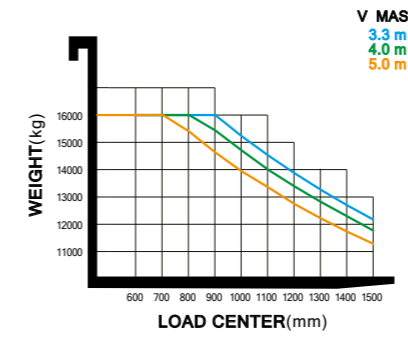
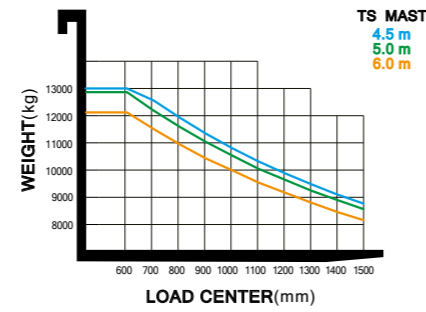
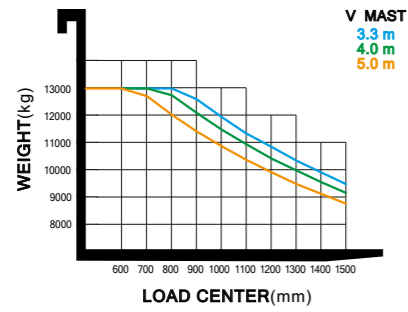
# 160D-9V MAST SPECIFICATION

## 130D-9V MAST

Mast Type	Maximum Fork Height (mm)	Overall Height (Lowered) mm	Free Lift Height (mm)	Mast Tilt (deg)		Load capacity 600mm LC	Truck Weight (Unloaded) (kg)
				FWD	BWD		
2 Stage Without Free Lift	V300	3005	3000	0	15	13000	17029
	V330	3305	3150	0	15	13000	17105
	V350	3505	3250	0	15	13000	17154
	V400	4005	3550	0	15	13000	17407
	V450	4505	3800	0	15	13000	17532
	V500	5005	4100	0	15	13000	17681
	V550	5505	4350	0	15	13000	17912
	V600	6005	4650	0	15	12610	18064
	V650	6505	4900	0	15	12250	18197
V700	7005	5150	0	15	11900	18328	
3 Stage Full Free Lift	TS450	4521	2950	1555	10	13000	18223
	TS500	5025	3117	1725	10	12860	18314
	TS550	5525	3284	1891	10	12480	18406
	TS600	6023	3551	2055	10	12100	18552
	TS650	6525	3718	2223	10	11750	18644
	TS700	7025	3935	2389	10	11380	18884
TS750	7525	4102	2555	10	11060	18977	

## 160D-9V MAST

Mast Type	Maximum Fork Height (mm)	Overall Height (Lowered) mm	Free Lift Height (mm)	Mast Tilt (deg)		Load capacity 600mm LC	Truck Weight (Unloaded) (kg)
				FWD	BWD		
2 Stage Without Free Lift	V300	3010	3250	0	15	16000	20404
	V330	3310	3400	0	15	16000	20499
	V350	3510	3500	0	15	16000	20543
	V400	4010	3750	0	15	16000	20831
	V450	4510	4000	0	15	16000	20985
	V500	5010	4300	0	15	16000	21168
	V550	5510	4550	0	15	16000	21436
	V600	6010	4850	0	15	16000	21619
	V650	6510	5125	0	15	15700	21785
	V700	7010	5375	0	15	15270	21936
2 Stage Full Free Lift	VS300	3010	3200	1550	10	16000	20433
	VS330	3310	3350	1700	10	16000	20513
	VS350	3510	3450	1800	10	16000	20577
	VS400	4010	3700	2050	10	16000	20741
	VS450	4510	3950	2300	10	16000	20996
	VS500	5010	4250	2550	10	16000	21194
	VS550	5510	4500	2800	10	16000	21388
3 Stage Full Free Lift	VS600	6010	4800	3050	10	16000	21649
	TS450	4516	2950	1500	10	16000	21508
	TS500	5017	3167	1667	10	16000	21708
	TS550	5515	3333	1833	10	15680	21856
	TS600	6016	3550	2000	10	15220	22053
	TS650	6517	3717	2167	10	14800	22211
	TS700	7015	3933	2333	10	14360	22523
	TS750	7515	4100	2501	10	13960	22686

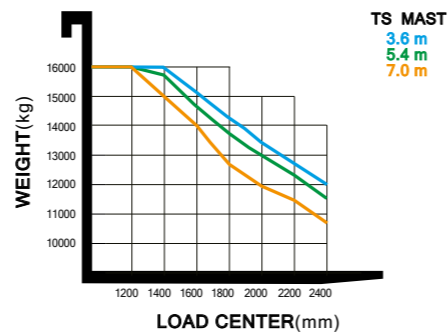
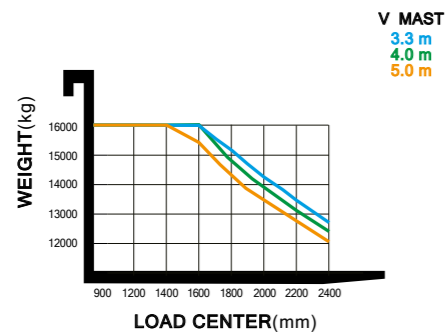


160D-9LV

# MAST SPECIFICATION

## 160D-9LV MAST

Mast Type	Maximum Fork Height (mm)	Overall Height (Lowered) mm	Free Lift Height (mm)	Tilt Angle		Load capacity 1200mm LC	Truck Weight (Unloaded) (kg)	
				FWD	BWD			
2 Stage Without Free Lift	V300	3020	3200	0	10	10	16000	25114
	V330	3320	3350	0	10	10	16000	25242
	V350	3520	3450	0	10	10	16000	25318
	V400	4020	3700	0	10	10	16000	25689
	V450	4520	3950	0	10	10	16000	25835
	V500	5020	4200	0	10	10	16000	26212
	V550	5520	4450	0	10	10	16000	26426
	V600	6020	4700	0	10	10	16000	26641
	V650	6520	4950	0	10	10	16000	26838
V700	7020	5200	0	10	10	16000	27028	
3 Stage Full Free Lift	TS460	4634	2950	1538	10	10	16000	26498
	TS508	5084	3100	1688	10	10	16000	26670
	TS538	5384	3200	1788	10	10	16000	26841
	TS568	5684	3300	1888	10	10	16000	26933
	TS600	6044	3420	2008	10	10	16000	27070
	TS658	6584	3600	2188	10	10	16000	27264
TS700	7034	3750	2338	10	10	16000	27413	



# STANDARD/OPTIONAL EQUIPMENT

CABIN & INTERIOR	120D-9V	130D-9V	160D-9V	160D-9LV
New Cabin	•	•	•	•
Wiper for Top window				
A/C & Heater*	•	•	•	•
<b>Seat</b>				
Long Back Seat - Full Suspension	•	•	•	•
Seat Options - Air suspension & Swivel seat, Leather Seat, Heat				
Seat Accessories - Orange belt, Arm rest, Buckle switch	•	•	•	•
<b>Lever</b>				
Lever - General	•	•	•	•
Finger Tip				
Bluetooth Radio	•	•	•	•

\*The air conditioning system contains fluorinated greenhouse gas refrigerant R134a. (Global Warming Potential: 1,430) The system contains 0.55 kg refrigerant representing a CO<sub>2</sub> equivalent of 0.787 metric tonnes.

MAST & ATTACHMENT	120D-9V	130D-9V	160D-9V	160D-9LV
<b>Mast</b>				
Standard Mast	V400	V400	V400	V400
2-Stage Mast	•	•	•	•
3-Stage Mast				
<b>Fork</b>				
Standard Fork	2440mm	2440mm	2440mm	2440mm
Fork Options - 1,200mm - 2,600mm Fork				
<b>Carriage</b>				
Shaft(pin) Type Carriage	•	•	•	
Carriage Options				
Shaft	•	•	•	
Sliding				•
Sliding & Holder				
Simple type				X
<b>Attachment</b>				
Integral Side Shift				
Fork Positioner - Independent, Synchronized				
Side Shift & Positioner - Independent, Synchronized	•	•	•	•

HYDRAULIC	120D-9V	130D-9V	160D-9V	160D-9LV
4 Spool MCV + attached piping for V400 Mast	•	•	•	•
MCV Options - 5 Spool				
Attached Piping for All MCVs & Masts				

TYRE	120D-9V	130D-9V	160D-9V	160D-9LV
Pneumatic Tires	•	•	•	•
Tire Options - Solid Tires				

VISIBILITY	120D-9V	130D-9V	160D-9V	160D-9LV
<b>Lamp</b>				
Working Lamp - Front & Rear LED	•	•	•	•
<b>Mirror</b>				
L/H & R/H Back Mirror & Panorama Mirror	•	•	•	•
Heated L/H & R/H Back Mirror				
<b>Camera</b>				
Rear Camera				

CONVENIENCE	120D-9V	130D-9V	160D-9V	160D-9LV
<b>Auto Tilt</b>				
Load Sensor	•	•	•	•
Load Sensor & Angle Sensor				
Accumulator				
Unidirectional Fan	•	•	•	•

SAFETY	120D-9V	130D-9V	160D-9V	160D-9LV
<b>Seat Belt interlock</b>	•	•	•	•
LED Beacon Lamp				

OTHERS	120D-9V	130D-9V	160D-9V	160D-9LV
<b>Air Compressor</b>				
Under Cover				
Oil - VG46	•	•	•	•
Hi-MATE (General)				
Hi-MATE (Premium)				

• Standard

X Not available

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

The machine may vary according to International standards.

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

Specifications and design are subject to change without notice. Pictures of Hyundai Material Handling Europe products may show other than standard equipment. This brochure is intended for European markets only.

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Contact your Hyundai dealer.  
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