

# 50/70D-9

Diesel Counterbalance Trucks

HYUNDAI FORKLIFT



 **HYUNDAI**  
**FORKLIFT**

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# Your satisfaction is **our priority!**

Hyundai introduces a new line of 9-series diesel forklift trucks.  
The newly designed four-wheel counterbalance trucks provide operator comfort,  
increased productivity and easy maintenance.

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## Proven quality and advanced technology

- Maximum performance
- Spacious operator cab
- Switch-type parking brake
- 4.3 inch LCD color cluster
- Truck inclination warning system
- Maximum speed limit function
- Easy serviceability
- Password starting system
- Weight indicator (optional)
- Full automatic temperature control (FATC)
- Operator presence sensing system (OPSS) for safe operation



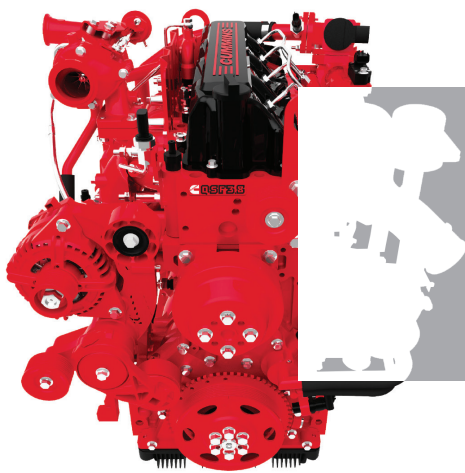
\*Photos may include optional equipment.

# High efficiency, optimal performance



\*Photos may include optional equipment.

## CUMMINS QSF3.8 Engine 101 hp / 2,200 rpm



### Powerful engine

The four-cylinder, turbo-charged engine is built for power, reliability and economy. This engine meets EPA Tier 4 and EU Stage IV emissions regulations.

### Excellent fuel efficiency

These new models feature improved fuel consumption compared to previous models.

### SCR (Selective Catalytic Reduction)

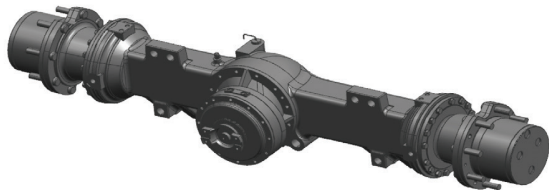
### EGR (Exhaust Gas Recirculation)

- High torque at low speeds
- Excellent transient behavior



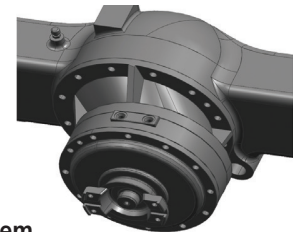
A powerful engine and high-tech systems combine to provide enhanced performance and productivity.

## 50/70D-9



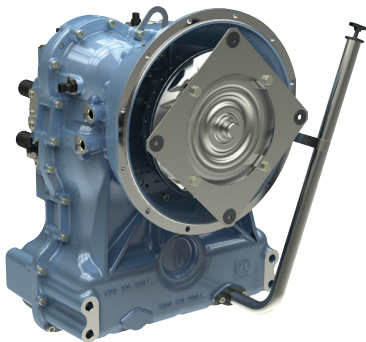
### Highly durable drive axle

The strengthened drive axle, separable from the transmission, ensures low vibration and easy maintenance. The maintenance-free wet disc brakes are easy to operate and deliver smooth response.



### Negative parking brake system

The wet disc parking brake provides effective performance and easy operation.



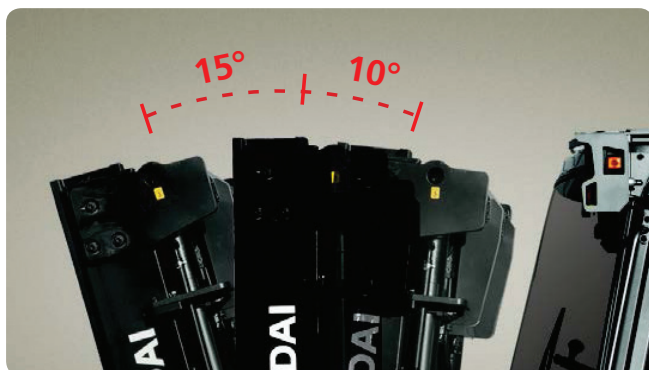
### Highly durable transmission

The two-stage powershift transmission enhances work efficiency and provides fast speed and quiet travel under any heavy load condition. The clutch protection system prevents excessive use of inching and minimizes change-impact.



### Fully hydrostatic power steering

The hydraulic steering system ensures smooth and flexible steering, preventing overrun and kick-back.



### Increased mast tilting angle

The mast tilting angle adjusts 15 degrees forward and 10 degrees backward, allowing the operator to perform loading and unloading jobs safely and rapidly.



### Maximum travel speed

Model	mph
50D-9	21
70D-9	20.8

### Maximum gradeability

Model	%
50D-9	58.7
70D-9	44.4

### Faster travel speed, improved gradeability

The powerful engine provides greater acceleration, improved gradeability and faster travel speed in the toughest terrain and on the steepest slopes.

# Unmatched convenience, optimized ergonomics



\*Photos may include optional equipment.

## Spacious operator cabin

The newly designed cabin provides more space, a wider field of view and greater operator comfort.



## Centralized instrument switch panel



## Quick-response control levers

Minimal operator effort is required to provide precise, safe and productive control. Available as a four-lever configuration (standard) or a 2/3/5-lever configuration (optional).



## Grammer seat (standard)

An adjustable ergonomic seat provides unmatched comfort. The adjustable armrest further reduces operator fatigue.

- Accommodates operator weights from 99 to 375 lb
- Standard energy locking retractor (ELR) seat belt
- Heater and headrest (optional)



## Optimized pedal position



## Multi-function switch lever



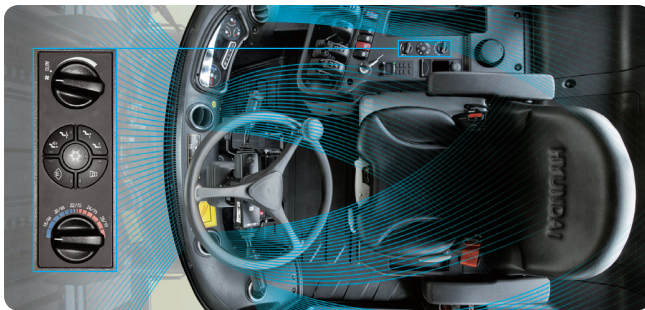
The ergonomic cab design relieves fatigue and increases operator efficiency.

## 50/70D-9



### New design and concentrated cluster panel

1	Parking lamp	9	Hour meter	17	Rear-wheel angle (optional)
2	Engine check warning lamp	10	Odometer	18	Right-turn signal indicator lamp
3	High-beam indicator lamp	11	Outside temperature indicator	19	Engine coolant temperature gauge
4	Operator presence indicator lamp	12	Air-conditioning setting temp indicator	20	Transmission oil temperature gauge
5	Seat belt warning lamp	13	Vehicle tilt angle indicator	21	Fuel gauge
6	Left-turn signal indicator lamp	14	Clock	22	Speed gauge
7	Engine RPM indicator	15	T/M information display		
8	Weight indicator (optional)	16	Urea level gauge		



#### Automatic temperature control

The system automatically controls cab temperature to maintain an optimal working environment.



#### Adjustable steering wheel

Featuring a horn button, the steering wheel can be adjusted by a right-hand lever to set the most comfortable position for the operator.



# Advanced safety



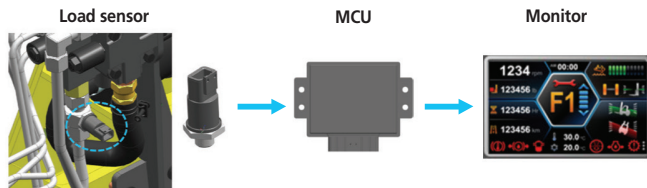
## Electrical interlock

When the parking brake is engaged, electric power for travel is interrupted, even while the forward or reverse lever is operating.



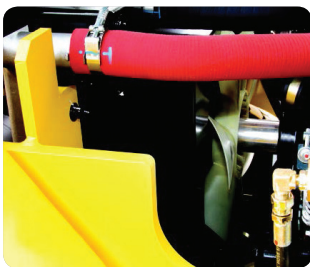
## Adjustable engine, low idle rpm

While the engine is running, low idle RPM can be increased by 25 RPM, maintaining the previously set RPM when the engine restarts.



## Weight 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.



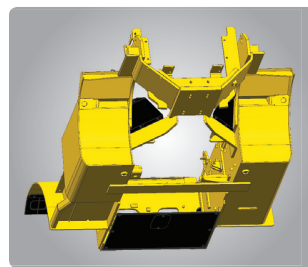
## Efficient cooling system

The aluminum radiator provides excellent cooling capacity and improved air flow.



## Large footboard and hand grip

The wide step provides safety and ease when entering and exiting the truck.



## Rear tire cover / under cover (optional)

The cover protects the engine and components from damage caused by foreign materials.



## Safe, easy shift lever

A single lever on the left side of the steering column provides fast, easy directional control. The lever must be in the neutral position before the engine can be started.



Hyundai forklifts are designed for safety and durability.

## 50/70D-9

### 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 and causing sudden damage to the hydraulic line.

### Operator Presence Sensing System (OPSS)

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

- Lift Lock
- Tilt Lock
- Drive Lock
- Parking

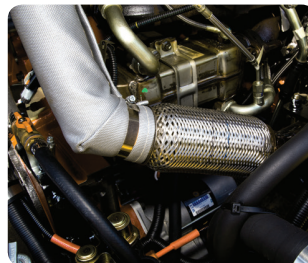


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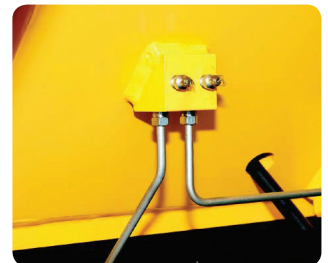
### Bright, protected headlights

Standard front and back work lamps provide visibility in all circumstances.



### Expansion bellows

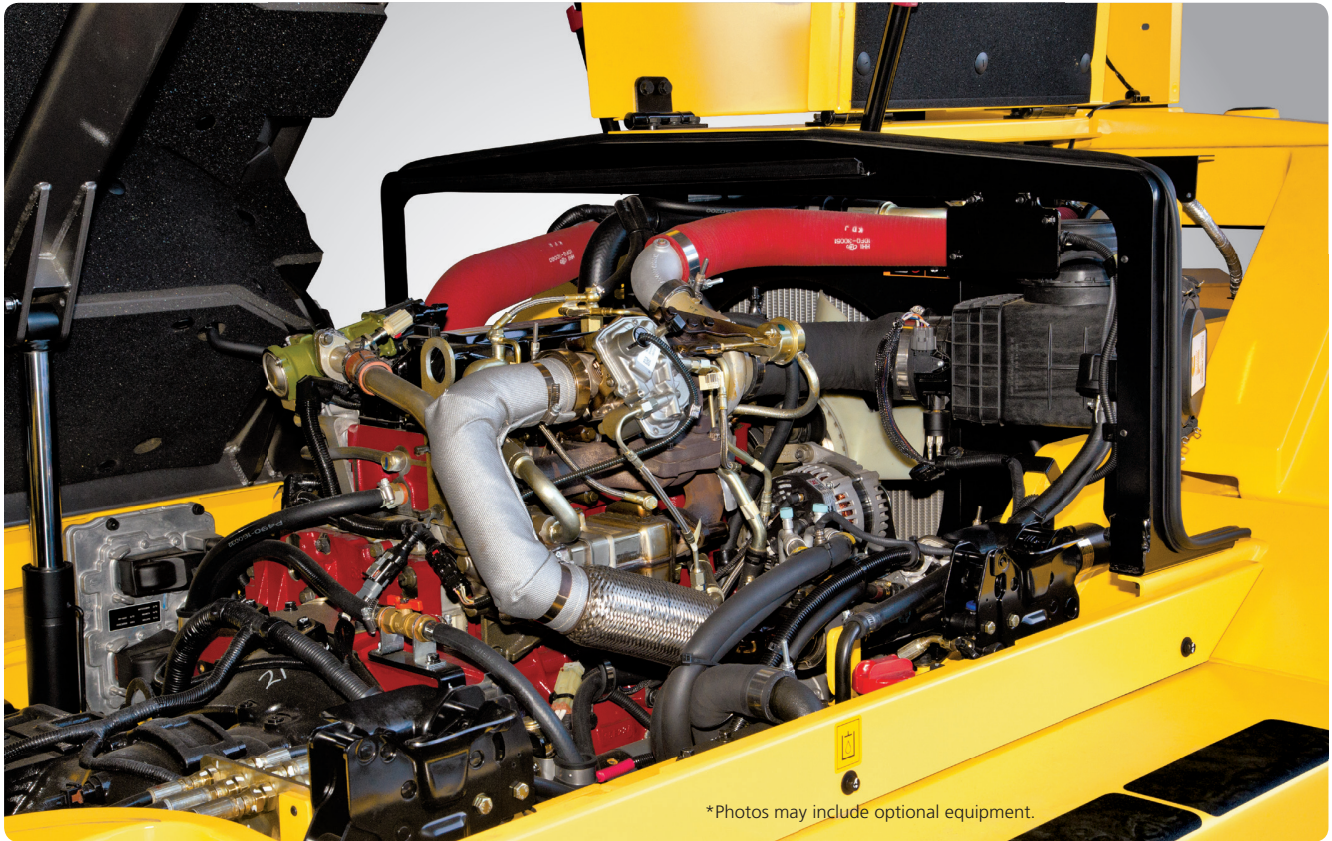
The sufficient length of the bellows pipe between the exhaust pipe and engine exhaust manifold ensures the durability of the muffler and exhaust pipe.



### Grease fittings

Grease fittings are installed for fast service access to the steering axle center pin.

# Fast, easy maintenance



\*Photos may include optional equipment.

## Enlarged engine hood cover

The highly accessible engine compartment assures fast, efficient maintenance.



## Cab tilt system

The cab tilt system makes servicing of all powertrain components quick and easy. An electrically assisted hydraulic actuated cylinder tilts the operator cab 54 degrees to the left for easy access to truck components.



## Pre-fuel filter replacement

The highly accessible engine compartment ensures quick filter replacement.



## Electrically monitored air filter

The air cleaner sensor alerts the operator to a clogged air filter for timely replacement before damage occurs.



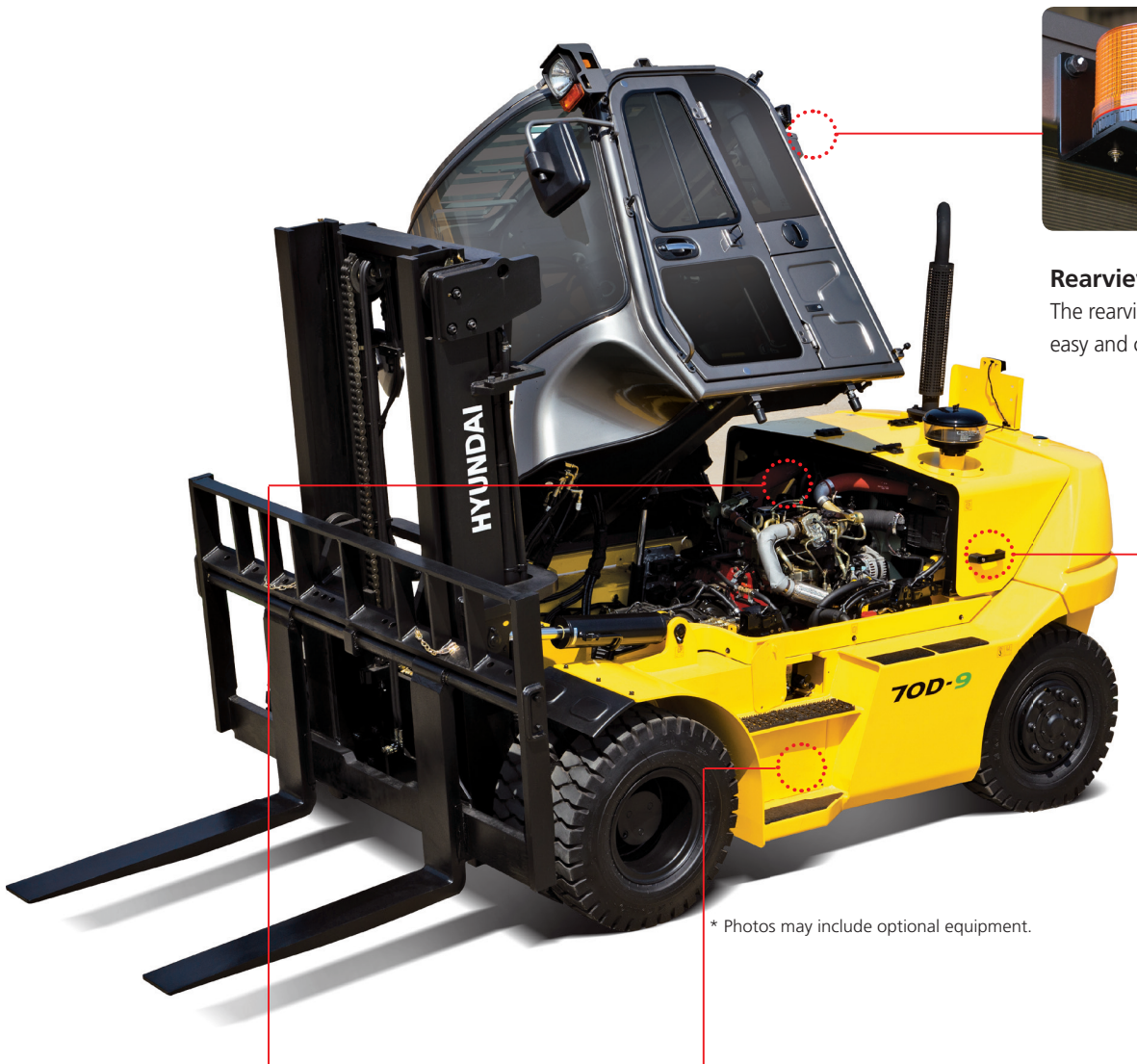
## Water- and dust-proof cover

The newly developed water- and dust-proof fuse box and relay box ensure greater ease of maintenance.



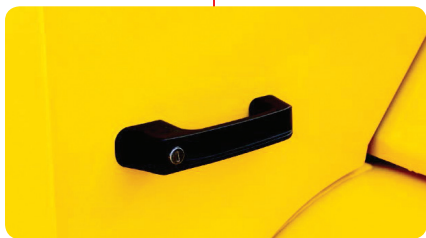
Components are arranged for easy service and maintenance access.

# 50/70D-9



**Rearview camera**  
The rearview camera provides easy and convenient operation.

\* Photos may include optional equipment.



Wing cover locking system



Maintenance-free batteries



Easy-to-access windshield washer tank

# New 9 Series

## Mast Specification (50D-9) Standard: Hook-On Type Fork & Carriage

Mast Type	Maximum Fork Height	Overall Height				Free Lift		Tilt Angle		Load Capacity Without Side Shift At 24 in LC	Load Capacity With Side Shift At 24 in LC	Truck Weight Unloaded
		Lowered	Extended		Without Load Backrest	With Standard Load Backrest	Fwd	Rev				
			Without Load Backrest	With Standard Load Backrest								
in	in	in	in	in	in	deg	deg	lb	lb	lb		
2-stage limited free lift	V270	107	93	145	158	6	6	15	10	11000	11000	19548
	V300	119	99	157	170	6	6	15	10	11000	11000	19654
	V330	131	105	169	182	6	6	15	10	11000	11000	19760
	V350	139	109	177	190	6	6	15	10	11000	11000	19828
	V370	147	113	185	198	6	6	15	10	11000	11000	19899
	V400	159	119	196	209	6	6	15	10	11000	11000	20022
	V450	178	131	216	229	6	6	15	10	11000	11000	20525
	V500	198	140	236	249	6	6	15	10	11000	11000	20701
	V550	218	150	256	269	6	6	15	10	11000	11000	20875
	V600	237	160	275	288	6	6	15	10	11000	11000	21050
V700	277	180	315	328	6	6	15	6	11000	10915	21394	
3-stage full free lift	TF/TS450	180	101	218	229	62	50	15	10	11000	11000	21006
	TF/TS500	199	227	238	248	70	58	15	10	11000	11000	21208
	TF/TS560	220	117	259	269	78	66	15	10	11000	10805	21453
	TF/TS600	239	125	277	288	86	74	15	10	10805	10584	21647

## Mast Specification (70D-9) Standard: Hook-On Type Fork & Carriage

Mast Type	Maximum Fork Height	Overall Height				Free Lift		Tilt Angle		Load Capacity Without Side Shift At 24 in LC	Load Capacity with Side Shift At 24 in LC	Truck Weight Unloaded
		Lowered	Extended		Without Load Backrest	With Standard Load Backrest	Fwd	Rev				
			Without Load Backrest	With Standard Load Backrest								
in	in	in	in	in	in	deg	deg	lb	lb	lb		
2-stage limited free lift	V270	107	93	154	158	6	6	15	10	15500	15500	22798
	V300	119	99	166	170	6	6	15	10	15500	15500	22902
	V330	131	105	178	182	6	6	15	10	15500	15500	23008
	V350	139	109	185	190	6	6	15	10	15500	15500	23078
	V370	147	113	193	198	6	6	15	10	15500	15500	23149
	V400	159	119	205	209	6	6	15	10	15500	15500	23272
	V450	178	131	225	229	6	6	15	10	15500	15500	23773
	V500	198	140	245	249	6	6	15	10	15500	15500	23949
	V550	218	150	264	269	6	6	15	10	15500	15500	24123
	V600	237	160	284	288	6	6	15	10	15500	15500	24298
V700	277	180	323	328	6	6	15	6	15500	15500	24644	
3-stage full free lift	TF/TS450	180	101	227	229	54	50	15	10	15500	15500	24368
	TF/TS500	199	109	247	248	61	58	15	10	15500	15500	24571
	TF/TS560	220	117	268	269	69	66	15	10	15500	15215	24816
	TF/TS600	239	125	286	288	77	74	15	10	14994	14774	25010



# 50/70D-9

## Mast Specification (50D-9) Optional: Shaft Type Fork & Carriage

Mast Type	Maximum Fork Height	Overall Height				Free Lift		Tilt Angle		Load Capacity Without Side Shift At 24 in LC	Load Capacity With Side Shift At 24 in LC	Truck Weight Unloaded
		Lowered	Extended		Without Load Backrest	With Standard Load Backrest	Fwd	Rev				
			Without Load Backrest	With Standard Load Backrest								
in	in	in	in	in	in	deg	deg	lb	lb	lb		
2-stage limited free lift	V270	107	93	-	156	-	6	15	10	11000	-	19497
	V300	119	99	-	168	-	6	15	10	11000	-	19603
	V330	131	105	-	180	-	6	15	10	11000	-	19709
	V350	139	109	-	188	-	6	15	10	11000	-	19777
	V370	147	113	-	196	-	6	15	10	11000	-	19848
	V400	159	119	-	208	-	6	15	10	11000	-	19971
	V450	178	131	-	227	-	6	15	10	11000	-	20474
	V500	198	140	-	247	-	6	15	10	11000	-	20650
	V550	218	150	-	267	-	6	15	10	11000	-	20825
	V600	237	160	-	286	-	6	15	10	11000	-	20999
V700	277	180	-	328	-	6	15	6	11000	-	21343	
3-stage full free lift	TF/TS450	180	101	-	229	-	52	15	10	11000	-	20853
	TF/TS500	199	227	-	248	-	60	15	10	11000	-	21056
	TF/TS560	220	117	-	269	-	68	15	10	11000	-	21301
	TF/TS600	239	125	-	288	-	76	15	10	10805	-	21495

## Mast Specification (70D-9) Optional: Shaft Type Fork & Carriage

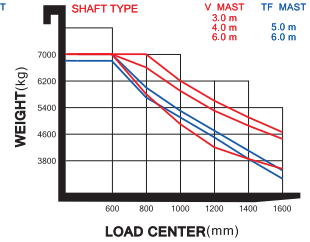
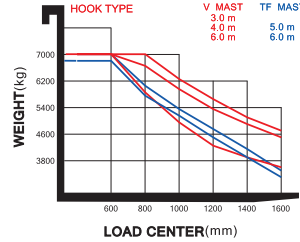
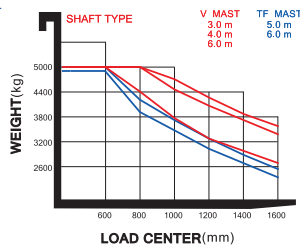
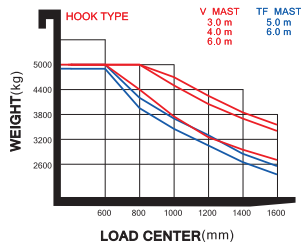
Mast Type	Maximum Fork Height	Overall Height				Free Lift		Tilt Angle		Load Capacity Without Side Shift At 24 in LC	Load Capacity With Side Shift At 24 in LC	Truck Weight Unloaded
		Lowered	Extended		Without Load Backrest	With Standard Load Backrest	Fwd	Rev				
			Without Load Backrest	With Standard Load Backrest								
in	in	in	in	in	in	deg	deg	lb	lb	lb		
2-stage limited free lift	V270	107	93	-	156	-	6	15	10	15500	-	22988
	V300	119	99	-	168	-	6	15	10	15500	-	23096
	V330	131	105	-	180	-	6	15	10	15500	-	23200
	V350	139	109	-	188	-	6	15	10	15500	-	23268
	V370	147	113	-	196	-	6	15	10	15500	-	23338
	V400	159	119	-	208	-	6	15	10	15500	-	23462
	V450	178	131	-	227	-	6	15	10	15500	-	23965
	V500	198	140	-	247	-	6	15	10	15500	-	24141
	V550	218	150	-	267	-	6	15	10	15500	-	24315
	V600	237	160	-	286	-	6	15	10	15500	-	24490
V700	277	180	-	328	-	6	15	6	15500	-	24745	
3-stage full free lift	TF/TS450	180	101	-	229	-	52	15	10	15500	-	24395
	TF/TS500	199	109	-	248	-	60	15	10	15500	-	24598
	TF/TS560	220	117	-	269	-	68	15	10	15500	-	24842
	TF/TS600	239	125	-	288	-	76	15	10	14994	-	25036

# New 9 Series

## Load capacity

50D-9

70D-9

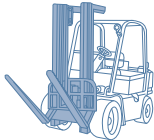


## Various Attachments

Side Shift



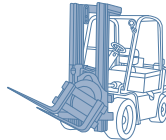
Hinged Fork



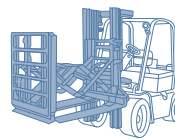
Hinged Bucket



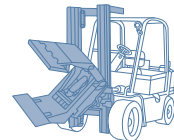
Rotating Fork



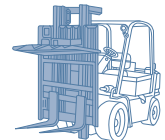
Push Pull



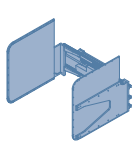
Rotating Roll Clamp



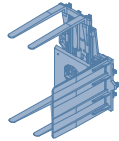
Load Stabilizer



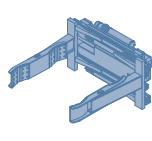
Carton Clamp



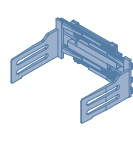
Pallet Invert



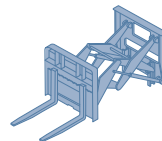
Drum Clamp



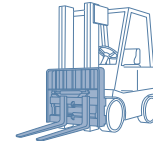
Bale Clamp



Load Extender



Fork Positioner



## Optional items

- **Fork (in)**

50/70D-9: 47 (standard), 53, 59, 71, 79, 91, 95

- **Overshoe (in)**

50D-9: 71, 79, 87, 91

70D-9: 71, 79, 87, 91

- **Integral side-shift, Integral fork positioner, Side-shift**

- **Tire: Solid (Superelastic) / Non-marking**

- **MCV: 2-spool, 3-spool, 5-spool**

- **Seat: Armrest, Heat, Backrest Ext., Buckle SW**

- **Weight indicator**

- **Rearview camera**

- **Cabin (heater & air conditioner)**

- **Battery disconnect switch (master switch)**

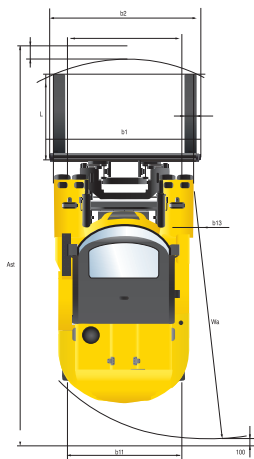
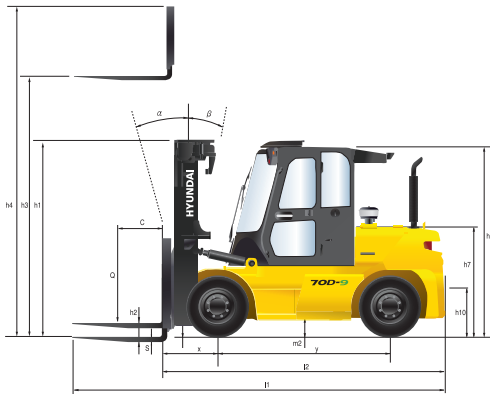
- **Beacon lamp (LED) (amber, red, blue)**

- **Rear work lamp**

- **Top wiper**

# 50/70D-9

## Dimensions



## Specification

Identification			
1.1	Manufacturer	Hyundai	Hyundai
1.2	Manufacturer's model designation	50D-9	70D-9
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas, manual	Diesel	Diesel
1.4	Type of operation: hand, pedestrian, standing, seated, order-picker	Seated	Seated
1.5	Load capacity / Rated load	lb 11,000	15,000
1.6	Load center distance	c in 24	24
1.8	Load distance, center of drive axle to fork	x in 24	24
1.9	Wheelbase	y in 91	91
Weights			
2.1	Service weight	lb 19,599	23,091
2.2	Axle loading, loaded front / rear	lb 26,793 / 3,730	33,347 / 5,011
2.3	Axle loading, unloaded front / rear	lb 9,941 / 9,557	9,758 / 13,166
Wheels, Chassis			
3.1	Tires: Pneumatic (P), Solid (S), Non-marking (N)	P	P
3.2	Tire size, front	8.25 x 15 - 14PR	8.25 x 15 - 14PR
3.3	Tire size, rear	8.25 x 15 - 14PR	8.25 x 15 - 14PR
3.4	Number of wheels front / rear (x = driven wheels)	4 x / 2	4 x / 2
3.5	Track width, front	in 62	62
3.6	Track width, rear	in 63	63
Basic Dimensions			
4.1	Mast / fork carriage tilt forward / backward ( $\alpha / \beta$ )	degrees 15 / 10	15 / 10
4.2	Lowered mast height	h1 (in) 99	99
4.3	Free lift	h2 (in) 6	6
4.4	Lift height	h3 (in) 119	119
4.5	Extended mast height	h4 (in) 168	168
4.7	Overhead guard height (cabin)	h6 (in) 102	102
4.8	Seat height / standing height rel. to SIP	h7 (in) 61	61
4.12	Coupling height	h10 (in) 17	17
4.19	Overall length	l1 (in) 186	192
4.20	Length to face of forks	l2 (in) 138	144
4.21	Overall width	b1 (in) 82	82
4.22	Fork dimensions (hook type)	s / e / l (in) 2.4 x 5.9 x 47	2.6 x 5.9 x 47
4.23	Fork carriage ISO 2328, class / type A, B	Class IV	Class IV
4.24	Fork carriage width	b3 (in) 81	81
4.31	Ground clearance, loaded, under mast	m1 (in) 7.7	7.7
4.32	Ground clearance, center of wheelbase	m2 (in) 7.8	7.8
4.33	Aisle width for pallets 40 x 48 crossways (L x W)	Ast (in) 202	207
4.34	Aisle width for pallets 32 x 48 lengthways (W x L)	Ast (in) 210	215
4.35	Turning radius	Wa (in) 130	135
4.36	Smallest pivot point distance	b13 (in) 48	48
Performance Data			
5.1	Travel speed, unloaded	mph 21	21
5.2	Lift speed, loaded / unloaded	ft / min 87 / 91	83 / 91
5.3	Lowering speed, loaded / unloaded	ft / min 98 / 89	98 / 89
5.5	Drawbar pull, loaded	lb 16,735	16,896
5.7	Gradient performance, loaded	% 58.7	44.4
5.9	Acceleration time, loaded / unloaded (10m)	sec -	-
5.10	Service brake	Foot (Hydraulic)	Foot (Hydraulic)
Engine			
6.1	Engine manufacturer / type	CUMMINS / QSF3.8	CUMMINS / QSF3.8
6.2	Engine power acc. to ISO 1585	hp / rpm 101 / 2,200	101 / 2,200
6.3	Maximum Torque	lb-ft / rpm 306 / 1,600	306 / 1,600
6.4	No. of cylinders / Displacement	EA / cc 4 / 3,800	4 / 3,800
6.5	Fuel consumption acc. To VDI cycle	ℓ/h 8.1	8.3
Other Details			
8.1	Type of drive control	Full Auto	Full Auto
8.2	Operating pressure, system / attach	bar 185 / 150	185 / 150
8.3	Oil volume (hydraulic)	ℓ 132	132
8.4	Sound pressure level (at driver's ear according to DIN 12053)	dB(A) 79.8	79.8
8.5	Trailer coupling, type DIN	Pin	Pin





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