

22/25/30/33D-9

Diesel Counterbalance Trucks

MOVING YOU FURTHER

HYUNDAI HEAVY INDUSTRIES



■ Some of the photos may include optional equipment.

 **HYUNDAI | FORKLIFT**
HEAVY INDUSTRIES

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 **HYUNDAI**
HEAVY INDUSTRIES

Your satisfaction is our priority!

Hyundai introduces a new line of 9-series diesel forklift trucks.

The newly designed 4 wheel counterbalance trucks provide every operator comfortable driving, increased productivity and easy maintenance.

New Diesel Forklift with Proven Quality and Advanced Technology

- Maximum performance
- Spacious operator's cab
- Switch type parking brake
- 5.6 inch LCD color monitor
- Truck inclination warning system
- OPSS System for safe operation
- Easy serviceability
- Max speed limit function
- HAC(Hillstart-Assistance Control)
- Password starting system
- Auto fork leveling system (Optional)
- Load weight indicator (Optional)



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High Efficiency & Optimal Performance

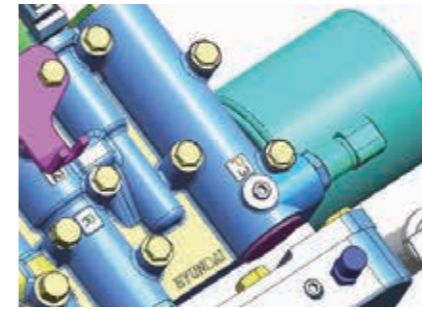


Powerful engine and high technology systems provide you with enhanced performance and highest productivity.

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Clutch Protection System

The clutch protection system prevents excessive use of inching as well as minimizes change-impact.



Boosting Type Brake Valve (Optional)

The boosting type brake valve is applied for strong braking performance.



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 Hydrostatic Power Steering

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



KUBOTA V3307 Engine 50kW/2,300rpm

High Power Engine - KUBOTA V3307

Market approved quality of KUBOTA V3307 engine ensures incomparable performance, durability and excellent fuel efficiency. This engine meets EPA Tier IV Final and EU stage III B emission regulations.



Travel Speed (MAX)

Model	km / h
22D-9	18.5
25D-9	18.5
30D-9	20.0
33D-9	19.9

Gradeability (MAX)

Model	%
22D-9	45.8
25D-9	40.7
30D-9	31.4
33D-9	29.0

Faster Travel Speed & Gradeability

The powerful high-output engine provides greater acceleration, better gradeability and faster travel speed on any tough terrain or slope.

Best Convenience & Optimized Ergonomics



The ergonomically designed cabin and the new style LCD color monitor provides full support and comfort to the operator.

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Spacious Operator Cabin

The newly designed cabin provides wide visibility and spacious environment, ensuring all day comfort for the operator.



Optimized Pedal Position

On the 9-series the pedals are mounted to the console to reduce operator fatigue, and noise and dust from the engine compartment.



Low Entrance Height

The low entrance height ensures easy and safe access for the operator.



Adjustable Steering Wheel

To achieve a comfortable drive position, the angle of the steering column can easily be adjusted by a lever on the right-hand side of the steering column.



Comfortable Grammer Seat

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

*ELR (Energy Locking Retractor) Type Seat Belt

*Heating and Head-rest (OPT)

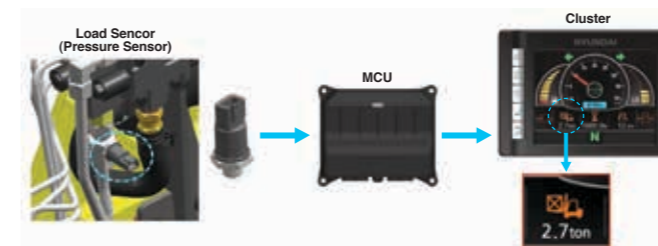
Advanced LCD Monitor

The 5.6 inch wide screen LCD color monitor allows the operator to control the machine with ease. The monitor features speed, travel direction, battery discharge indicator and hour meter.



Max Speed Limit System

- Safety function for the customer
- Maximum speed limit range : 8 km/h ~ 20 km/h (Selectable)
- Easy to set the function enabled and maximum speed value by the cluster
- Very smooth control (Travel speed reaches to the maximum speed smoothly)



Load Indicator (Optional)

The optional load indicator displays the load weight on the monitor. The load sensor reduces the time to check loaded weight and the alarm alerts the driver when overloaded.



Auto Fork Leveling System (Optional)

To improve the productivity the auto fork leveling system will automatically stop the tilt movement when the mast is in a straight position.

Advanced Safety



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

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Excellent Visibility for Safe Operation

Optimized lift cylinder arrangement provides operator with wider visibility. The panoramic mirror expands the driver's view when backing up.

*Some of the photos may include optional equipment.



HAC (Hill Start Assist Control System)

Anti-roll back the truck when the truck restart in the slope way.

Fork Safety Features

When the forks are being lowered, a down-control valve maintains the controlled speed. The down-safety valve prevents forks from dropping down in case of sudden damage of hydraulic line.

OPSS (Operator Presence Sensing System)

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

- Lift Lock
- Tilt Lock
- Drive Lock
- Parking



*Some of the photos may include optional equipment.



Strong Overhead Guard

Exceeding CEE and ANSI regulations, the overhead guard offers optimal protection combined with excellent all round visibility.



Steel Side Cover (Optional)

The strengthened steel side cover provides enhanced durability.



Safety Lamps & Rear Reflectors

Halogen headlights and rear LED combination lights offer the driver visibility in all circumstances. Rear reflectors mounted on the counterweight enhance safety for the driver and the application.

Fast and Easy Maintenance

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

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Large Engine Hood

Highly accessible engine compartment assures fast and efficient maintenance. The enlarged air cleaner(8") has extended service time of engine.

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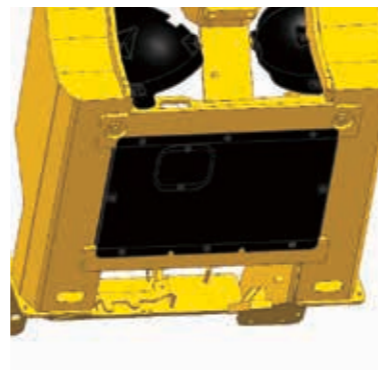
Waterproof & Dustproof Cover

Newly developed Waterproof and Dustproof fuse box and relay box for ease of maintenance.



Rear Tire Cover

The rear tire cover with PE material is well-suited to prevent clogging of the radiator from foreign substances.



Under Cover (Optional)

The Under cover protect the engine and components from dusts caused by ground. It helps to lengthen Components life.



Rear View Camera
(Optional)



Parking Brake Switch
With auto parking function when the operator is not in the seat

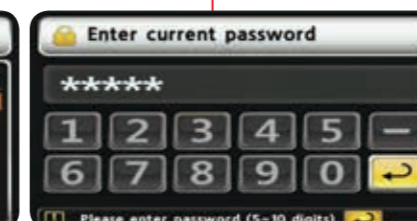


Emergency Switch
(option)

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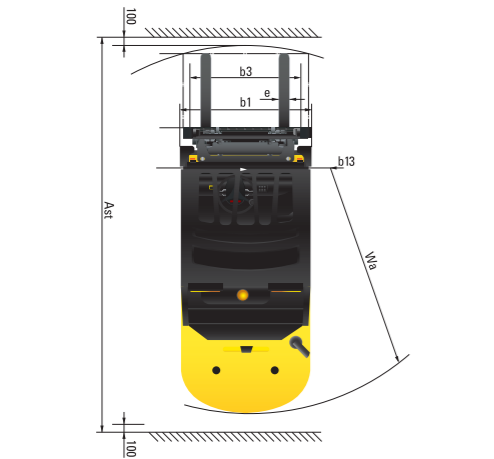
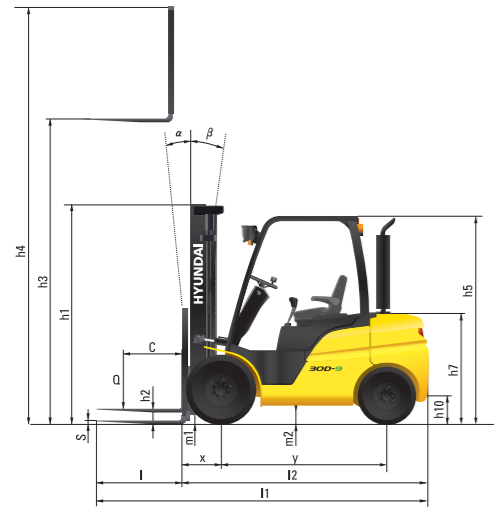
Maintenance Management Display



Password Starting System
(Anti-theft system)

New 9 Series

Dimension

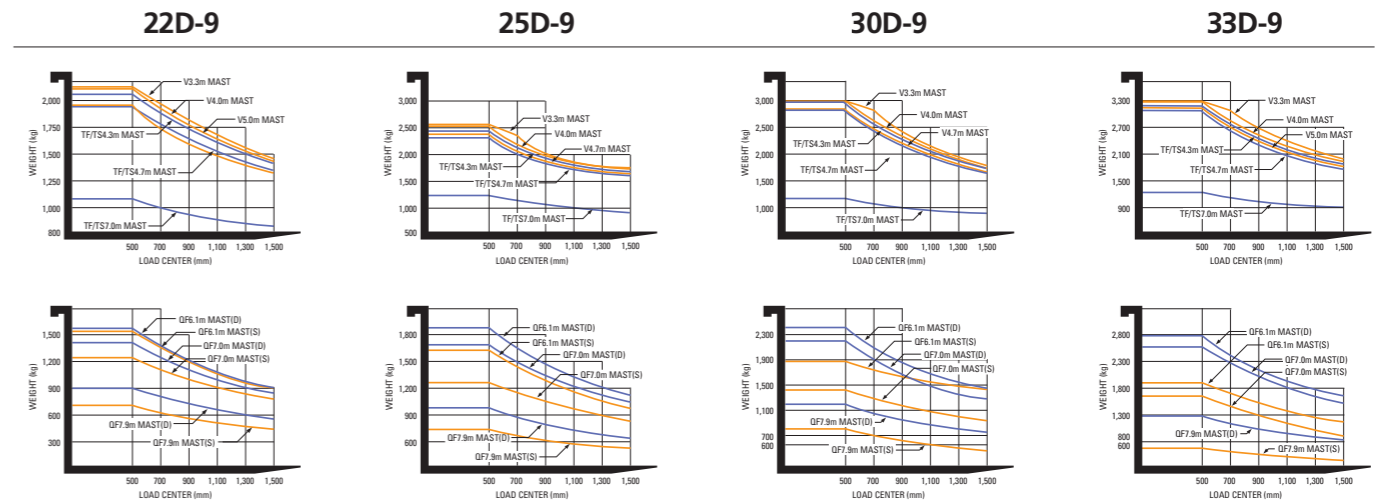


Specification

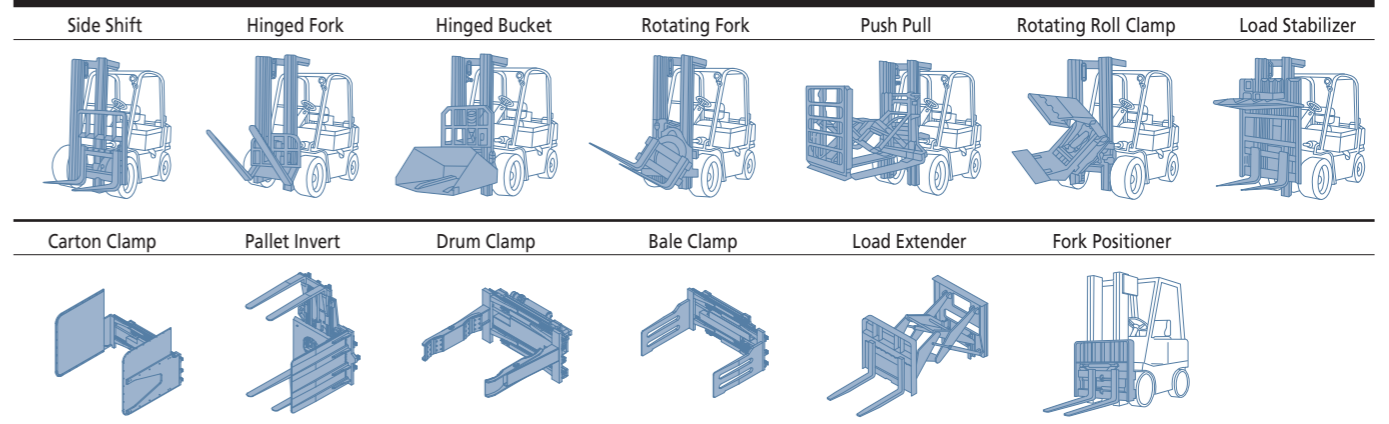
Identification					
1.1	Manufacturer	Hyundai	Hyundai	Hyundai	Hyundai
1.2	Manufacturer's model designation	22D-9	25D-9	30D-9	33D-9
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas, manual	DIESEL	DIESEL	DIESEL	DIESEL
1.4	Type of operation: hand, pedestrian, standing, seated, order-picker	seated	seated	seated	seated
1.5	Load capacity / Rated load	kg 2200	kg 2500	kg 3000	kg 3300
1.6	Load center distance	c mm 500	c mm 500	c mm 500	c mm 500
1.8	Load distance, center of drive axle to fork	x mm 468	x mm 468	x mm 468	x mm 468
1.9	Wheelbase	y mm 1650	y mm 1650	y mm 1700	y mm 1700
Weights					
2.1	Service weight	kg 3573	kg 3888	kg 4282	kg 4561
2.2	Axle loading, loaded front / rear	kg 5162 / 612	kg 5567 / 822	kg 6375 / 906	kg 6807 / 1054
2.3	Axle loading, unloaded front / rear	kg 1671 / 1902	kg 1600 / 2288	kg 1667 / 2615	kg 1628 / 2933
Wheels, Chassis					
3.1	Tires ; Pneumatic(P), Solid(S), Non-marking(N)	P	P	P	P
3.2	Tires size, front	7.00 - 12, 14PR	7.00 - 12, 14PR	28X9 - 15, 14PR	28X9 - 15, 14PR
3.3	Tires size, rear	6.50 - 10, 14PR	6.50 - 10, 14PR	6.50 - 10, 14PR	6.50 - 10, 14PR
3.4	Number of wheels front / rear (x=driven wheels)	2x / 2	2x / 2	2x / 2	2x / 2
3.5	Track width, front	mm 999	mm 999	mm 1005	mm 1005
3.6	Track width, rear	mm 980	mm 980	mm 980	mm 980
Basic Dimensions					
4.1	Mast / fork carriage tilt forward / backward (α / β)	degrees 6 / 10	degrees 6 / 10	degrees 6 / 10	degrees 6 / 10
4.2	Lowered mast height	h1 (mm) 2175	h1 (mm) 2175	h1 (mm) 2190	h1 (mm) 2260
4.3	Free lift	h2 (mm) 155	h2 (mm) 155	h2 (mm) 155	h2 (mm) 155
4.4	Lift height	h3 (mm) 3305	h3 (mm) 3305	h3 (mm) 3305	h3 (mm) 3305
4.5	Extended mast height	h4 (mm) 4485	h4 (mm) 4485	h4 (mm) 4485	h4 (mm) 4485
4.7	Overhead guard height (cabin)	h5 (mm) 2160 (2170)	h5 (mm) 2160 (2170)	h5 (mm) 2180 (2190)	h5 (mm) 2180 (2190)
4.8	Seat height / standing height rel. to SIP	h7 (mm) 1187	h7 (mm) 1187	h7 (mm) 1212	h7 (mm) 1212
4.12	Coupling height	h10 (mm) 295	h10 (mm) 295	h10 (mm) 320	h10 (mm) 320
4.19	Overall length	l1 (mm) 3627	l1 (mm) 3657	l1 (mm) 3726	l1 (mm) 3782
4.20	Length to face of forks	l2 (mm) 2577	l2 (mm) 2607	l2 (mm) 2676	l2 (mm) 2732
4.21	Overall width	b1 (mm) 1200	b1 (mm) 1200	b1 (mm) 1228	b1 (mm) 1228
4.22	Fork dimensions(hook type)	l / e / s (mm) 1050 x 100 x 45	l / e / s (mm) 1050 x 100 x 45	l / e / s (mm) 1050 x 122 x 45	l / e / s (mm) 1050 x 122 x 45
4.23	Fork carriage ISO 2328, class / type A,B	2A	2A	3A	3A
4.24	Fork-carriage width	b3 (mm) 1102	b3 (mm) 1102	b3 (mm) 1102	b3 (mm) 1102
4.31	Ground clearance, loaded, under mast	m1 (mm) 130	m1 (mm) 130	m1 (mm) 145	m1 (mm) 145
4.32	Ground clearance, centre of wheelbase	m2 (mm) 157	m2 (mm) 157	m2 (mm) 181	m2 (mm) 181
4.33	Aisle width for pallets 1,000x1,200 crossways (LxW)	Ast (mm) 3954	Ast (mm) 4010	Ast (mm) 4081	Ast (mm) 4131
4.34	Aisle width for pallets 800x1,200 lengthways (WxL)	Ast (mm) 4154	Ast (mm) 4210	Ast (mm) 4281	Ast (mm) 4331
4.35	Turning radius	Wa (mm) 2286	Wa (mm) 2342	Wa (mm) 2413	Wa (mm) 2463
4.36	Smallest pivot point distance	b13 (mm) 714	b13 (mm) 714	b13 (mm) 731	b13 (mm) 731
Performance Data					
5.1	Travel speed, unloaded	km/h 18.5	km/h 18.5	km/h 20.0	km/h 19.9
5.2	Lift speed, loaded/ unloaded	mm/s 570 / 640	mm/s 560 / 640	mm/s 470 / 530	mm/s 460 / 530
5.3	Lowering speed, loaded/unloaded	mm/s 500 / 450	mm/s 500 / 450	mm/s 500 / 450	mm/s 500 / 450
5.5	Drawbar pull, loaded	kg 2680	kg 2686	kg 2440	kg 2443
5.7	Gradient performance, loaded	% 45.8	% 40.7	% 31.4	% 29.0
5.9	Acceleration time, loaded/ unloaded(10m)	sec -	sec -	sec -	sec -
5.10	Service brake	FOOT	FOOT	FOOT	FOOT
Engine					
6.1	Engine manufacturer / type	kubota v3307	kubota v3307	kubota v3307	kubota v3307
6.2	Engine power acc. to ISO 1585	kW/rpm 50(68ps) / 2300	kW/rpm 50(68ps) / 2300	kW/rpm 50(68ps) / 2300	kW/rpm 50(68ps) / 2300
6.3	Maximum Torque	kgf.m/rpm 23.3 / 1500	kgf.m/rpm 23.3 / 1500	kgf.m/rpm 23.3 / 1500	kgf.m/rpm 23.3 / 1500
6.4	No. of cylinder / cubic capacity	EA/cc 4 / 3331	EA/cc 4 / 3331	EA/cc 4 / 3331	EA/cc 4 / 3331
6.5	Fuel consumption acc. To VDI cycle	ℓ/h 3.1	ℓ/h 3.2	ℓ/h 3.4	ℓ/h 3.6
Other Details					
8.1	Type of drive control	PowerShift	PowerShift	PowerShift	PowerShift
8.2	Operating pressure, system / attach	bar 182 / 162	bar 182 / 162	bar 196 / 162	bar 196 / 162
8.3	Oil volume (hydraulic)	l 36	l 36	l 38	l 38
8.4	Sound pressure level (at driver's ear according to DIN 12053)	dB(A) 80	dB(A) 80	dB(A) 80	dB(A) 80
8.5	Trailer coupling, type DIN	PIN	PIN	PIN	PIN

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Load Capacity



Various Attachments



Optional Items

- Fork(mm)
 - 22/25D-9 : 900, 1000, 1050(STD), 1200, 1350, 1500, 1650, 1800
 - 30/33D-9 : 900, 1050(STD), 1150, 1200, 1650, 1800, 1970, 2120, 2300, 2400
- Overshoe(mm)
 - 22/25D-9 : 1300, 1500, 1700, 1800
 - 30/33D-9 : 1500, 1700, 1800
- Integral Sideshift, Fork positioner, Sideshift
- Tire : Pneumatic(STD)/ Solid(superelastic) / Non-marking / Front double tire
- M.C.V : 4-Spool
- Seat : Armrest, Heat, Backrest Ext, Buckle SW
- Load Indicator
- Auto Fork Leveling System
- Rear View Camera
- Cabin (Heater & Air Conditioner)
- Hydraulic Pump Temperature / Pressure Monitor
- Battery Disconnect Switch (Master Switch)
- Beacon Lamp(Bulb or LED) (Amber, Red, Blue)
- Rear work Lamp
- F-N-R & Horn Knob switch
- Rear Horn