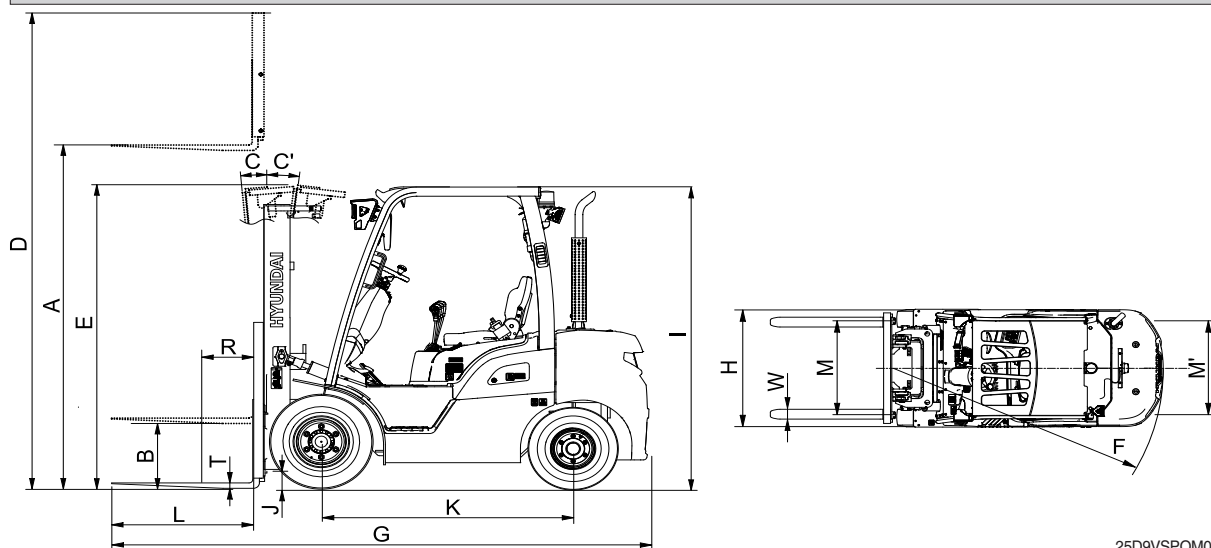


8. SPECIFICATIONS

1. SPECIFICATION TABLE



25D9VSPOM01

Model			Unit	25D-9V/VS	30D-9V/VS	35DN-9V/VS
Load Capacity			kg (lb)	2500 (5000)	3000 (6000)	3500 (7000)
Load center		R	mm (in)	500 (24")	←	←
Service Weight			kg (lb)	3871 (85340)	4300 (9480)	4616 (10176)
Fork	Lifting height	A	mm (in)	3305 (130.11)	←	←
	Free lift	B	mm (in)	155 (6.1)	←	←
	Lifting speed (Unload/Load)	Brake, non-booster type	mm/sec (ft/min)	610/580 (120/114)	←	500/480 (98/94)
		Brake, Booster type	mm/sec (ft/min)	580/550 (114/108)	←	470/450 (93/89)
	Lowering speed (Unload/Load)		mm/sec (ft/min)	500/510 (99/101)	500/550 (99/109)	480/510 (95/101)
	L × W × T	L, W, T	mm (in)	1050×100×45 (41.3×3.9×1.8)	1050×122×45 (41.3×4.8×1.8)	←
Mast	Tilt angle (forward/backward)	C/C'	degree	6/10	←	←
	Max height	D	mm (in)	4485 (176.57)	←	←
	Min height	E	mm (in)	2175 (85.62)	2190 (86.22)	2260 (88.97)
Body	Travel speed (Loaded/Unloaded)		km/h	16.4/17.7	17.2/18.8	16.9/18.8
	Gradeability (Load/Unloaded)		%	42.7/21.5	34.1/20.1	30.6/17.7
	Min turning radius (Outside)	F	mm (in)	2352 (92.6)	2427 (95.6)	2480 (97.6)
ETC	System Set Pressure		bar (psi)	★175 (2540) 200 (2900)	200 (2900)	←
	Hydraulic oil tank		ℓ (usgal)	36 (9.5)	38 (10)	←
	Fuel tank		ℓ (usgal)	61(16.1)	←	←
Overall length		G	mm (in)	3672 (144.56)	3751 (147.67)	3816 (150.23)
Overall width		H	mm (in)	1200 (47.2)	1230 (48.4)	1230 (48.4)
Overhead guard height		I	mm (in)	2160 (85.0)	2180 (85.83)	2180 (85.83)
Ground clearance		J	mm (in)	130 (5.11)	145 (5.7)	←
Wheel base		K	mm (in)	1650 (65)	1700 (66.98)	←
Wheel tread front/rear		M/M'	mm (in)	999/980 (39.3/38.6)	1005/980 (3' 6"/3' 3")	←
MAX. Drawbar pull(Unloaded/Loaded)			N	27,399/25,957	25,777/24,257	26,016/24,162

★ : EU, AN corporate sales equipment

2. SPECIFICATION FOR MAJOR COMPONENTS

※ ENGINE

Item	Unit	Specification
Model	—	HMC D4HB
Type	—	Vertical, water-cooled, 4-cycle diesel
Cooling Method	—	Water cooling
Number of cylinders and arrangement	—	4 cylinders, in-line
Firing order	—	1-3-4-2
Combustion type	—	Common Rail Direct Injection
Cylinder bore X stroke	mm (in)	85.4 × 96 (3.36 × 3.78)
Piston displacement	cc (cu in)	2199 (134.2)
Compression ratio	—	16
Rated gross horse power	ps/rpm	65/2300
Maximum gross torque at rpm	kgf · m/rpm	24.1/1600
Engine oil quantity	ℓ (U.S.gal)	★6.3 (1.66) 8.2 (2.16)
Dry weight	kg (lb)	210 (463)
High idling speed	rpm	2450
Low idling speed	rpm	850
Rated fuel consumption (2300rpm)	g/ps.hr	166.2
Starting motor	V-kW	12-2
Alternator	V-A	13.5-90
Battery	V-AH	12-72
CO2	g/kWh	750.4

★ : Machine serial No. 25D-9V : -#0029, 30D-9V : -#0028, 35DN-9V : -#0040

※ MAJOR HYDRAULIC COMPONENT

Item	Index			Unit	Specification	
Hydraulic pump	Type			-	External gear pump	
	Manufacture			-	Shimadzu	
	Capacity			cm³/rev (in³/rev)	30.6 (1.87)	
	Maximum operating pressure			bar (psi)	276	
	Rated speed (max./min.)			rpm	3000/500	
	Weight			kgf (lbf)	6 (13.2)	
Manual Control Valve (MCV)	Type			-	Mono-block (3spool / 4spool)	
	Manufacturer			-	Buchholz	
	Operating method			-	Manual (Hand lever)	
	Maximum flow rated (Lift/Tilt)			lpm (US.gpm)	76/30 (20/8)	
	Main relief valve set pressure (DV1)			bar (psi)	200 (2900)	★175 (2540)
	Attachment oil flow rated (Aux1/2)			lpm (US.gpm)	55/55 (14.5/14.5)	
	Attachment relief valve pressure (DV2)			bar (psi)	140~180 (2030~2610)	
	Weight			kgf (lbf)	3spool: 11 (24), 4spool: 13 (29)	
Fingertip Control Valve	Type			-	Mono-block (4 spool)	
	Manufacturer			-	Buchholz	
	Operating method			-	Electro-Hydraulic control	
	Maximum flow rated (Lift/Tilt)			lpm (US.gpm)	76/30 (20/8)	
	Main relief valve set pressure (DV1)			bar (psi)	200 (2900)	★175 (2540)
	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)	
Cylinders	Main lift (V330)	2.5/ 3.0t	Tube bore dia x Rod dia x Stroke	mm x mm x mm [kgf / lbf]	50 x 40 x 163 [31 / 68]	
	Main lift (TF430)				50 x 40 x 139.7 [33 / 73]	
	Free lift (TF430)				75 x 50 x 73.3 [28 / 62]	
	Main lift (V330)	3.5t			55 x 45 x 163 [36 / 79]	
	Main lift (TF430)				55 x 45 x 137.5 [38 / 84]	
	Free lift (TF430)				85 x 60 x 73.3 [39 / 86]	
	Tilt (6/10 degree)				75 x 35 x 129 [20 / 44]	
	Steering				75 x 50 x 86 [17 / 37]	
	Steering unit	Type			-	Load sensing, Non-load reaction
Manufacturer			-	Sauer Danfoss (VSP-125)		
Capacity			cm³/rev (in³/rev)	125 (7.63)		
Weight			kgf (lbf)	5.5 (12)		

★ : EU, AN corporate sales equipment (25D-9V/VS)

Item	Index	Unit	Specification
Priority Valve (Brake, non-booster type)	Type	-	Load sensing, Dynamic signal
	Manufacturer	-	Eaton (VLC-60)
	Rated input flow	lpm (US.gpm)	60 (16)
	Max. inlet and EF Pressure	bar (psi)	241 (3495)
	Max. CF Pressure	bar (psi)	190 (2755)
	Steering relief valve set pressure	bar (psi)	100 (1450)
	Weight	kgf (lbf)	5.5 (12)
Dual Flow Divider valve (Brake, booster type)	Type	-	Load sensing, Dynamic signal
	Manufacturer	-	Parker
	Rated input flow	lpm (US.gpm)	76 (20)
	Brake flow control	lpm (US.gpm)	4 (1)
	Max. inlet and EF Pressure	bar (psi)	241 (3495)
	Max. CF Pressure	bar (psi)	190 (2755)
	Steering relief valve set pressure	bar (psi)	100 (1450)
	Weight	kgf (lbf)	7 (15.4)

※ POWER TRAIN DEVICES

Item			Specification
Torque converter	Model		KAPEC 280 DJ
	Type		3 Element, 1 stage, 2 phase
	Stall ratio		2.87
Transmission	Type		Power shift
	Gear shift(FWD/REV)		1/1
	Control		Electric Proportional Solenoid Valve (Controlled by TCU) ★Electric On/Off Solenoid Valve
	Overhaul ratio	FWD	1.437
		REV	1.437
Axle	Type		Front-wheel drive type, fixed location
	Gear ratio		11.568 : 1
	Gear		Spiral bevel gear type
Wheels	Q'ty (FR/RR)		Single : 2/2, Double : 4/2
	Front (drive)	2.5 T	Single : 7.00-12-12 PR, Double : 6.00-15-10 PR(~#154), 7.00-12 12PR(#155~)
		3.0 T	Single : 8.15-15-14 PR
		3.5 T	Double : 6.00-15-10 PR(~#154), 7.00-12 12PR(#155~)
	Rear (steer)	2.5 T	6.50-10-12 PR
		3.0 T	
		3.5 T	
Brakes	Travel		Front wheel, wet disk brake
	Parking		Wet disk (negative brake)
Steering	Type		Full hydraulic, power steering
	Steering angle		78.9° to both right and left angle, respectively

★ : 25/30D-9VS, 35DN-9VS

3. TIGHTENING TORQUE

No.	Items		Size	kgf·m	lbf·ft
1	Engine	Engine mounting nut (bracket-engine mount)	M12×1.25	9.7±1.9	70.0±13.7
2		Engine mounting bolt (engine-bracket)	M10×1.25	7.4±1.5	53.5±10.0
3		Radiator mounting nut	M10×1.5	5.0±1.0	36.2±7.2
4		Torque converter mounting bolt (8EA)	M10×1.25	7.4±1.5	53.5±10.0
5	Hydraulic system	Pump mounting bolt	M10×1.5	5.3±0.5	38.3±3.6
6		MCV mounting bolt	M8×1.25	4.0±0.5	28.9±3.6
7		PF valve mounting bolt	M8×1.25	2.5±0.5	18.1±3.6
8		Steering unit mounting bolt	M10×1.5	4.0±0.5	28.9±3.6
9		Priority valve mounting bolts/nuts	M8×1.25	2.5±0.5	18.1±3.6
10		Tilt cylinder; rod-end bolts/nuts	M14×2.0	15.0±0.5	147±14
11		Tilt cylinder pin; mounting bolts	M10×1.5	4.0±0.5	28.9±3.6
12	Power train system	Transmission mounting bolt, nut	M16×2.0	7.5	54.0
13		Drive axle mounting bolt, nut	M20×1.5	65.0±3.0	470±21.0
14		Steering axle mounting bolt	M20×2.5	58.0±8.5	420±61.0
15		Front wheel mounting nut	3/4-16UNF	40.0±10.0	289±72.0
16		Rear wheel mounting nut	M16×1.5	18.0±2.0	130±14.0
17	Others	Counterweight mounting bolt	M30×3.5	100±15.0	723±108.0
18		Operator's seat mounting nut	M 8×1.25	2.5±0.5	18.1±3.6
19		Head guard mounting bolt, nut	M12×1.75	12.3±1.2	89.0±8.7