

# 15/18/20D-9

Diesel Counterbalance Trucks

MOVING YOU FURTHER

HYUNDAI HEAVY INDUSTRIES



■ Some of the photos may include optional equipment.

 **HYUNDAI**  
HEAVY INDUSTRIES

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# 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.

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## 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 (Optional)
- Easy serviceability
- Max speed limit function
- HAC(Hillstart-Assistance Control)
- Password starting system
- Auto fork leveling system (Optional)
- Load weight indicator (Optional)



\*Some of the photos may include optional equipment.

# High Efficiency & Optimal Performance



\*Some of the photos may include optional equipment.



## DAEDONG 3F183T Engine 37.5kW/2,300rpm

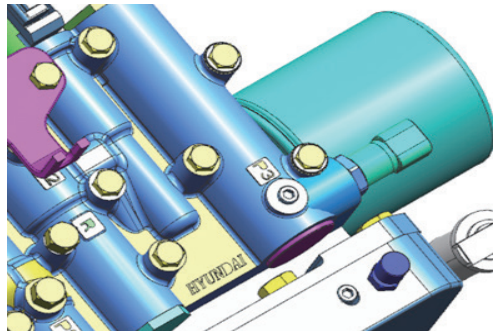
### High Power Engine - DAEDONG 3F183T

DAEDONG 3F183T engine ensures incomparable performance, durability and excellent fuel efficiency.

This engine meets EPA Tier IV Final and EU stage III B emission regulations.

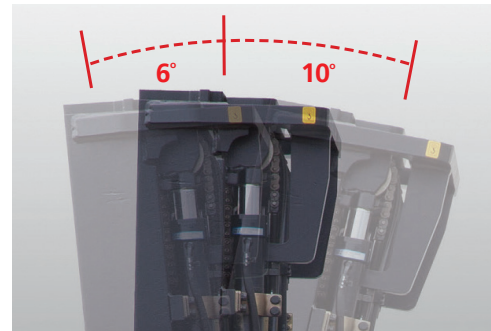
Powerful engine and high technology systems provide you with enhanced performance and highest productivity.

## 15/18/20D-9



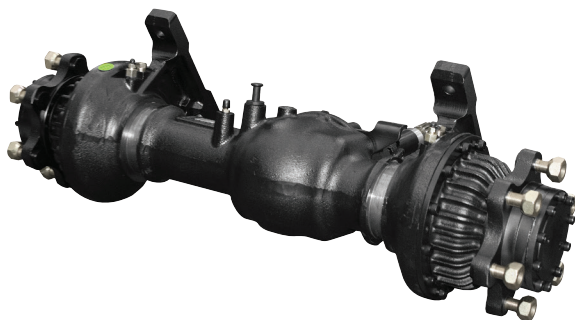
### Clutch Protection System

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



### Mast Tilt Angle

Utilizing the standard mast tilting angle of 6 degrees forward and 10 degrees backward, the operator can safely and rapidly perform loading and unloading jobs.



### 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.



### Travel Speed (MAX)

Model	km / h
15D-9	18.3
18D-9	18.3
20D-9	18.3

### Gradeability (MAX)

Model	%
15D-9	42.3
18D-9	37.8
20D-9	35.1

### 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



## 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)
- \*Movable Armrests

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

# 15/18/20D-9

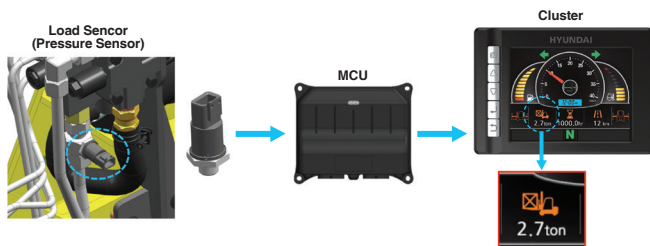
## Advanced LCD Monitor

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**



## **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.



## **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.



## **Low Entrance Height**

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



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

## 15/18/20D-9



### 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.



### 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



## Large Engine Hood

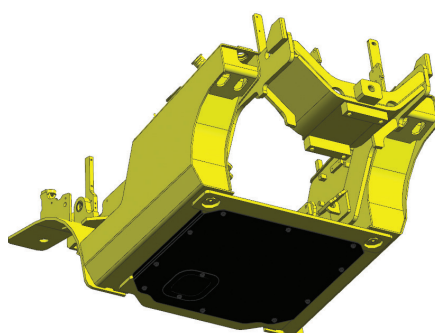
Highly accessible engine compartment assures fast and efficient maintenance.  
The enlarged air cleaner(8") has extended service time of engine.

\*Some of the photos may include optional equipment.



## Waterproof & Dustproof Cover

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



## Under Cover (Optional)

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

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

## 15/18/20D-9



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

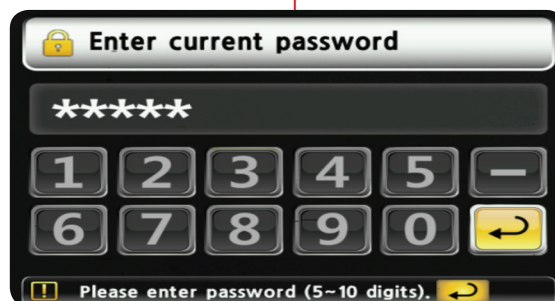


**Emergency Switch (Optional)**

\*Some of the photos may include optional equipment.



**Stylish and convenient switch**



**Password Starting System (Anti-theft system)**

# New 9 Series

## Mast Specification (15D-9)

Mast Type		Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle	Load Capacity without side shift		Load Capacity with side shift		Truck Weight (Unloaded)	
						With Load Backrest		Without Load Backrest			500mm LC		500mm LC			
		in	mm	in	mm	in	mm	in	mm	deg	lb	kg	lb	kg	lb	kg
2-Stage Limited free lift	V250	99.4	2525	69.1	1755	1.4	35	1.4	35	6/10	3000	1500	2900	1425	6070	2759
	V270	107.3	2725	73.0	1855					6/10	3000	1500	2900	1425	6098	2772
	V300	119.1	3025	78.9	2005					6/10	3000	1500	2900	1425	6142	2792
	V330	130.9	3325	84.8	2155					6/10	3000	1500	2900	1425	6184	2811
	V350	138.8	3525	88.8	2255					6/10	3000	1500	2900	1425	6215	2825
	V370	146.7	3725	92.7	2355					6/10	3000	1500	2900	1425	6244	2838
	V400	158.5	4025	98.6	2505					6/10	3000	1500	2900	1425	6296	2862
	V450	178.1	4525	112.4	2855					6/6	2900	1425	2770	1350	6468	2940
	V500	197.8	5025	122.2	3105					6/6	2750	1350	2640	1275	6545	2975
V550	217.5	5525	132.1	3355	6/5	2150	1050	2040	1000	6611	3005					
2-Stage full free lift	VF300	119.1	3025	78.9	2005	39.6	1007	60.6	1539	6/6	3000	1500	2900	1425	6244	2838
	VF330	130.9	3325	84.8	2155	45.6	1157	66.5	1689	6/6	3000	1500	2900	1425	6318	2872
	VF350	138.8	3525	88.8	2255	49.5	1257	70.4	1789	6/6	3000	1500	2900	1425	6349	2886
3-Stage full free lift	TF/TS370	147.0	3735	71.1	1805	31.8	807	51.0	1295	6/6	3000	1500	2900	1425	6382	2901
	TF/TS400	158.9	4035	75.0	1905	35.7	907	54.9	1395	6/6	2990	1475	2880	1400	6424	2920
	TF/TS430	170.7	4335	78.9	2005	39.6	1007	58.9	1495	6/6	2900	1425	2790	1350	6466	2939
	TF/TS450	178.5	4535	82.9	2105	43.6	1107	66.7	1695	6/6	2830	1400	2720	1325	6512	2960
	TF/TS470	186.4	4735	84.8	2155	45.6	1157	64.8	1645	6/6	2790	1375	2600	1300	6536	2971
	TF/TS500	198.2	5035	88.8	2255	49.5	1257	68.7	1745	6/6	2750	1350	2610	1275	6576	2989
	TF/TS550	217.9	5535	96.7	2455	57.4	1457	76.6	1945	6/5	2310	1125	2220	1075	6666	3030
	TF/TS600	237.6	6035	104.5	2655	65.2	1657	84.4	2145	6/5	1650	800	1580	750	6765	3075
	TF/TS650	257.3	6535	112.4	2855	73.1	1857	92.3	2345	3/3	1250	600	1180	550	6866	3121
TF/TS700	277.0	7035	120.3	3055	81.0	2057	100.2	2545	3/3	830	400	770	350	6970	3168	

## Mast Specification (18D-9)

Mast Type		Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle	Load Capacity without side shift		Load Capacity with side shift		Truck Weight (Unloaded)	
						With Load Backrest		Without Load Backrest			500mm LC		500mm LC			
		in	mm	in	mm	in	mm	in	mm	deg	lb	kg	lb	kg	lb	kg
2-Stage Limited free lift	V250	99.4	2525	69.1	1755	1.4	35	1.4	35	6/10	3500	1800	3390	1675	6422	2919
	V270	107.3	2725	73.0	1855					6/10	3500	1800	3390	1675	6448	2931
	V300	119.1	3025	78.9	2005					6/10	3500	1800	3390	1675	6492	2951
	V330	130.9	3325	84.8	2155					6/10	3500	1800	3390	1675	6536	2971
	V350	138.8	3525	88.8	2255					6/10	3500	1770	3390	1675	6565	2984
	V370	146.7	3725	92.7	2355					6/10	3500	1750	3390	1675	6593	2997
	V400	158.5	4025	98.6	2505					6/10	3450	1700	3320	1625	6646	3021
	V450	178.1	4525	112.4	2855					6/6	3300	1625	3170	1550	6818	3099
	V500	197.8	5025	122.2	3105					6/6	2860	1400	2750	1325	6895	3134
V550	217.5	5525	132.1	3355	6/5	2060	1050	1960	1000	6963	3165					
2-Stage full free lift	VF300	119.1	3025	78.9	2005	39.6	1007	60.6	1539	6/6	3500	1800	3390	1675	6593	2997
	VF330	130.9	3325	84.8	2155	45.6	1157	66.5	1689	6/6	3500	1750	3390	1675	6668	3031
	VF350	138.8	3525	88.8	2255	49.5	1257	70.4	1789	6/6	3500	1750	3390	1675	6699	3045
3-Stage full free lift	TF/TS370	147.0	3735	71.1	1805	31.8	807	51.0	1295	6/6	3500	1725	3370	1650	6732	3060
	TF/TS400	158.9	4035	75.0	1905	35.7	907	54.9	1395	6/6	3410	1675	3280	1600	6774	3079
	TF/TS430	170.7	4335	78.9	2005	39.6	1007	58.9	1495	6/6	3320	1625	3190	1500	6816	3098
	TF/TS450	178.5	4535	82.9	2105	43.6	1107	66.7	1695	6/6	3260	1600	3120	1525	6864	3120
	TF/TS470	186.4	4735	84.8	2155	45.6	1157	64.8	1645	6/6	3060	1500	2950	1425	6886	3130
	TF/TS500	198.2	5035	88.8	2255	49.5	1257	68.7	1745	6/6	2970	1450	2860	1375	6926	3148
	TF/TS550	217.9	5535	96.7	2455	57.4	1457	76.6	1945	6/5	2380	1150	2310	1100	7016	3189
	TF/TS600	237.6	6035	104.5	2655	65.2	1657	84.4	2145	6/5	1650	800	1580	750	7115	3234
	TF/TS650	257.3	6535	112.4	2855	73.1	1857	92.3	2345	3/3	1250	600	1190	550	7216	3280
TF/TS700	277.0	7035	120.3	3055	81.0	2057	100.2	2545	3/3	950	450	880	400	7319	3327	

## Mast Specification (20D-9)

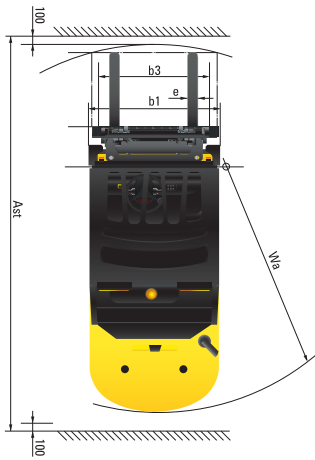
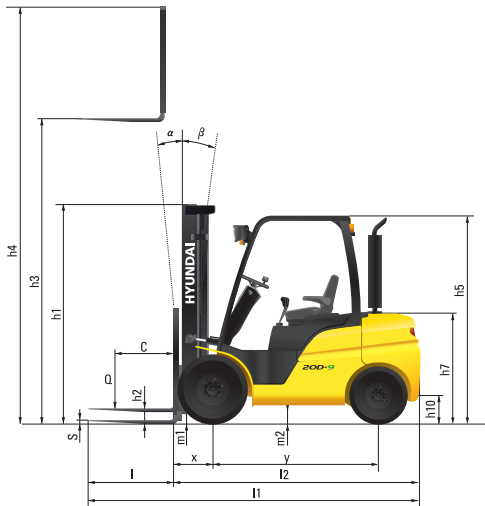
Mast Type	Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle	Load Capacity without side shift		Load Capacity with side shift		Truck Weight (Unloaded)		
	in	mm	in	mm	With Load Backrest		Without Load Backrest			500mm LC		500mm LC		lb	kg	
					in	mm	in	mm	deg	lb	kg	lb	kg	lb	kg	
2- Stage Limited free lift	V250	99.6	2530	69.1	1755	1.6	40	1.6	40	6/10	4000	2000	3870	1900	6730	3059
	V270	107.5	2730	73.0	1855					6/10	4000	2000	3870	1900	6758	3072
	V300	119.3	3030	78.9	2005					6/10	4000	2000	3870	1900	6802	3092
	V330	131.1	3330	84.8	2155					6/10	4000	2000	3870	1900	6844	3111
	V350	139.0	3530	88.8	2255					6/10	4000	2000	3870	1900	6875	3125
	V370	146.9	3730	92.7	2355					6/10	3960	1950	3810	1875	6904	3138
	V400	158.7	4030	98.6	2505					6/10	3370	1650	3230	1575	6959	3162
	V450	178.3	4530	112.4	2855					6/6	3320	1625	3190	1550	7128	3240
	V500	198.0	5030	122.2	3105					6/6	2880	1400	2750	1325	7205	3275
	V550	217.7	5530	132.1	3355					6/5	2180	1050	2090	1000	7273	3306
2- Stage full free lift	VF300	119.3	3030	78.9	2005	39.8	1012	60.8	1544	6/6	4000	2000	3870	1900	6904	3138
	VF330	131.1	3330	84.8	2155	45.7	1162	66.7	1694	6/6	4000	1975	3830	1875	6978	3172
	VF350	139.0	3530	88.8	2255	49.7	1262	70.6	1794	6/6	3960	1950	3780	1850	7009	3186
3- Stage full free lift	TF/TS370	147.2	3740	71.1	1805	32.0	812	51.2	1300	6/6	3850	1900	3720	1825	7042	3201
	TF/TS400	159.1	4040	75.0	1905	35.9	912	55.1	1400	6/6	3760	1850	3630	1775	7084	3220
	TF/TS430	170.9	4340	78.9	2005	39.8	1012	59.1	1500	6/6	3670	1800	3540	1725	7126	3239
	TF/TS450	178.7	4540	82.9	2105	43.8	1112	63.0	1600	6/6	3590	1750	3450	1675	7172	3260
	TF/TS470	186.6	4740	84.8	2155	45.7	1162	65.0	1650	6/6	3370	1650	3260	1575	7196	3271
	TF/TS500	198.4	5040	88.8	2255	49.7	1262	68.9	1750	6/6	2990	1450	2880	1400	7236	3289
	TF/TS550	218.1	5540	96.7	2455	57.6	1462	76.8	1950	6/5	2380	1150	2290	1100	7326	3330
	TF/TS600	237.8	6040	104.5	2655	65.4	1662	84.6	2150	6/5	1670	800	1580	750	7425	3375
	TF/TS650	257.5	6540	112.4	2855	73.3	1862	92.5	2350	3/3	1300	625	1230	575	7526	3421
TF/TS700	277.2	7040	120.3	3055	81.2	2062	100.4	2550	3/3	950	450	880	400	7630	3468	

## Optional Items

- Fork(mm)  
15/18D-9 : 750, 850, 900(STD), 1050, 1200, 1350, 1500  
20D-9 : 900, 950, 1000(STD), 1050, 1150, 1200, 1350, 1500, 1600
- Overshoe(mm)  
1300, 1500, 1700
- Sideshift, Integral Sideshift
- Tire : Pneumatic(STD) / Solid / Non-marking
- M.C.V : 2-Spool, 3-Spool(STD), 4-Spool
- Under cover
- Load Indicator
- Rear Work Lamp
- Beacon Lamp LED (Blue, Red, Amber)
- Auto Fork Leveling System
- Seat : Armrest, Heat, Backrest Ext, Buckle SW
- Hydraulic Pump Temperature / Pressure Monitor
- Battery Disconnect Switch (Master Switch)
- OPSS (Travel, Mast)
- Emergency Switch
- Fire Extinguisher
- Pre Cleaner

# New 9 Series

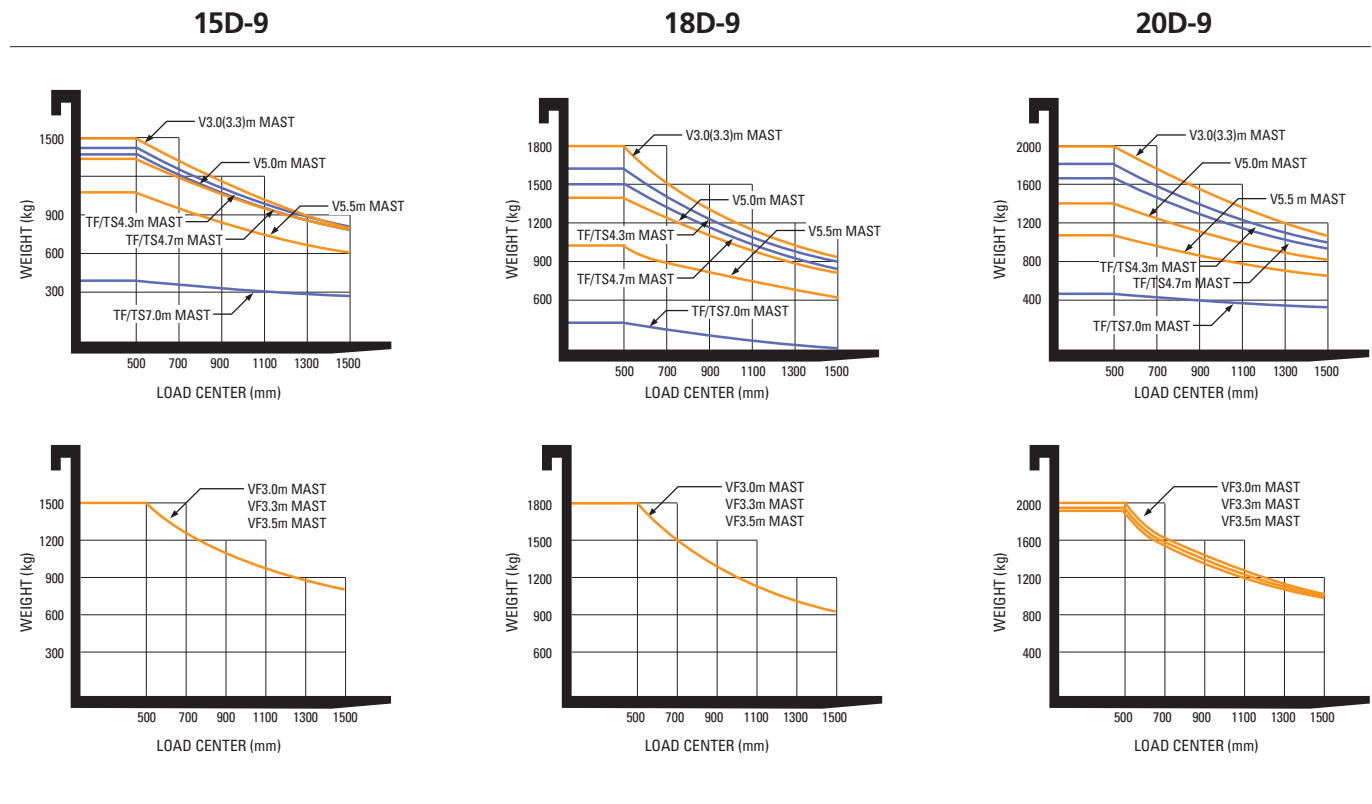
## Dimension



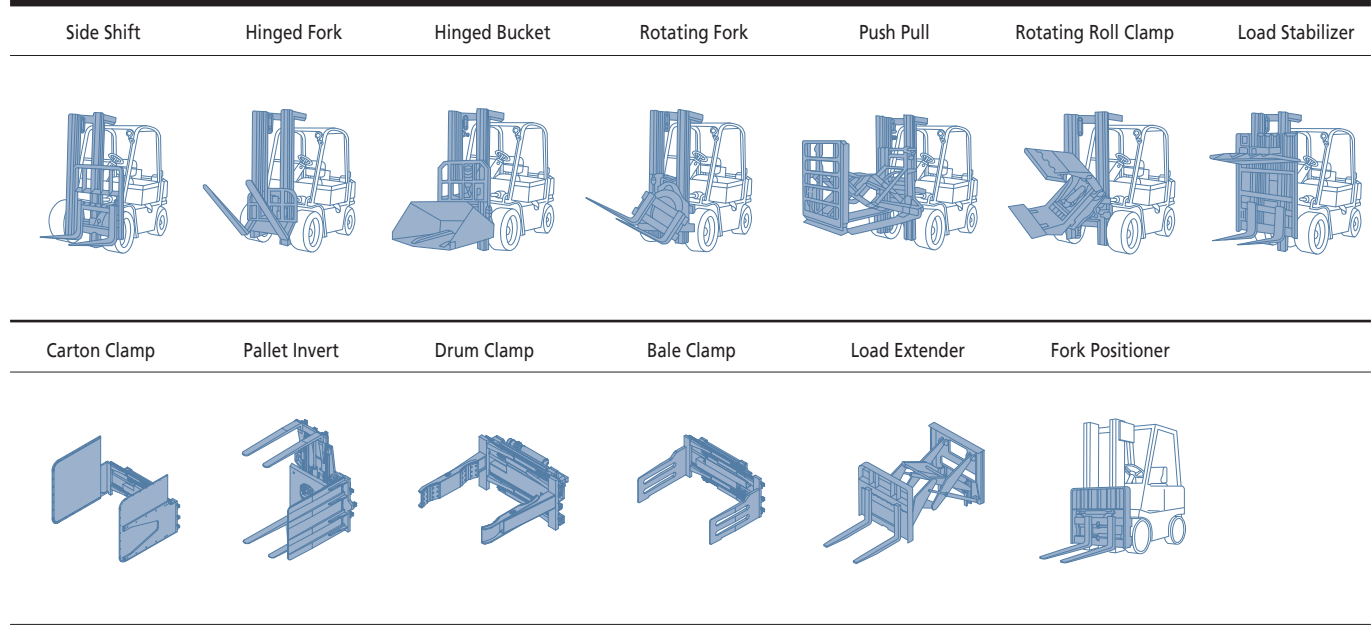
## Specification

Identification					
1.1	Manufacturer		Hyundai	Hyundai	Hyundai
1.2	Manufacturer's model designation		15D-9	18D-9	20D-9
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas, manual		DIESEL	DIESEL	DIESEL
1.4	Type of operation: hand, pedestrian, standing, seated, order-picker		Seated	Seated	Seated
1.5	Load capacity / Rated load	kg	1,500	1,800	2,000
1.6	Load center distance	c mm	500	500	500
1.8	Load distance, center of drive axle to fork	x mm	393	393	398
1.9	Wheelbase	y mm	1,410	1,410	1,410
Weights					
2.1	Service weight	kg	2811	2971	3111
2.2	Axle loading, loaded front / rear	kg	3,678 / 633	4,046 / 675	4,421 / 690
2.3	Axle loading, unloaded front / rear	kg	1,228 / 1,583	1,187 / 1,784	1,147 / 1,964
Wheels, Chassis					
3.1	Tires ; Pneumatic(P), Solid(S), Non-marking(N)		P	P	P
3.2	Tires size, front		6.50-10-14PR	6.50-10-14PR	6.50-10-14PR
3.3	Tires size, rear		5.00-8-8PR	5.00-8-8PR	5.00-8-8PR
3.5	Number of wheels front / rear (x=driven wheels)		2 X / 2	2 X / 2	2 X / 2
3.6	Track width, front	mm	890	890	890
3.7	Track width, rear	mm	910	910	910
Basic Dimensions					
4.1	Mast / fork carriage tilt forward / backward ( $\alpha / \beta$ )	degrees	6 / 10	6 / 10	6 / 10
4.2	Lowered mast height	h1 (mm)	2,155	2,155	2,155
4.3	Free lift	h2 (mm)	35	35	40
4.4	Lift height	h3 (mm)	3,330	3,330	3,335
4.5	Extended mast height	h4 (mm)	4,320	4,320	4,320
4.7	Overhead guard height (cabin)	h5 (mm)	2,110	2,110	2,110
4.8	Seat height / standing height rel. to SIP	h7 (mm)	1,152	1,152	1,152
4.12	Coupling height	h10 (mm)	260	260	260
4.19	Overall length	l1 (mm)	3,124	3,154	3,189
4.20	Length to face of forks	l2 (mm)	2,224	2,254	2,289
4.21	Overall width	b1 (mm)	1,070	1,070	1,070
4.22	Fork dimensions(hook type)	l / e / s (mm)	900 x 100 x 35	900 x 100 x 35	900 x 100 x 40
4.23	Fork carriage ISO 2328, class / type A,B		2A	2A	2A
4.24	Fork-carriage width	b3 (mm)	1,006	1,006	1,006
4.31	Ground clearance, loaded, under mast	m1(mm)	120	120	120
4.32	Ground clearance, centre of wheelbase	m2(mm)	109	107	105
4.33	Aisle width for pallets 1,000x1,200 crossways (LxW)	Ast(mm)	3,599	3,624	3,664
4.34	Aisle width for pallets 800x1,200 lengthways (WxL)	Ast(mm)	3,799	3,824	3,864
4.35	Turning radius	Wa(mm)	2,005	2,030	2,065
Performance Data					
5.1	Travel speed, unloaded	km/h	18.3	18.3	18.3
5.2	Lift speed, loaded/ unloaded	mm/s	600 / 630	600 / 630	600 / 630
5.3	Lowering speed, loaded/unloaded	mm/s	500 / 450	500 / 450	500 / 450
5.5	Drawbar pull, loaded	kg	1,882	1,888	1,896
5.7	Gradient performance, loaded	%	42.3	37.8	35.1
5.10	Service brake		FOOT / WET	FOOT / WET	FOOT / WET
Engine					
6.1	Engine manufacturer / type		Daedong / 3F183T	Daedong / 3F183T	Daedong / 3F183T
6.2	Engine power acc. to ISO 1585	kw/rpm	37.5 / 2,300	37.5 / 2,300	37.5 / 2,300
6.3	Maximum Torque	N.m/rpm	16.6 / 1,700	16.6 / 1,700	16.6 / 1,700
6.4	No. of cylinder / cubic capacity	EA/cc	3 / 1,826	3 / 1,826	3 / 1,826
6.5	Fuel Tank Volume	ℓ	45	45	45
Other Details					
8.2	Operating pressure, system / attach	bar	186 / 147	186 / 147	186 / 147

## Load Capacity



## Various Attachments



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**HYUNDAI | FORKLIFT**  
**HEAVY INDUSTRIES**

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