

# 22/25/30/33D-9(E)

Diesel Counterbalance Trucks

MOVING YOU FURTHER

HYUNDAI HEAVY INDUSTRIES



 **HYUNDAI**

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# Your satisfaction is **our priority!**

Hyundai introduces the **9-series** forklifts.

The newly designed counterbalance trucks provide optimal safety, optimised ergonomics and offer a benchmark for serviceability.

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## **New Diesel Forklift with Proven Quality and Advanced Technology**

- **Wide range of safety features**
- **Maximum performance**
- **Optimised Ergonomics**
- **Minimised service down time**



# Safety features



## Safety lamps & rear reflectors

Halogen headlights and rear LED combination lights offers the driver visibility in all circumstances. Rear reflectors mounted on the counterweight enhance machine visibility and safe operation. Full LED available as option



## 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.

**Load weight indication**  
(Optional)

**Machine pitch indication**  
(Warning-Red)

**Signal / Warning light**

**Gear (F / N / R)**

**Speedometer**

**Mast tilting degree**  
(Alarm-Red)

**Machine roll indication**  
(Warning-Red)

## Advanced LCD Monitor

The LCD colour monitor clearly informs the driver. Aside general operational information, safety warnings and speed limits are immediately shown to the driver

The improved safety features provide the operator safe and efficient work.

## 22/25/30/33D-9 22/25/30/33D-9E



### Rear View Camera (option)

The view from the camera will automatically be on the display when the reverse direction is selected



### Speed limiter \*

A programmable speed limiter is standard delivered on the truck. The maximum speed can be programmed through the display by a service technician.

\* Not on 22-25-30-33D-9E series



### Engine start limit

To avoid use of the truck by non qualified drivers and to protect the truck from theft. A personal activation / entrance code is delivered

### OPSS (Operator Presence Sensing System)

When the operator is not in the seat all mast and drive movements are impossible.



### Standard: HAC (Hill assist control) \*

When stopping on a ramp the hill launch system will avoid the machine rolling backwards when driving of.

\* Not on 22-25-30-33D-9E series



### Fuel lock latch

To avoid fuel theft a lock is mounted on the fuel latch.



### Lockable fuel cap (option)

Additional fuel theft protection is possible by a lockable fuel cap.

# Ergonomic & Productivity features



## Spacious Operator Cabin

The newly designed cabin provides wide visibility and spacious environment, ensuring all day comfort for the operator. The ergonomically designed driver's space with the LCD colour monitor provides clear information and comfort to the operator thanks to clear information and good safety indications for a trustworthy operation.



## Optimized pedal position

The revised position of the pedals offer smoother driving while increasing serviceability and reducing noise production.



## Low entrance height

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



## Adjustable steering Wheel

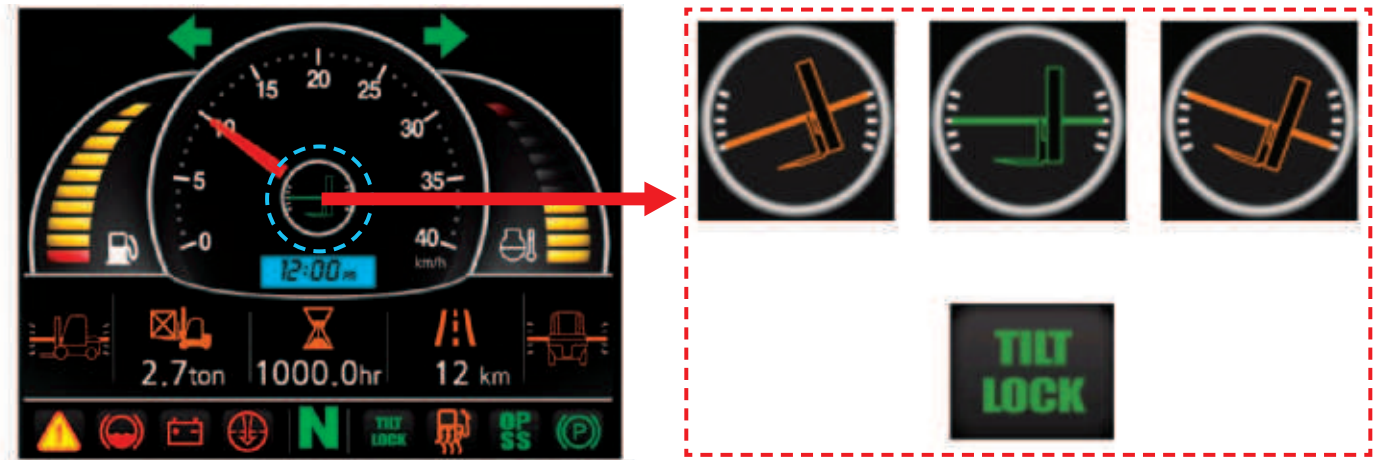
To achieve a comfortable drive position, the angle of the steering column can easily be adjusted.



## Comfortable Grammer Seat

Great comfort is offered to the driver by a suspended seat with weight adjuster.

# 22/25/30/33D-9 22/25/30/33D-9E



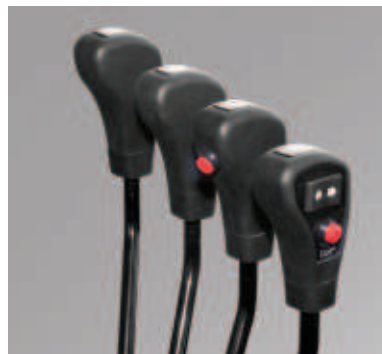
## Auto Fork Leveling System

With the auto tilt button pushed and tilting forward or backwards, the mast will stop in the upright position.



## Fingertip system (Option)

The newly designed fingertip system combines the ease of the mini-levers with the directional switch mounted on the console.



## Functions controlled on the levers

With the directional switch mounted on the lift lever and the tilt lock switch on the second lever, the driver has control over mast and drive functions without taking his hand of the steering wheel. This offers an improvement in Productivity, ergonomics and safety.

# Fast and Easy Maintenance



## Large Engine Hood

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

Maintenance Management				
Item	Interval	Elapse	Count	Alarm
Axle Planetary Ge...	100	2	0	<input checked="" type="checkbox"/>
Transmission Oil	100	2	0	<input checked="" type="checkbox"/>
Transmission Oil F...	100	2	0	<input checked="" type="checkbox"/>
Hydraulic Tank Ai...	250	2	0	<input checked="" type="checkbox"/>
Air Cleaner Comp...	450	2	0	<input checked="" type="checkbox"/>
Engine Oil Filter	500	2	0	<input checked="" type="checkbox"/>

## Maintenance Management display

Fast and easy access to maintenance information via the display ensures optimised up-time. When service is needed the driver receives a clear warning for quick interventions.



## Clutch Protection System

The clutch protection system prevents excessive use of inching.

## DCSR (Direction change shock relieve)

When inverting direction the drive line is protected by this system. Only at low speed the direction change is allowed.



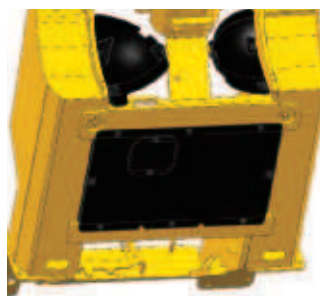
An ideal arrangement of components ensures easy access and convenience for maintenance.

## **22/25/30/33D-9** **22/25/30/33D-9E**



### **Rear Tire Cover**

The engine and cooling systems are protected from clogging by rear tire covers.



### **Under Cover (Optional)**

To protect the engine and cooling system in a harsh and dusty environment a protective plate is available.



## **22/25/30/33D-9** **KUBOTA V3307 Engine** **50 kW / 2,300 rpm**

### **High Power Engine - KUBOTA V3307**

Due to the advanced engine systems on the Kubota V3307, ultra low emissions Stage IIIB) are achieved without the use of a particle filter. Because only a DOC (Diesel oxidation catalyst) is used no downtime is created by the after treatment device. The Kubota engine avoids particle filter regeneration and avoids any down-time.



## **22/25/30/33D-9E** **YANMAR 4TNE92 Engine** **33.4 kW / 2,450 rpm**

### **High Power Engine - YANMAR 4TNE92**

Market approved quality of YANMAR 4TNE92 engine ensures incomparable performance, durability and excellent fuel efficiency. This engine meets EU stage III A emission regulations.

# New 9 Series

## Mast Specification (22D-9 & 22D-9E)

Mast Type	Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle (deg)	Load Capacity without side shift				Load Capacity with side shift				
	inch	mm	inch	mm	With Load Backrest		Without Load Backrest			Single Tire		Double Tire		Single Tire		Double Tire		
					inch	mm	inch	mm		24 in LC	500 mm LC	24 in LC	500 mm LC	24 in LC	500 mm LC	24 in LC	500 mm LC	
2-Stage Limited free lift	V300	118.3	3005	79.7	2025	4.5	155	4.5	155	6/10	4400	2200	4400	2200	4400	2200	4400	2200
	*V330	130.1	3305	85.6	2175	4.5	155	4.5	155	6/10	4400	2200	4400	2200	4400	2150	4400	2200
	V350	138.0	3505	89.6	2275	4.5	155	4.5	155	6/10	4400	2200	4400	2200	4400	2080	4400	2200
	V370	145.9	3705	95.5	2425	4.5	155	4.5	155	6/10	4400	2190	4400	2200	4280	2070	4400	2150
	V400	157.7	4005	101.4	2575	4.5	155	4.5	155	6/10	4390	2140	4400	2200	4170	2020	4280	2080
	V430	169.5	4305	107.3	2725	4.5	155	4.5	155	6/6	4280	2080	4390	2140	4060	1960	4170	2020
	V450	177.4	4505	113.2	2875	4.5	155	4.5	155	6/6	4210	2050	4320	2110	3990	1930	4110	1990
	V470	185.2	4705	117.1	2975	4.5	155	4.5	155	6/6	4140	2010	4250	2070	3920	1890	4030	1950
2-Stage full free lift	V500	197.0	5005	123.0	3125	4.5	155	4.5	155	6/6	4080	1980	4190	2030	3860	1860	3970	1910
	VF295	117.2	2976	79.7	2025	33.3	845	54.2	1377	6/6	4400	2200	4400	2200	4400	2200	4400	2200
	VF325	129.0	3276	85.1	2175	38.7	995	60.2	1527	6/6	4400	2200	4400	2200	4400	2150	4400	2200
VF345	136.9	3476	89.6	2275	43.1	1095	64.1	1627	6/6	4400	2200	4400	2200	4400	2080	4400	2150	
3-Stage full free lift	TF370/TS370	145.9	3705	71.9	1825	25.4	645	46.3	1177	6/6	4400	2160	4400	2200	4400	2040	4400	2080
	TF400/TS400	157.7	4005	75.8	1925	29.3	745	50.3	1277	6/6	4340	2110	4400	2160	4120	1990	4270	2040
	TF430/TS430	169.5	4305	79.7	2025	33.3	845	54.2	1377	6/6	4250	2060	4370	2110	4030	1940	4150	1990
	TF450/TS450	177.4	4505	83.7	2125	37.2	945	58.1	1477	6/6	4210	2030	4280	2080	3990	1910	4060	1960
	TF470/TS470	185.2	4705	85.6	2175	39.2	995	60.1	1527	6/6	4120	1990	4230	2050	3900	1870	4010	1930
	TF500/TS500	197.0	5005	89.6	2275	43.1	1095	64.1	1627	6/6	4030	1940	4120	2000	3810	1820	3900	1880
	TF550/TS550	216.7	5505	97.4	2475	51.0	1295	71.9	1827	6/6	3000	1860	3970	1920	2780	1740	3750	1800
	TF600/TS600	236.4	6005	105.3	2675	58.9	1495	79.8	2027	6/6	2820	1380	3840	1850	2600	1260	3620	1730
	TF650/TS650	256.1	6505	113.2	2875	66.7	1695	87.7	2227	3/3	2710	1330	3790	1820	2490	1210	3570	1700
TF700/TS700	275.8	7005	121.1	3075	74.6	1895	95.6	2427	3/3	2310	1100	3660	1750	2090	980	3440	1630	
4-Stage full free lift	QF610	240.7	6115	85.0	2160	38.6	980	59.5	1512	3/3	3110	1500	3520	1740	2890	1380	3400	1620
	QF660	260.4	6615	92.9	2360	46.5	1180	67.4	1712	3/3	2690	1300	3460	1660	2470	1180	3240	1540
	QF700	276.2	7015	96.9	2460	50.4	1280	71.3	1812	3/3	2070	1000	3350	1610	1850	880	3130	1490
	QF745	293.9	7465	102.8	2610	56.3	1430	77.2	1962	3/3	1460	700	2730	1320	1240	580	2510	1200
	QF790	311.6	7915	108.7	2760	62.2	1580	83.1	2112	3/3	1060	500	2010	960	940	380	1890	840

## Mast Specification (25D-9 & 25D-9E)

Mast Type	Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle (deg)	Load Capacity without side shift				Load Capacity with side shift				
	inch	mm	inch	mm	With Load Backrest		Without Load Backrest			Single Tire		Double Tire		Single Tire		Double Tire		
					inch	mm	inch	mm		24 in LC	500 mm LC	24 in LC	500 mm LC	24 in LC	500 mm LC	24 in LC	500 mm LC	
2-Stage Limited free lift	V300	118.3	3005	79.7	2025	4.5	155	4.5	155	6/10	5000	2500	5000	2500	5000	2500	5000	2500
	*V330	130.1	3305	85.6	2175	4.5	155	4.5	155	6/10	5000	2500	5000	2500	5000	2500	5000	2500
	V350	138.0	3505	89.6	2275	4.5	155	4.5	155	6/10	5000	2500	5000	2500	5000	2500	5000	2500
	V370	145.9	3705	95.5	2425	4.5	155	4.5	155	6/10	5000	2500	5000	2500	5000	2460	5000	2500
	V400	157.7	4005	101.4	2575	4.5	155	4.5	155	6/10	5000	2500	5000	2500	5000	2380	5000	2500
	V430	169.5	4305	107.3	2725	4.5	155	4.5	155	6/6	5000	2480	5000	2500	5000	2360	5000	2500
	V450	177.4	4505	113.2	2875	4.5	155	4.5	155	6/6	5000	2430	5000	2500	4870	2310	5000	2460
	V470	185.2	4705	117.1	2975	4.5	155	4.5	155	6/6	4960	2390	5000	2500	4740	2270	5000	2380
2-Stage full free lift	V500	197.0	5005	123.0	3125	4.5	155	4.5	155	6/6	4850	2330	5000	2430	4630	2210	5000	2310
	VF295	117.2	2976	79.7	2025	33.3	845	54.2	1377	6/6	5000	2500	5000	2500	5000	2500	5000	2500
	VF325	129.0	3276	85.1	2175	38.7	995	60.2	1527	6/6	5000	2500	5000	2500	5000	2460	5000	2500
VF345	136.9	3476	89.6	2275	43.1	1095	64.1	1627	6/6	5000	2500	5000	2500	5000	2380	5000	2460	
3-Stage full free lift	TF370/TS370	145.9	3705	71.9	1825	25.4	645	46.3	1177	6/6	5000	2500	5000	2500	5000	2460	5000	2500
	TF400/TS400	157.7	4005	75.8	1925	29.3	745	50.3	1277	6/6	5000	2500	5000	2500	5000	2380	5000	2500
	TF430/TS430	169.5	4305	79.7	2025	33.3	845	54.2	1377	6/6	5000	2440	5000	2500	5000	2320	5000	2460
	TF450/TS450	177.4	4505	83.7	2125	37.2	945	58.1	1477	6/6	5000	2410	5000	2500	4850	2290	5000	2380
	TF470/TS470	185.2	4705	85.6	2175	39.2	995	60.1	1527	6/6	4920	2360	5000	2450	4700	2240	4860	2330
	TF500/TS500	197.0	5005	89.6	2275	43.1	1095	64.1	1627	6/6	4810	2310	4940	2400	4590	2190	4720	2280
	TF550/TS550	216.7	5505	97.4	2475	51.0	1295	71.9	1827	6/6	3240	1550	4780	2310	3020	1430	4560	2190
	TF600/TS600	236.4	6005	105.3	2675	58.9	1495	79.8	2027	6/6	2930	1400	4590	2210	2710	1280	4370	2090
	TF650/TS650	256.1	6505	113.2	2875	66.7	1695	87.7	2227	3/3	2840	1350	4540	2180	2620	1230	4320	2060
TF700/TS700	275.8	7005	121.1	3075	74.6	1895	95.6	2427	3/3	2430	1150	4370	2100	2210	930	4150	1980	
4-Stage full free lift	QF610	240.7	6115	85.0	2160	38.6	980	59.5	1512	3/3	3330	1600	4410	2120	3110	1480	4190	2000
	QF660	260.4	6615	92.9	2360	46.5	1180	67.4	1712	3/3	2910	1400	4230	2040	2690	1280	4010	1920
	QF700	276.2	7015	96.9	2460	50.4	1280	71.3	1812	3/3	2290	1100	4120	1980	2070	980	3900	1860
	QF745	293.9	7465	102.8	2610	56.3	1430	77.2	1962	3/3	1680	800	3420	1650	1460	680	3200	1530
	QF790	311.6	7915	108.7	2760	62.2	1580	83.1	2112	3/3	1260	600	2600	1250	1240	480	2380	1130

# 22/25/30/33D-9

# 22/25/30/33D-9E

## Mast Specification (30D-9 & 30D-9E)

Mast Type	Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle (deg)	Load Capacity without side shift				Load Capacity with side shift				
					With Load Backrest		Without Load Backrest			Single Tire		Double Tire		Single Tire		Double Tire		
	inch	mm	inch	mm	inch	mm	inch	mm		24 in LC	500 mm LC	24 in LC	500 mm LC	24 in LC	500 mm LC	24 in LC	500 mm LC	
2-Stage Limited free lift	V300	118.3	3005	80.3	2040	4.5	155	4.5	155	6/10	6000	3000	6000	3000	6000	3000	6000	3000
	*V330	130.1	3305	86.2	2190	4.5	155	4.5	155	6/10	6000	3000	6000	3000	6000	3000	6000	3000
	V350	138.0	3505	90.2	2290	4.5	155	4.5	155	6/10	6000	3000	6000	3000	6000	3000	6000	3000
	V370	145.9	3705	96.1	2440	4.5	155	4.5	155	6/10	6000	3000	6000	3000	6000	2930	6000	3000
	V400	157.7	4005	102.0	2590	4.5	155	4.5	155	6/10	6000	3000	6000	3000	6000	2820	6000	3000
	V430	169.5	4305	107.9	2740	4.5	155	4.5	155	6/6	6000	2960	6000	3000	6000	2780	6000	2950
	V450	177.4	4505	113.8	2890	4.5	155	4.5	155	6/6	6000	2920	6000	3000	5800	2740	6000	2825
	V470	185.2	4705	117.7	2990	4.5	155	4.5	155	6/6	5910	2850	6000	2930	5610	2670	5830	2755
2-Stage full free lift	V500	197.0	5005	123.6	3140	4.5	155	4.5	155	6/6	5820	2650	5970	2890	5520	2470	5670	2715
	VF295	117.2	2976	80.3	2040	33.9	860	51.7	1314	6/6	6000	3000	6000	3000	6000	3000	6000	3000
	VF325	129.0	3276	85.1	2190	38.7	1010	60.2	1464	6/6	6000	3000	6000	3000	6000	2950	6000	3000
3-Stage full free lift	VF345	136.9	3476	90.2	2290	43.7	1110	61.6	1564	6/6	6000	3000	6000	3000	6000	2820	6000	2950
	TF370/TS370	145.9	3705	72.4	1840	26.0	660	43.9	1114	6/6	6000	3000	6000	3000	6000	2820	6000	3000
	TF400/TS400	157.7	4005	76.4	1940	29.9	760	47.8	1214	6/6	6000	3000	6000	3000	6000	2800	6000	2950
	TF430/TS430	169.5	4305	80.3	2040	33.9	860	51.7	1314	6/6	6000	2930	6000	3000	5810	2750	6000	2825
	TF450/TS450	177.4	4505	84.3	2140	37.8	960	55.7	1414	6/6	5930	2880	6000	2940	5630	2700	5830	2765
	TF470/TS470	185.2	4705	86.2	2190	39.8	1010	57.6	1464	6/6	5890	2850	5970	2900	5590	2670	5670	2725
	TF500/TS500	197.0	5005	90.2	2290	43.7	1110	61.6	1564	6/6	5730	2700	5840	2840	5430	2520	5540	2665
	TF550/TS550	216.7	5505	98.0	2490	51.6	1310	69.4	1764	6/6	3660	1750	5640	2720	3360	1570	5340	2545
	TF600/TS600	236.4	6005	105.9	2690	59.4	1510	77.3	1964	6/6	3020	1450	5450	2630	2720	1270	5150	2455
	TF650/TS650	256.1	6505	113.8	2890	67.3	1710	85.2	2164	3/3	2930	1400	5380	2590	2630	1220	5080	2415
4-Stage full free lift	TF700/TS700	275.8	7005	121.7	3090	75.2	1910	93.1	2364	3/3	2540	1200	5200	2500	2240	1020	4900	2325
	QF610	240.7	6115	85.6	2175	39.2	995	57.0	1449	3/3	3530	1700	5290	2560	3230	1520	4990	2385
	QF660	260.4	6615	93.5	2375	47.0	1195	64.9	1649	3/3	3130	1500	5090	2460	2830	1320	4790	2285
	QF700	276.2	7015	97.4	2475	51.0	1295	68.9	1749	3/3	2510	1200	4960	2400	2210	1020	4660	2225
	QF745	293.9	7465	103.3	2625	56.9	1445	74.8	1899	3/3	1870	900	4830	2320	1570	720	4530	2145
QF790	311.6	7915	109.3	2775	62.8	1595	80.7	2049	3/3	1480	700	4650	2230	1180	520	4350	2055	

## Mast Specification (33D-9 & 33D-9E)

Mast Type	Maximum Fork Height		Overall Height (Lowered)		Free Lift Height				Tilt Angle (deg)	Load Capacity without side shift				Load Capacity with side shift				
					With Load Backrest		Without Load Backrest			Single Tire		Double Tire		Single Tire		Double Tire		
	inch	mm	inch	mm	inch	mm	inch	mm		24 in LC	500 mm LC	24 in LC	500 mm LC	24 in LC	500 mm LC	24 in LC	500 mm LC	
2-Stage Limited free lift	V300	118.3	3005	83.1	2110	4.5	155	4.5	155	6/10	6500	3300	6500	3300	6500	3300	6500	3300
	*V330	130.1	3305	89.0	2260	4.5	155	4.5	155	6/10	6500	3300	6500	3300	6500	3300	6500	3300
	V350	138.0	3505	92.9	2360	4.5	155	4.5	155	6/10	6500	3300	6500	3300	6500	3300	6500	3300
	V370	145.9	3705	98.8	2510	4.5	155	4.5	155	6/10	6500	3300	6500	3300	6500	3210	6500	3300
	V400	157.7	4005	104.7	2660	4.5	155	4.5	155	6/10	6500	3300	6500	3300	6500	3120	6500	3300
	V430	169.5	4305	110.6	2810	4.5	155	4.5	155	6/6	6500	3250	6500	3300	6500	3070	6500	3250
	V450	177.4	4505	116.5	2960	4.5	155	4.5	155	6/6	6500	3190	6500	3300	6500	3010	6500	3125
	V470	185.2	4705	120.5	3060	4.5	155	4.5	155	6/6	6500	3140	6500	3240	6300	2960	6500	3065
2-Stage full free lift	V500	197.0	5005	126.4	3210	4.5	155	4.5	155	6/6	6420	3100	6500	3170	6120	2920	6500	2995
	VF295	117.2	2976	83.1	2110	36.6	930	54.5	1384	6/6	6500	3300	6500	3300	6500	3300	6500	3300
	VF325	129.0	3276	88.3	2260	41.9	1080	60.1	1534	6/6	6500	3300	6500	3300	6500	3210	6500	3300
3-Stage full free lift	VF345	136.9	3476	89.0	2260	46.5	1180	64.3	1634	6/6	6500	3300	6500	3300	6500	3120	6500	3250
	TF370/TS370	145.9	3705	75.2	1910	28.7	730	43.9	1114	6/6	6500	3300	6500	3300	6500	3120	6500	3250
	TF400/TS400	157.7	4005	79.1	2010	32.7	830	47.8	1214	6/6	6500	3250	6500	3300	6500	3070	6500	3125
	TF430/TS430	169.5	4305	83.1	2110	36.6	930	51.7	1314	6/6	6500	3180	6500	3280	6500	3000	6500	3105
	TF450/TS450	177.4	4505	87.0	2210	40.6	1030	55.7	1414	6/6	6500	3120	6500	3220	6270	2940	6500	3045
	TF470/TS470	185.2	4705	89.0	2260	42.5	1080	57.6	1464	6/6	6350	3080	6500	3170	6050	2900	6290	2995
	TF500/TS500	197.0	5005	92.9	2360	46.5	1180	61.6	1564	6/6	6260	3030	6390	3110	5960	2850	6090	2935
	TF550/TS550	216.7	5505	100.8	2560	54.3	1380	69.4	1764	6/6	4560	2200	6170	2990	4260	2020	5870	2815
	TF600/TS600	236.4	6005	108.7	2760	62.2	1580	77.3	1964	6/6	3130	1500	5950	2870	2830	1320	5650	2695
	TF650/TS650	256.1	6505	116.5	2960	70.1	1780	85.2	2164	3/3	3060	1450	5910	2830	2760	1280	5610	2655
4-Stage full free lift	TF700/TS700	275.8	7005	124.4	3160	78.0	1980	93.1	2364	3/3	2650	1250	5710	2730	2350	1080	5410	2555
	QF610	240.7	6115	87.6	2225	41.1	1045	57.0	1449	3/3	3750	1800	5930	2870	3450	1620	5630	2695
	QF660	260.4	6615	95.5	2425	49.0	1245	64.9	1649	3/3	3330	1600	5730	2770	3030	1420	5430	2595
	QF700	276.2	7015	99.4	2525	53.0	1345	68.9	1749	3/3	2710	1300	5600	2700	2410	1120	5300	2525
	QF745	293.9	7465	105.3	2675	58.9	1495	74.8	1899	3/3	2090	1000	5420	2620	1790	820	5210	2445
QF790	311.6	7915	111.2	2825	64.8	1645	80.7	2049	3/3	1680	800	5250	2530	1380	620	4950	2355	

# New 9 Series

## Truck Weight (22D-9)

Mast Type		Truck Weight (Unloaded)			
		Single Tire		Double Tire	
		lb	kg	lb	kg
2-Stage Limited free lift	V300	7833	3553	8128	3687
	*V330	7877	3573	8172	3707
	V350	7914	3590	8210	3724
	V370	7943	3603	8239	3737
	V400	8029	3642	8325	3776
	V430	8144	3694	8439	3828
	V450	8192	3716	8488	3850
	V470	8223	3730	8519	3864
2-Stage full free lift	V500	8272	3752	8567	3886
	VF295	7877	3573	8183	3712
	VF325	7952	3607	8258	3746
3-Stage full free lift	VF345	8003	3630	8329	3778
	TF370/TS370	8078	3664	8384	3803
	TF400/TS400	8131	3688	8437	3827
	TF430/TS430	8170	3706	8477	3845
	TF450/TS450	8219	3728	8525	3867
	TF470/TS470	8247	3741	8554	3880
	TF500/TS500	8296	3763	8602	3902
	TF550/TS550	8384	3803	8688	3941
	TF600/TS600	8525	3867	8832	4006
	TF650/TS650	8629	3914	8935	4053
4-Stage full free lift	TF700/TS700	8713	3952	9019	4091
	QF610	9059	4109	9411	4269
	QF660	9191	4169	9541	4328
	QF700	9259	4200	9610	4359
	QF745	9358	4245	9711	4405
	QF790	9581	4346	9932	4505

## Truck Weight (22D-9E)

Mast Type		Truck Weight (Unloaded)			
		Single Tire		Double Tire	
		lb	kg	lb	kg
2-Stage Limited free lift	V300	7694	3490	7989	3624
	*V330	7738	3510	8034	3644
	V350	7776	3527	8071	3661
	V370	7804	3540	8100	3674
	V400	7890	3579	8186	3713
	V430	8005	3631	8300	3765
	V450	8053	3653	8349	3787
	V470	8084	3667	8380	3801
	V500	8133	3689	8428	3823
	2-Stage full free lift	VF295	7738	3510	8045
VF325		7813	3544	8120	3683
VF345		7864	3567	8190	3715
3-Stage full free lift	TF370/TS370	7939	3601	8245	3740
	TF400/TS400	7992	3625	8298	3764
	TF430/TS430	8031	3643	8338	3782
	TF450/TS450	8080	3665	8386	3804
	TF470/TS470	8108	3678	8415	3817
	TF500/TS500	8157	3700	8463	3839
	TF550/TS550	8245	3740	8549	3878
	TF600/TS600	8386	3804	8693	3943
	TF650/TS650	8490	3851	8796	3990
	TF700/TS700	8574	3889	8880	4028
4-Stage full free lift	QF610	8920	4046	9273	4206
	QF660	9052	4106	9403	4265
	QF700	9120	4137	9471	4296
	QF745	9220	4182	9572	4342
	QF790	9442	4283	9793	4442

## Truck Weight (25D-9)

Mast Type		Truck Weight (Unloaded)			
		Single Tire		Double Tire	
		lb	kg	lb	kg
2-Stage Limited free lift	V300	8549	3878	8823	4002
	*V330	8591	3897	8867	4022
	V350	8629	3914	8904	4039
	V370	8655	3926	8933	4052
	V400	8743	3966	9019	4091
	V430	8858	4018	9134	4143
	V450	8907	4040	9182	4165
	V470	8940	4055	9213	4179
2-Stage full free lift	V500	8988	4077	9261	4201
	VF295	8593	3898	8878	4027
	VF325	8666	3931	8953	4061
3-Stage full free lift	VF345	8719	3955	9023	4093
	TF370/TS370	8792	3988	9079	4118
	TF400/TS400	8845	4012	9131	4142
	TF430/TS430	8884	4030	9171	4160
	TF450/TS450	8933	4052	9220	4182
	TF470/TS470	8964	4066	9248	4195
	TF500/TS500	9012	4088	9297	4217
	TF550/TS550	9098	4127	9383	4256
	TF600/TS600	9242	4192	9526	4321
	TF650/TS650	9343	4238	9630	4368
4-Stage full free lift	TF700/TS700	9427	4276	9713	4406
	QF610	9775	4434	10106	4584
	QF660	9907	4494	10236	4643
	QF700	9974	4524	10304	4674
	QF745	10075	4570	10406	4720
	QF790	10295	4670	10626	4820

## Truck Weight (25D-9E)

Mast Type		Truck Weight (Unloaded)			
		Single Tire		Double Tire	
		lb	kg	lb	kg
2-Stage Limited free lift	V300	8391	3806	8664	3930
	*V330	8433	3825	8708	3950
	V350	8470	3842	8746	3967
	V370	8496	3854	8774	3980
	V400	8585	3894	8860	4019
	V430	8699	3946	8975	4071
	V450	8748	3968	9023	4093
	V470	8781	3983	9054	4107
	V500	8829	4005	9103	4129
	2-Stage full free lift	VF295	8435	3826	8719
VF325		8508	3859	8794	3989
VF345		8560	3883	8865	4021
3-Stage full free lift	TF370/TS370	8633	3916	8920	4046
	TF400/TS400	8686	3940	8973	4070
	TF430/TS430	8726	3958	9012	4088
	TF450/TS450	8774	3980	9061	4110
	TF470/TS470	8805	3994	9090	4123
	TF500/TS500	8854	4016	9138	4145
	TF550/TS550	8940	4055	9224	4184
	TF600/TS600	9083	4120	9367	4249
	TF650/TS650	9184	4166	9471	4296
	TF700/TS700	9268	4204	9555	4334
4-Stage full free lift	QF610	9616	4362	9947	4512
	QF660	9749	4422	10077	4571
	QF700	9815	4452	10146	4602
	QF745	9916	4498	10247	4648
	QF790	10137	4598	10467	4748

# New 9 Series

# 22/25/30/33D-9 22/25/30/33D-9E

## Truck Weight (30D-9)

Mast Type		Truck Weight (Unloaded)			
		Single Tire		Double Tire	
		lb	kg	lb	kg
2-Stage Limited free lift	V300	9431	4278	9638	4372
	*V330	9475	4298	9683	4392
	V350	9515	4316	9722	4410
	V370	9544	4329	9751	4423
	V400	9632	4369	9841	4464
	V430	9749	4422	9956	4516
	V450	9799	4445	10007	4539
	V470	9832	4460	10040	4554
2-Stage full free lift	V500	9883	4483	10090	4577
	VF295	9575	4343	9780	4436
	VF325	9652	4378	9857	4471
3-Stage full free lift	VF345	9729	4413	9934	4506
	TF370/TS370	9815	4452	10020	4545
	TF400/TS400	9870	4477	10073	4569
	TF430/TS430	9918	4499	10121	4591
	TF450/TS450	9974	4524	10179	4617
	TF470/TS470	10004	4538	10209	4631
	TF500/TS500	10055	4561	10258	4653
	TF550/TS550	10152	4605	10355	4697
	TF600/TS600	10306	4675	10509	4767
	TF650/TS650	10419	4726	10622	4818
4-Stage full free lift	TF700/TS700	10514	4769	10719	4862
	QF610	10719	4862	10963	4973
	QF660	10851	4922	11096	5033
	QF700	10971	4952	11162	5063
	QF745	11019	4998	11263	5109
	QF790	11239	5098	11486	5210

## Truck Weight (30D-9E)

Mast Type		Truck Weight (Unloaded)			
		Single Tire		Double Tire	
		lb	kg	lb	kg
2-Stage Limited free lift	V300	9257	4199	9464	4293
	*V330	9301	4219	9508	4313
	V350	9341	4237	9548	4331
	V370	9370	4250	9577	4344
	V400	9458	4290	9667	4385
	V430	9575	4343	9782	4437
	V450	9625	4366	9832	4460
	V470	9658	4381	9866	4475
2-Stage full free lift	V500	9709	4404	9916	4498
	VF295	9400	4264	9605	4357
	VF325	9478	4299	9683	4392
3-Stage full free lift	VF345	9555	4334	9760	4427
	TF370/TS370	9641	4373	9846	4466
	TF400/TS400	9696	4398	9899	4490
	TF430/TS430	9744	4420	9947	4512
	TF450/TS450	9799	4445	10004	4538
	TF470/TS470	9830	4459	10035	4552
	TF500/TS500	9881	4482	10084	4574
	TF550/TS550	9978	4526	10181	4618
	TF600/TS600	10132	4596	10335	4688
	TF650/TS650	10245	4647	10448	4739
4-Stage full free lift	TF700/TS700	10340	4690	10545	4783
	QF610	10545	4783	10789	4894
	QF660	10677	4843	10922	4954
	QF700	10743	4873	10988	4984
	QF745	10844	4919	11089	5030
	QF790	11065	5019	11312	5131

## Truck Weight (33D-9)

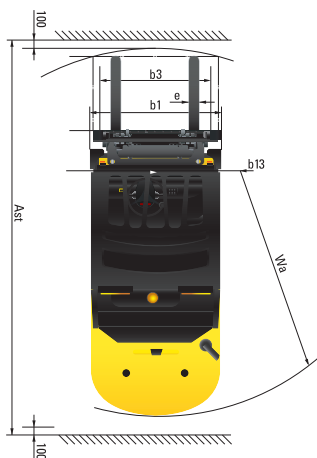
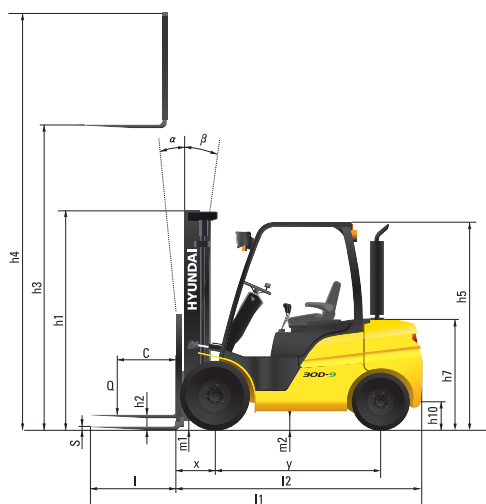
Mast Type		Truck Weight (Unloaded)			
		Single Tire		Double Tire	
		lb	kg	lb	kg
2-Stage Limited free lift	V300	10015	4543	10256	4652
	*V330	10068	4567	10309	4676
	V350	10101	4582	10344	4692
	V370	10135	4597	10373	4705
	V400	10225	4638	10465	4747
	V430	10344	4692	10584	4801
	V450	10395	4715	10637	4825
	V470	10430	4731	10670	4840
2-Stage full free lift	V500	10483	4755	10723	4864
	VF295	10198	4626	10432	4732
	VF325	10278	4662	10511	4768
3-Stage full free lift	VF345	10355	4697	10586	4802
	TF370/TS370	10514	4769	10747	4875
	TF400/TS400	10562	4791	10796	4897
	TF430/TS430	10608	4812	10842	4918
	TF450/TS450	10655	4833	10891	4940
	TF470/TS470	10686	4847	10919	4953
	TF500/TS500	10734	4869	10968	4975
	TF550/TS550	10831	4913	11065	5019
	TF600/TS600	10992	4986	11226	5092
	TF650/TS650	11098	5034	11332	5140
4-Stage full free lift	TF700/TS700	11188	5075	11422	5181
	QF610	11270	5112	11515	5223
	QF660	11402	5172	11647	5283
	QF700	11468	5202	11713	5313
	QF745	11563	5245	11808	5356
	QF790	11790	5348	12037	5460

## Truck Weight (33D-9E)

Mast Type		Truck Weight (Unloaded)			
		Single Tire		Double Tire	
		lb	kg	lb	kg
2-Stage Limited free lift	V300	9868	4476	10108	4585
	*V330	9921	4500	10161	4609
	V350	9954	4515	10196	4625
	V370	9987	4530	10225	4638
	V400	10077	4571	10317	4680
	V430	10196	4625	10437	4734
	V450	10247	4648	10489	4758
	V470	10282	4664	10523	4773
2-Stage full free lift	V500	10335	4688	10575	4797
	VF295	10051	4559	10284	4665
	VF325	10130	4595	10364	4701
3-Stage full free lift	VF345	10207	4630	10439	4735
	TF370/TS370	10366	4702	10600	4808
	TF400/TS400	10414	4724	10648	4830
	TF430/TS430	10461	4745	10694	4851
	TF450/TS450	10507	4766	10743	4873
	TF470/TS470	10538	4780	10772	4886
	TF500/TS500	10586	4802	10820	4908
	TF550/TS550	10683	4846	10917	4952
	TF600/TS600	10844	4919	11078	5025
	TF650/TS650	10950	4967	11184	5073
4-Stage full free lift	TF700/TS700	11041	5008	11274	5114
	QF610	11122	5045	11367	5156
	QF660	11254	5105	11499	5216
	QF700	11321	5135	11565	5246
	QF745	11415	5178	11660	5289
	QF790	11642	5281	11889	5393

# New 9 Series

## Dimensions

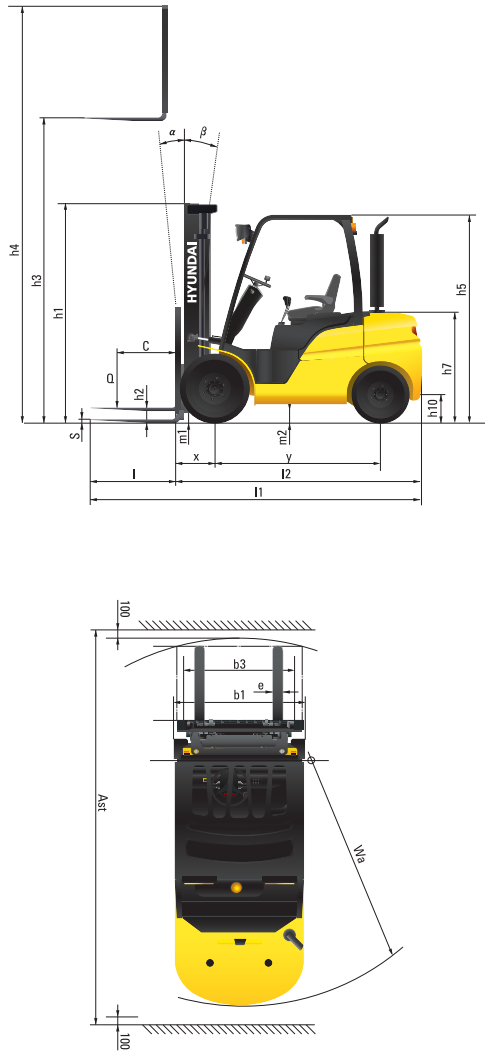


## Specifications

Identification		Hyundai			
1.1	Manufacturer	Hyundai			
1.2	Type	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 (standard) / Rated load	Q (kg) 2200	2500	3000	3300
1.6	Load center distance	c (mm) 500	500	500	500
1.8	Load distance, center of drive axle to forks	x (mm) 468	468	468	468
1.9	Wheelbase	y (mm) 1650	1650	1700	1700
Weights					
2.1	Service weight	kg 3573	3888	4282	4561
2.2	Axle loading, loaded front / rear	kg 5162 / 612	5567 / 822	6375 / 906	6807 / 1054
2.3	Axle loading, unloaded front / rear	kg 1671 / 1902	1600 / 2288	1667 / 2615	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
3.5	Number of wheels front / rear (x=driven wheels)	2x / 2	2x / 2	2x / 2	2x / 2
3.6	Track width, front	b10 (mm) 999	999	1005	1005
3.7	Track width, rear	b11 (mm) 980	980	980	980
Basic Dimensions					
4.1	Mast / fork carriage tilt forward / backward (α / β)	degrees 6 / 10	6 / 10	6 / 10	6 / 10
4.2	Lowered mast height	h1 (mm) 2175	2175	2190	2260
4.3	Free lift	h2 (mm) 155	155	155	155
4.4	Lift height	h3 (mm) 3305	3305	3305	3305
4.5	Extended mast height	h4 (mm) 4485	4485	4485	4485
4.7	Overhead guard height (cabin)	h5 (mm) 2160 (2170)	2160 (2170)	2180 (2190)	2180 (2190)
4.8	Seat height / standing height	h7 (mm) 1187	1187	1212	1212
4.12	Coupling height	h10 (mm) 295	295	320	320
4.19	Overall length	l1 (mm) 3627	3657	3726	3782
4.20	Length to face of forks	l2 (mm) 2577	2607	2676	2732
4.21	Overall width	b1 (mm) 1200	1200	1228	1228
4.22	Fork dimensions (hook type)	l / e / s (mm) 1050 x 100 x 45	1050 x 100 x 45	1050 x 122 x 45	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	1102	1102	1102
4.31	Ground clearance, loaded, under mast	m1 (mm) 130	130	145	145
4.32	Ground clearance, centre of wheelbase	m2 (mm) 157	157	181	181
4.33	Aisle width for pallets 1000 x 1200 crossways (L x W)	Ast (mm) 3954	4010	4081	4131
4.34	Aisle width for pallets 800 x 1200 lengthways (W x L)	Ast (mm) 4154	4210	4281	4331
4.35	Turning radius	Wa (mm) 2286	2342	2413	2463
4.36	Smallest pivot point distance	b13 (mm) 714	714	731	731
Performance Data					
5.1	Travel speed, unloaded	km/h 18.5	18.5	20.0	19.9
5.2	Lift speed, loaded / unloaded	mm/s 570 / 640	560 / 640	470 / 530	460 / 530
5.3	Lowering speed, loaded / unloaded	mm/s 500 / 450	500 / 450	500 / 450	500 / 450
5.5	Drawbar pull, loaded	kg 2680	2686	2440	2443
5.7	Gradient performance, loaded	% 45.8	40.7	31.4	29.0
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	50(68ps) / 2300	50(68ps) / 2300	50(68ps) / 2300
6.3	Maximum Torque	kg.f.m/rpm 23.3 / 1500	23.3 / 1500	23.3 / 1500	23.3 / 1500
6.4	No. of cylinder / cubic capacity	EA/cc 4 / 3331	4 / 3331	4 / 3331	4 / 3331
6.5	Fuel consumption acc. to VDI cycle	ℓ/h 3.1	3.2	3.4	3.6
Other Details					
8.1	Type of drive control	PowerShift	PowerShift	PowerShift	PowerShift
8.2	Operating pressure (system/attachments)	bar 182 / 162	182 / 162	196 / 162	196 / 162
8.3	Hydraulic oil flow (attachments)	ℓ / min 36	36	38	38
8.4	Sound level at driver's ear according to DIN 12053	db (A) 80	80	80	80
8.5	Trailer coupling, type DIN	PIN	PIN	PIN	PIN

# 22/25/30/33D-9 22/25/30/33D-9E

## Dimensions



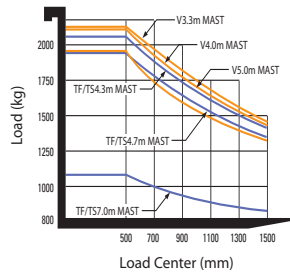
## Specifications

Identification		Hyundai				
1.1	Manufacturer	Hyundai				
1.2	Type	22D-9E	25D-9E	30D-9E	33D-9E	
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 (standard) / Rated load	2200	2500	3000	3300	
1.6	Load center distance	c (mm)	500	500	500	
1.8	Load distance, center of drive axle to forks	x (mm)	468	468	468	
1.9	Wheelbase	y (mm)	1650	1650	1700	
Weights						
2.1	Service weight	kg	3510	3825	4219	4500
2.2	Axle loading, loaded front / rear	kg	5143 / 567	5549 / 776	6355 / 863	6788 / 1012
2.3	Axle loading, unloaded front / rear	kg	1652 / 1858	1582 / 2243	1647 / 2572	1609 / 2891
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	
3.5	Number of wheels front / rear (x=driven wheels)	2x / 2	2x / 2	2x / 2	2x / 2	
3.6	Track width, front	b10 (mm)	999	999	1005	1005
3.7	Track width, rear	b11 (mm)	980	980	980	980
Basic Dimensions						
4.1	Mast / fork carriage tilt forward / backward (α / β)	degrees	6 / 10	6 / 10	6 / 10	6 / 10
4.2	Lowered mast height	h1 (mm)	2175	2175	2190	2260
4.3	Free lift	h2 (mm)	155	155	155	155
4.4	Lift height	h3 (mm)	3305	3305	3305	3305
4.5	Extended mast height	h4 (mm)	4485	4485	4485	4485
4.7	Overhead guard height (cabin)	h5 (mm)	2160 (2170)	2160 (2170)	2180 (2190)	2180 (2190)
4.8	Seat height / standing height	h7 (mm)	1187	1187	1212	1212
4.12	Coupling height	h10 (mm)	295	295	320	320
4.19	Overall length	l1 (mm)	3627	3657	3726	3782
4.20	Length to face of forks	l2 (mm)	2577	2607	2676	2732
4.21	Overall width	b1 (mm)	1200	1200	1228	1228
4.22	Fork dimensions (hook type)	l / e / s (mm)	1050 x 100 x 45	1050 x 100 x 45	1050 x 122 x 45	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	1102	1102	1102
4.31	Ground clearance, loaded, under mast	m1 (mm)	130	130	145	145
4.32	Ground clearance, centre of wheelbase	m2 (mm)	157	157	181	181
4.33	Aisle width for pallets 1000 x 1200 crossways (L x W)	Ast (mm)	3954	4010	4081	4131
4.34	Aisle width for pallets 800 x 1200 lengthways (W x L)	Ast (mm)	4154	4210	4281	4331
4.35	Turning radius	Wa (mm)	2286	2342	2413	2463
4.36	Smallest pivot point distance	b13 (mm)	714	714	731	731
Performance Data						
5.1	Travel speed, unloaded	km/h	17.1	17.1	18.4	18.4
5.2	Lift speed, loaded / unloaded	mm/s	530 / 590	520 / 590	440 / 490	430 / 490
5.3	Lowering speed, loaded / unloaded	mm/s	500 / 450	500 / 450	500 / 450	500 / 450
5.5	Drawbar pull, loaded	kg	1958	1959	1772	1772
5.7	Gradient performance, loaded	%	31.8	28.5	22.3	20.6
5.10	Service brake		FOOT	FOOT	FOOT	FOOT
Engine						
6.1	Engine manufacturer / type	Yanmar 4TNE92	Yanmar 4TNE92	Yanmar 4TNE92	Yanmar 4TNE92	
6.2	Engine power acc. To ISO 1585	kW/rpm	33.4(45.4ps) / 2450	33.4(45.4ps) / 2450	33.4(45.4ps) / 2450	33.4(45.4ps) / 2450
6.3	Maximum Torque	kg.f.m/rpm	14.7 / 1600	14.7 / 1600	14.7 / 1600	14.7 / 1600
6.4	No. of cylinder / cubic capacity	EA/cc	4 / 2659	4 / 2659	4 / 2659	4 / 2659
6.5	Fuel consumption acc. to VDI cycle	ℓ/h	3.1	3.2	3.4	3.6
Other Details						
8.1	Type of drive control	PowerShift	PowerShift	PowerShift	PowerShift	
8.2	Operating pressure (system/attachments)	bar	182 / 162	182 / 162	196 / 162	196 / 162
8.3	Hydraulic oil flow (attachments)	ℓ / min	54	54	54	54
8.4	Sound level at driver's ear according to DIN 12053	db (A)	80	80	80	80
8.5	Trailer coupling, type DIN		PIN	PIN	PIN	PIN

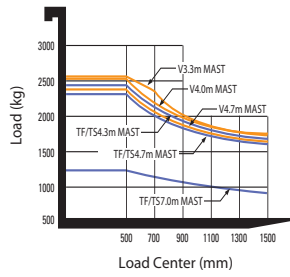
# New 9 Series

## Load Capacity

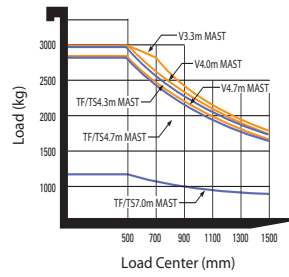
22D-9 & 22D-9E



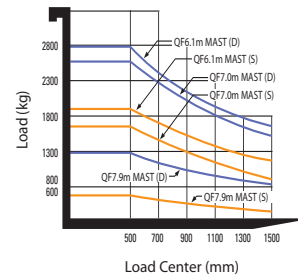
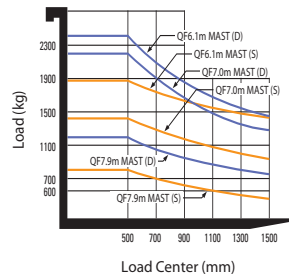
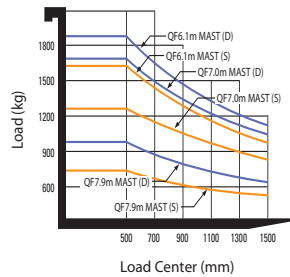
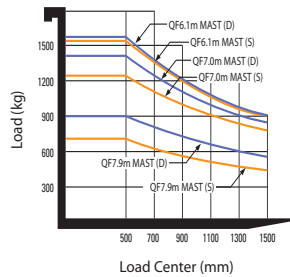
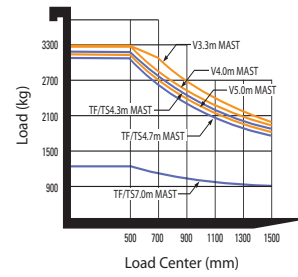
25D-9 & 25D-9E



30D-9 & 30D-9E



33D-9 & 33 D9E



## 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

### • Fork positioner, Sideshift

• **Tire** : Pneumatic (standard) / Solid (superelastic) / Non-marking / Front double tire

• **Seat** : Armrest, Heat, Backrest Ext, Buckle SW

### • Load Indicator

• **Auto Fork Leveling System**

• **Rear View Camera**

• **Cabin** (Heater & Air Conditioner)

• **Beacon Lamp** (Bulb or LED) (Amber, Red, Blue)

• **Rear work Lamp**

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

\* 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.

\* All imperial measurements rounded off to the nearest pound or inch.

PLEASE CONTACT



HHF037A, Industrial estate BBG3000, HAL-FAR  
Malta  
info@rcvmalta.com  
+(356) 2148 5681

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Hyundai Heavy Industries Europe N.V.  
VOSSENDAAL 11, 2440 GEEL, BELGIUM TEL: (32) 14-56-2200 FAX: (32) 14-59-3405