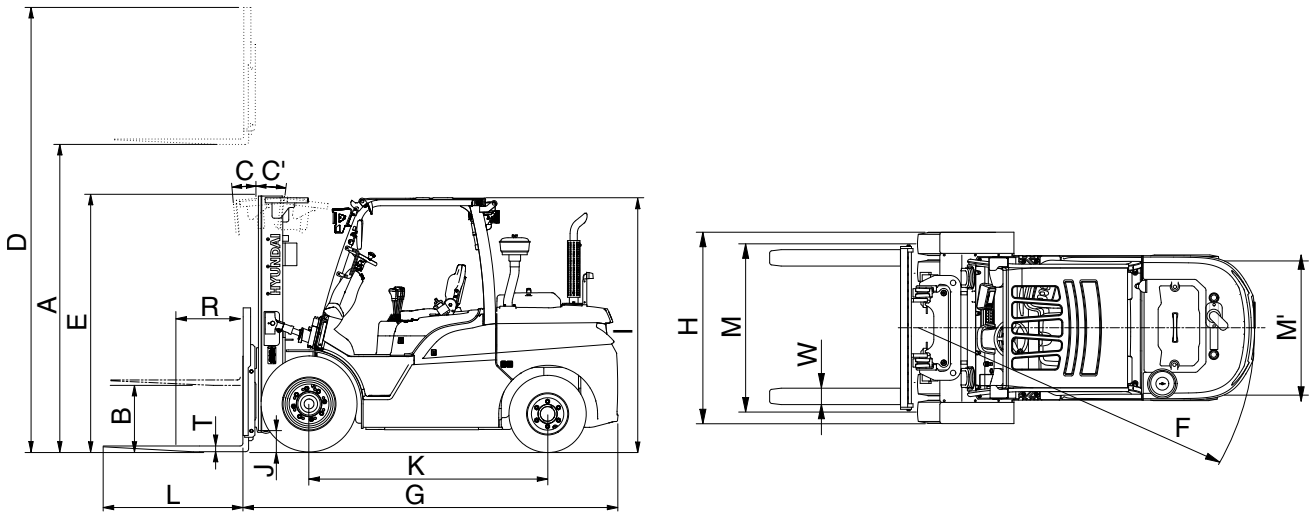


8. SPECIFICATIONS

1. SPECIFICATION TABLE

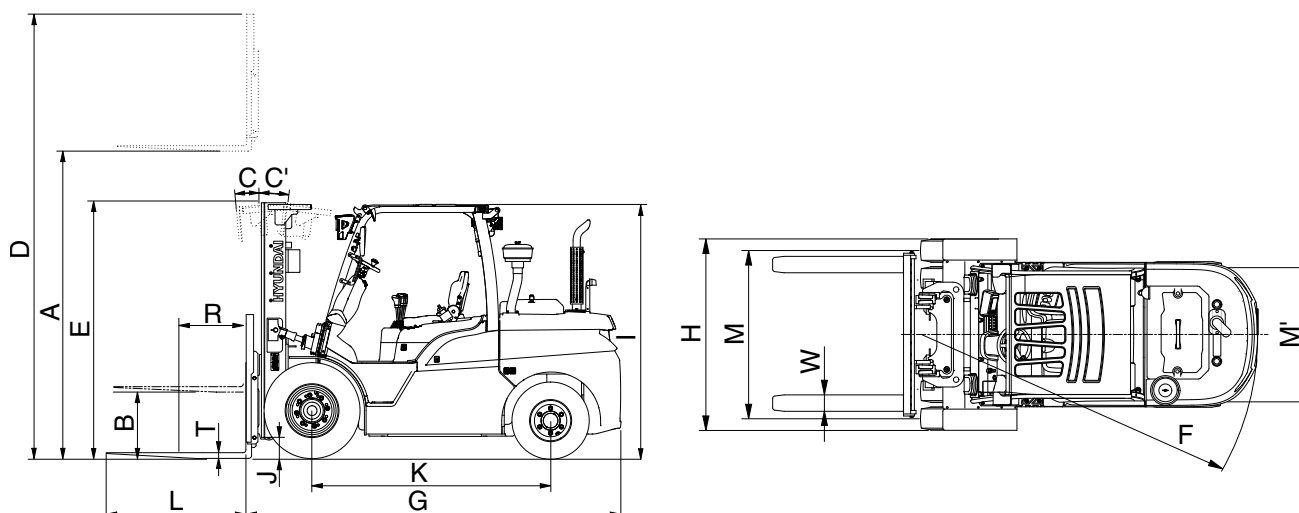
1) 35/40/45D-9VB, 50DN-9VB



35D9VB8SP01

Model			Unit	35D-9VB	40D-9VB	45D-9VB	50DN-9VB
Capacity			kg (lb)	3500 (8000)	4000 (9000)	4500 (10000)	5000 (11000)
Load center	R		mm (in)	600 (24")	←	←	←
Weight (Unloaded)			kg (lb)	5851 (12899)	6405 (14121)	6860 (15124)	7264 (16014)
Fork	Lifting height	A	mm (ft. in)	3020 (9' 11")	←	←	2930 (9' 7")
	Free lift	B	mm (in)	120 (4.7")	←	←	←
	Lifting speed (Unload/Load)		mm/sec (ft/min)	540/520 (106/102)	540/510 (106/100)	←	460/410 (91/81)
	Lowering speed (Unload/Load)		mm/sec (ft/min)	550/550 (109/108)	←	←	500/550 99/109
	L × W × T	L, W, T	mm (in)	1070 × 122 × 50 (42 × 4.8 × 2)	1070 × 150 × 50 (42 × 5.9 × 2)	1220 × 150 × 50 (48 × 5.9 × 2)	1200 × 150 × 60 (47 × 5.9 × 2.4)
Mast	Tilt angle (forward/backward)	C/C'	degree	8/10	←	←	←
	Max height	D	mm (ft. in)	4234 (13' 11")	←	←	4147 (13' 7")
	Min height	E	mm (ft. in)	2235 (7' 4")	2220 (7' 3")	←	←
Body	Travel speed (Unload/Load)		km/h (mph)	29.2/26.8 (18.2/16.6)	28.4/26.5 (17.6/16.4)	28.2/26.1 (17.5/16.6)	28.1/25.8 (17.5/16.0)
	Max gradeability (Unload/Load)		%	25.1/44.5	24.1/39.2	23.4/35.4	22.3/32.6
	Min turning radius (Outside)	F	mm (ft. in)	2895 (9' 6")	2944 (9' 8")	3038 (10')	3081 (10' 1")
ETC	System set pressure		bar (psi)	210 (3050)	←	←	←
Length to face of forks			G	mm (ft. in)	3149 (10' 4")	3204 (10' 6")	3284 (10' 9")
Overall width			H	mm (ft. in)	1370 (4' 6")	1746 (5' 9")	←
Overhead guard height			I	mm (ft. in)	2230 (7' 4")	2220 (7' 3")	←
Ground clearance			J	mm (in)	170 (6.7")	155 (6.1")	←
Wheel base			K	mm (ft. in)	2030 (6' 8")	←	2100 (6' 11")
Wheel tread front/rear			M/M'	mm (ft. in)	1132/1140 (3' 9"/3' 9")	1282/1140 (4' 2"/3' 9")	←
Max drawbar pull (Unload/Load)			kg (lb)	4223/4017 (9311/8856)	4218/4121 (9300/9086)	4221/4113 (9306/9068)	4226/4104 (9317/9048)

2) 40/45D-9VC, 50DN-9VC



35D9VB8SP01

Model			Unit	40D-9VC	45D-9VC	50D-9VC
Capacity			kg (lb)	4000 (9000)	4500 (10000)	4990 (11000)
Load center		R	mm (in)	500 (20")	←	←
Weight (Unloaded)			kg (lb)	5851 (12899)	6405 (14121)	6860 (15124)
Fork	Lifting height	A	mm (ft. in)	3020 (9' 11")	←	←
	Free lift	B	mm (in)	120 (4.7")	←	←
	Lifting speed (Unload/Load)		mm/sec (ft/min)	540/520 (106/102)	540/510 (106/100)	←
	Lowering speed (Unload/Load)		mm/sec (ft/min)	550/550 (109/108)	←	←
	L × W × T	L, W, T	mm (in)	1070 × 122 × 50 (42 × 4.8 × 2)	1070 × 150 × 50 (42 × 5.9 × 2)	1220 × 150 × 50 (48 × 5.9 × 2)
Mast	Tilt angle (forward/backward)	C/C'	degree	8/10	←	←
	Max height	D	mm (ft. in)	4234 (13' 11")	←	←
	Min height	E	mm (ft. in)	2235 (7' 4")	2220 (7' 3")	←
Body	Travel speed (Unload/Load)		km/h (mph)	29.2/26.8 (18.2/16.6)	28.4/26.5 (17.6/16.4)	28.2/26.1 (17.5/16.6)
	Max gradeability (Unload/Load)		%	25.1/44.5	24.1/39.2	23.4/35.4
	Min turning radius (Outside)	F	mm (ft. in)	2895 (9' 6")	2944 (9' 8")	3038 (10')
ETC	System set pressure		bar (psi)	210 (3050)	←	←
Length to face of forks		G	mm (ft. in)	3149 (10' 4")	3204 (10' 6")	3284 (10' 9")
Overall width		H	mm (ft. in)	1370 (4' 6")	1746 (5' 9")	←
Overhead guard height		I	mm (ft. in)	2230 (7' 4")	2220 (7' 3")	←
Ground clearance		J	mm (in)	170 (6.7")	155 (6.1")	←
Wheel base		K	mm (ft. in)	2030 (6' 8")	←	2100 (6' 11")
Wheel tread front/rear		M/M'	mm (ft. in)	1132/1140 (3' 9"/3' 9")	1282/1140 (4' 2"/3' 9")	←
Max drawbar pull (Unload/Load)			kg (lb)	4223/4017 (9311/8856)	4218/4121 (9300/9086)	4221/4113 (9306/9068)

2. SPECIFICATION FOR MAJOR COMPONENTS

1) ENGINE

Item	Unit	Specification
Model	—	HMC D4CC
Type	—	Vertical, 4 cycle DI, EU Stage V diesel engine
Cooling Method	—	Water cooling
Number of cylinders and arrangement	—	4 cylinders, In-line
Firing order	—	1-3-4-2
Combustion chamber type	—	Direct injection
Cylinder bore X stroke	mm (in)	95 × 102 (3.74 × 4.02)
Piston displacement	cc (cu in)	2891 (176.4)
Compression ratio	—	15.8 :1
Rated gross horse power	hp/rpm	73.2/2200
Maximum torque at rpm	kgf · m/rpm	34.5/1500
Engine oil quantity	ℓ (U.S.gal)	9.1 (2.4)
Dry weight	kg (lb)	266 (586)
High idling speed	rpm	2450
Low idling speed	rpm	850
Rated fuel consumption	g/kWh	207
Starting motor	V-kW	12-2.0
Alternator	V-A	13.5-130
Battery	V-AH	12-100
Fan belt deflection	mm (in)	10~12 (0.40~0.47)
CO ₂	g/kWh	594.2

※ This CO₂ measurement results from testing over a fixed test cycle under laboratory conditions a(n) (parent) engine representative of the engine type (engine family) and shall not imply or express any guarantee of the performance of a particular engine.

2) MAIN PUMP

Item	Unit	Specification
Type	—	Axial piston variable pump
Capacity	cc/rev (in ³ /rev)	45 (2.75)
Maximum operating pressure	bar (psi)	280 (4060)
Engine idling speed (High/Low)	rpm	2450/850
Weight	kgf (lbf)	15 (33)

3) MAIN CONTROL VALVE

Item	Unit	Specification
Type	—	Mono-block (3spool / 4spool / 5spool)
Operating method	—	Manual (hand lever)
Maximum flow rated (Lift/Tilt)	lpm (US. gpm)	110/40 (29/11)
Main relief valve set pressure (DV1)	bar (psi)	210 (3050)
Attachment oil flow rated (Aux1/2/3)	lpm (US. gpm)	60/60/60 (16/16/16)
Attachment relief valve pressure (DV2)	bar (psi)	140~180 (2030~2610)
Weight	kgf (lbf)	3spool : 11 (24) / 4spool : 13 (29) 5spool : 15 (33)

4) FINGERTIP CONTROL VALVE (ECV, option)

Item	Unit	Specification
Type	—	Mono-block (4spool)
Operating method	—	Electro-Hydraulic control
Maximum flow rated (Lift/Tilt)	lpm (US. gpm)	110/40 (29/11)
Main relief valve set pressure (DV1)	bar (psi)	210 (3050)
Attachment oil flow rated (Aux1/2)	lpm (US. gpm)	45/45 (12/12)
Attachment relief valve pressure (DV2)	bar (psi)	140~180 (2030~2610)
Weight	kgf (lbf)	4spool : 14 (31)

5) STEERING UNIT

Item	Unit	Specification
Type	—	Load sensing, Non-load reaction
Capacity	cc/rev (in ³ /rev)	125 (7.63)
Steering relief valve set pressure	bar (psi)	135 (1960)
Weight	kgf (lbf)	5.5 (12)

6) PRIORITY VALVE

Item	Unit	Specification
Type	—	Load sensing, dynamic signal
Rated input flow	lpm (US.gpm)	150 (40)
Max. inlet and EF Pressure	bar (psi)	310 (4500)
Max. CF Pressure	bar (psi)	276 (4000)
Weight	kgf (lbf)	6 (13)

7) POWER TRAIN DEVICES

Item			Specification	
Torque converter	Model		AEROSPACE	
	Type		3 Element, 1 stage, 2 phase	
	Stall ratio		2.21 : 1	
Transmission	Type		Power shift	
	Gear shift(FWD/REV)		2/1	
	Control		Electrical single lever type	
	Overhaul ratio	FWD	1st : 2.667	2nd : 1.024
		REV	1.838	
Axle	Type		Front-wheel drive type, fixed location	
	Gear ratio		11.692	
Wheels	Q'ty(FR/RR)		Single : 2/2, Double : 4/2	
	Front(drive)	Single	8.25-15-14 PR	
		Double	7.50-16-12 PR	
	Rear(steer)		7.00-12-14 PR	
Brakes	Travel		Front wheel, wet disk brake	
	Parking		SAHR (Spring Actuate Hydraulic Release) type	
Steering	Type		Full hydraulic, power steering	
	Steering angle		74.8° to both right and left angle, respectively	
	Relief valve presssure		135 bar (1960 psi)	

3. TIGHTENING TORQUE

NO	Item		Size	kgf · m	lbf · ft
1	Engine	Engine mounting bolt	M10×1.25	7.4±1.4	53.7±10.7
2		Engine bracket mounting nut	M10×1.5	6.9±1.4	49.9±10.1
3		Radiator mounting bolt, nut	M10×1.5	6.9±1.4	49.9±10.1
4	Hydraulic system	Hydraulic pump mounting bolt	M14×1.5	7.0±0.5	51±3.6
5		MCV mounting bolt	M 8×1.25	2.5±0.5	18.1±3.6
6		PF valve mounting bolt	M 8×1.25	2.5±0.5	18.1±3.6
7		Steering unit mounting bolt	M10×1.5	4.0±0.5	28.9±3.6
8		Priority valve mounting bolt, nut	M 8×1.25	2.5±0.5	18.1±3.6
9		Tilt cylinder; rod-end bolt, nut	M14×2.0	15±1.5	147±14
10		Tilt cylinder pin; mounting bolt	M10×1.5	4.0±1.5	28.9±3.6
11	Power train system	Transmission mounting bolt, nut	M16×2.0	7.5±1.5	54.2±10.8
12		Torque converter mounting bolt	M10×1.5	6.9±1.4	50±10
13		Drive axle mounting bolt, nut	M24×2.0	62.5±9.5	452±68.7
14		Drive shaft mounting bolt	3/8-24 UNF	7.0±0.7	50.6±5.1
15		Steering axle mounting bolt, nut	M14×2.0	19.6±2.9	142±21
16		Front wheel mounting nut	M22×1.5	62.0±9.3	448±67.3
17		Rear wheel mounting nut	M22×1.5	62.0±9.3	448±67.3
18	Others	Counterweight mounting bolt	M30×3.5	100±15	723±108
19		Operator's seat mounting nut	M 8×1.25	2.5±0.5	18.1±3.6
20		Head guard mounting bolt	M12×1.75	12.8±3.0	92.6±21.7
21		Cabin mounting bolt	M12×1.75	12.8±3.0	92.6±21.7