

MAST SPECIFICATION and RATED CAPACITIES

Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities								
					D30S-9								
					Tilt Angle			Load Capacities					
					Single Pneu.		Double Pneu		Single Solid		Single Pneu.	Double Pneu	Single Solid
					FWD	BWD	FWD	BWD	FWD	BWD	LC 500mm	LC 500mm	LC 500mm
	mm	mm	mm	mm	deg	deg	deg	deg	deg	deg	kg	kg	kg
STD	2,030	1,580	3,280	152	6	10	6	10	6	10	3,000	3,000	3,000
	2,950	2,040	4,200	152	6	10	6	10	6	10	3,000	3,000	3,000
	3,230	2,180	4,480	152	6	10	6	10	6	10	3,000	3,000	3,000
	3,500	2,430	4,755	152	6	10	6	10	6	10	3,000	3,000	3,000
	3,800	2,580	5,055	152	6	10	6	10	6	10	3,000	3,000	3,000
	3,950	2,655	5,205	152	6	10	6	10	6	10	3,000	3,000	3,000
	4,350	2,855	5,605	152	6	8	6	10	6	10	3,000	3,000	3,000
	4,500	2,930	5,755	152	6	5	6	10	6	10	3,000	3,000	3,000
	4,960	3,155	6,205	152	6	3	6	10	6	10	2,750	3,000	3,000
FF	2,950	2,040	4,200	840	6	10	6	10	6	10	3,000	3,000	3,000
	3,230	2,180	4,480	980	6	10	6	10	6	10	3,000	3,000	3,000
	3,600	2,430	4,855	1,230	6	10	6	10	6	10	3,000	3,000	3,000
FFT	2,950	1,590	4,210	390	6	8	6	8	6	8	3,000	3,000	3,000
	3,900	1,905	5,155	705	6	8	6	8	6	8	3,000	3,000	3,000
	4,240	2,015	5,485	815	6	8	6	8	6	8	3,000	3,000	3,000
	4,290	2,040	5,560	840	6	8	6	8	6	8	3,000	3,000	3,000
	4,730	2,180	5,980	980	6	3	6	8	6	8	3,000	3,000	3,000
	4,805	2,205	6,055	1,005	6	3	6	8	6	8	3,000	3,000	3,000
	4,930	2,280	6,180	1,080	6	3	6	8	6	8	2,650	3,000	3,000
	5,110	2,380	6,355	1,180	6	3	6	8	6	8	2,500	3,000	3,000
	5,170	2,350	6,420	1,150	6	3	6	8	6	8	2,300	3,000	3,000
	5,560	2,530	6,805	1,330	6	3	6	8	6	5	2,000	2,975	3,000
	6,010	2,680	7,255	1,480	6	3	6	5	6	3	1,500	2,850	2,950
	6,290	2,850	7,540	1,650	6	3	6	5	6	3	1,200	2,800	2,600
	6,500	2,920	7,750	1,720	6	3	6	5	6	3	1,250	2,750	2,300
	6,910	3,055	8,155	1,855	6	3	6	3	6	3	825	2,650	1,800
	7,060	3,180	8,305	1,980	6	3	6	3	6	3	750	2,600	1,650
	7,360	3,280	8,605	2,080	6	3	6	3	6	3	625	2,200	1,375
	7,510	3,330	8,755	2,130	6	3	6	3	6	3	550	2,050	1,275
	7,810	3,430	9,055	2,230	6	3	6	3	6	3	450	1,800	1,075

Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities								
					D33S-9								
					Tilt Angle			Load Capacities					
					Single Pneu.		Double Pneu		Single Solid		Single Pneu.	Double Pneu	Single Solid
					FWD	BWD	FWD	BWD	FWD	BWD	LC 500mm	LC 500mm	LC 500mm
	mm	mm	mm	mm	deg	deg	deg	deg	deg	deg	kg	kg	kg
STD	2,030	1,580	3,280	152	6	10	6	10	6	10	3,250	3,250	3,250
	2,950	2,040	4,200	152	6	10	6	10	6	10	3,250	3,250	3,250
	3,230	2,180	4,480	152	6	10	6	10	6	10	3,250	3,250	3,250
	3,500	2,430	4,755	152	6	10	6	10	6	10	3,250	3,250	3,250
	3,800	2,580	5,055	152	6	10	6	10	6	10	3,250	3,250	3,250
	3,950	2,655	5,205	152	6	10	6	10	6	10	3,250	3,250	3,250
	4,350	2,855	5,605	152	6	5	6	10	6	10	3,250	3,250	3,250
	4,500	2,930	5,755	152	6	5	6	10	6	10	3,100	3,250	3,250
	4,960	3,155	6,205	152	6	3	6	10	6	8	2,700	3,250	3,250
FF	2,950	2,040	4,200	840	6	10	6	10	6	10	3,250	3,250	3,250
	3,230	2,180	4,480	980	6	10	6	10	6	10	3,250	3,250	3,250
	3,600	2,430	4,855	1,230	6	10	6	10	6	10	3,250	3,250	3,250
FFT	2,950	1,590	4,210	390	6	8	6	8	6	8	3,250	3,250	3,250
	3,900	1,905	5,155	705	6	8	6	8	6	8	3,250	3,250	3,250
	4,240	2,015	5,485	815	6	8	6	8	6	8	3,250	3,250	3,250
	4,290	2,040	5,560	840	6	5	6	8	6	8	3,250	3,250	3,250
	4,730	2,180	5,980	980	6	3	6	8	6	8	3,150	3,250	3,250
	4,805	2,205	6,055	1,005	6	3	6	8	6	8	3,000	3,250	3,250
	4,930	2,280	6,180	1,080	6	3	6	8	6	8	2,600	3,250	3,250
	5,110	2,380	6,355	1,180	6	3	6	8	6	8	2,500	3,200	3,250
	5,170	2,350	6,420	1,150	6	3	6	8	6	8	2,250	3,175	3,150
	5,560	2,530	6,805	1,330	6	3	6	8	6	5	2,000	3,075	3,200
	6,010	2,680	7,255	1,480	6	3	6	5	6	3	1,600	2,975	3,050
	6,290	2,850	7,540	1,650	6	3	6	3	6	3	1,250	2,900	2,575
	6,500	2,920	7,750	1,720	6	3	6	3	6	3	1,200	2,850	2,250
	6,910	3,055	8,155	1,855	6	3	6	3	6	3	900	2,750	1,750
	7,060	3,180	8,305	1,980	6	3	6	3	6	3	850	2,550	1,600
	7,360	3,280	8,605	2,080	6	3	6	3	6	3	650	2,200	1,350
	7,510	3,330	8,755	2,130	6	3	6	3	6	3	600	2,050	1,225
	7,810	3,430	9,055	2,230	6	3	6	3	6	3	550	1,750	1,025

Note: These load capacities are based on the standard chassis without side shifter.

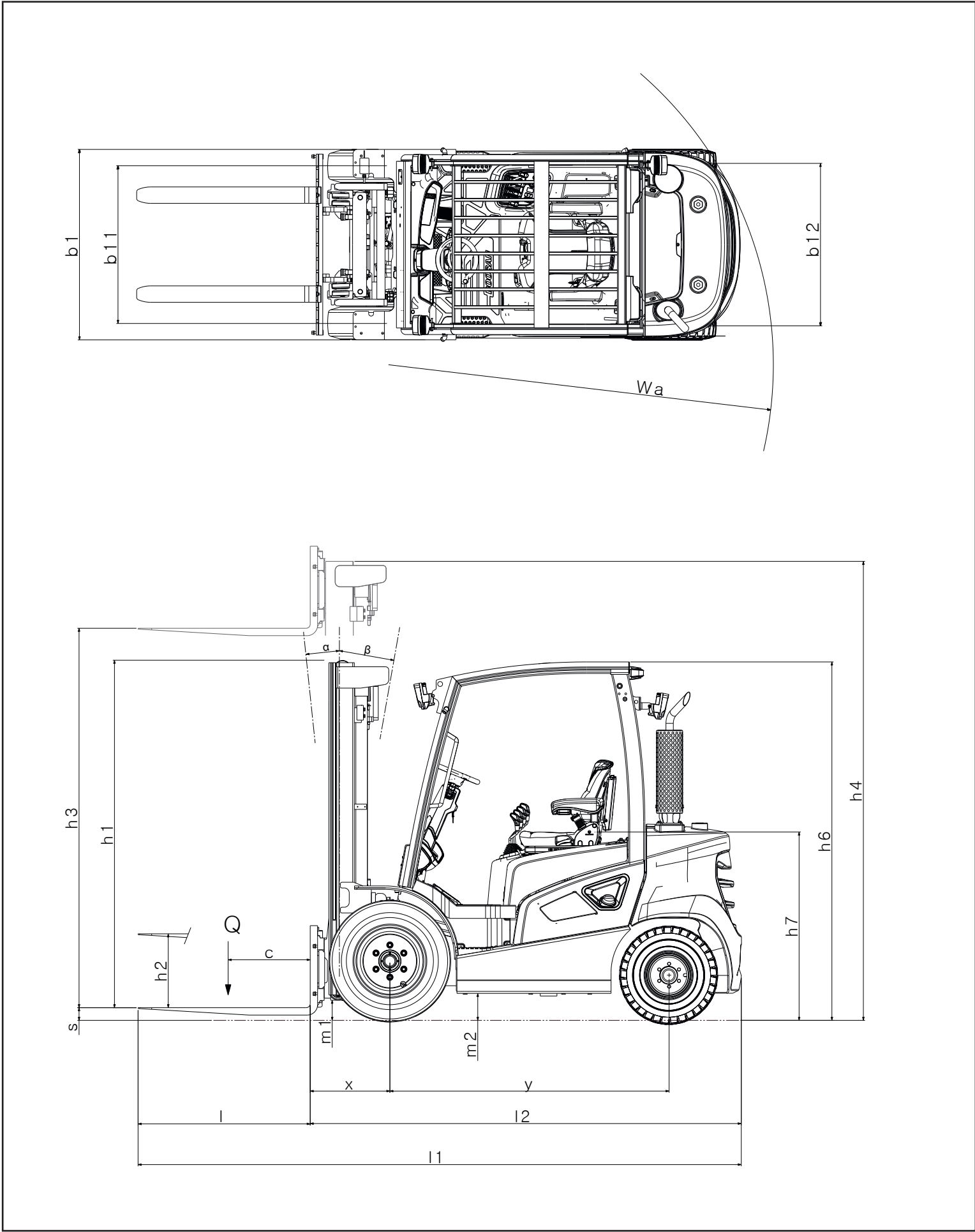
D35C-9														
Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities									
			With Load Backrest		With Load Backrest	D35C-9								
						Tilt Angle						Load Capacities		
						Single Pneu.		Double Pneu		Single Solid		Single Pneu.	Double Pneu	Single Solid
					FWD	BWD	FWD	BWD	FWD	BWD	LC 500mm	Double Pneu	Single Solid	
	mm	mm	mm	mm	deg	deg	deg	deg	deg	deg	deg	kg	kg	kg
STD	1,800	1,580	3,050	152	6	10	6	10	6	10	3,500	3,500	3,500	
	2,350	1,855	3,600	152	6	10	6	10	6	10	3,500	3,500	3,500	
	2,720	2,040	3,970	152	6	10	6	10	6	10	3,500	3,500	3,500	
	3,000	2,180	4,250	152	6	10	6	10	6	10	3,500	3,500	3,500	
	3,495	2,430	4,750	152	6	10	6	10	6	10	3,500	3,500	3,500	
	3,655	2,580	4,905	152	6	10	6	10	6	10	3,500	3,500	3,500	
	3,805	2,655	5,055	152	6	10	6	10	6	10	3,500	3,500	3,500	
	4,205	2,855	5,455	152	6	8	6	10	6	10	3,500	3,425	3,500	
	4,805	3,155	6,055	152	6	3	6	10	6	8	3,250	3,250	3,350	
	5,300	3,555	6,555	152	6	3	6	10	6	5	2,500	3,125	3,225	
FF	2,350	1,855	3,600	655	6	10	6	10	6	10	3,500	3,500	3,500	
	2,720	2,040	3,970	840	6	10	6	10	6	10	3,500	3,500	3,500	
	3,000	2,180	4,250	980	6	10	6	10	6	10	3,500	3,500	3,500	
	3,495	2,430	4,745	1,230	6	10	6	10	6	10	3,500	3,500	3,500	
FFT	3,555	1,905	4,805	705	6	8	6	8	6	8	3,400	3,400	3,400	
	3,960	2,040	5,210	840	6	8	6	8	6	8	3,400	3,400	3,400	
	4,380	2,180	5,630	980	6	5	6	8	6	8	3,400	3,350	3,400	
	4,580	2,280	5,830	1,080	6	3	6	8	6	8	3,350	3,275	3,400	
	4,820	2,350	6,070	1,150	6	3	6	8	6	8	3,250	3,225	3,325	
	5,205	2,530	6,455	1,330	6	3	6	8	6	5	2,800	3,125	3,225	
	5,655	2,680	6,905	1,480	6	3	6	5	6	3	2,200	3,000	3,125	
	6,150	2,920	7,400	1,720	6	3	6	3	6	3	1,600	2,900	2,700	
	6,555	3,055	7,805	1,855	6	3	6	3	6	3	1,200	2,825	2,050	
	6,900	3,245	8,150	2,045	6	3	6	3	6	3	900	2,750	1,625	

Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer				Doosan	Doosan	Doosan	Doosan	Doosan
	1.2	Model				D20S-9	D25S-9	D30S-9	D33S-9	D35C-9
	1.3	Drive				diesel	diesel	diesel	diesel	diesel
	1.4	Operator type				seated	seated	seated	seated	seated
	1.5	Load Capacity		Q	kg	2,000	2,500	3,000	3,250	3,500
Weight	1.6	Load Center		c	mm	500	500	500	500	500
	1.8	Load Distance: Center of Drive axle to fork		x	mm	480	480	485	485	495
	1.9	Wheelbase		y	mm	1,700	1,700	1,700	1,700	1,700
	2.1	Service weight			kg	3,830	4,030	4,530	4,615	4,720
Tyres	2.2	Axle Loading, loaded, front/rear			kg	4,977/853	5,724/806	6,518/1,012	6,892/973	7,302/918
	2.3	Axle Loading, unloaded, front/rear			kg	1,825/2,005	1,780/2,250	1,780/2,750	1,760/2,855	1,755/2,965
	3.1	Tyres: pneumatic (P). solid (E)				P/E	P/E	P/E	P/E	P/E
	3.2	Tyre size, Front				7.00X15-12	7.00X15-12	8.15X15-12	8.15X15-12	250x15-18
Dimensions	3.3	Tyre size, Rear				6.50X10-10	6.50X10-10	6.50X10-10	6.50X10-12	6.50X10-12
	3.5	Wheels, number Front/Rear (x = driven wheels)				2X/2	2X/2	2X/2	2X/2	2X/2
	3.6	Tread, Front		b11	mm	975	975	982	982	1,026
	3.7	Tread, Rear		b12	mm	990	990	990	990	990
Performance data	4.1	Tilt of Mast/Fork carriage Forward/Backward		α/β	°	6/10	6/10	6/10	6/10	6/10
	4.2	Height, Mast lowered		h1	mm	2,190	2,190	2,180	2,180	2,180
	4.3	Free Lift		h2	mm	147	147	152	152	152
		Maximum fork height		h3	mm	3,230	3,230	3,230	3,230	3,000
	4.5	Height, Mast Extended		h4	mm	4,490	4,490	4,490	4,490	4,260
	4.7	Height of Overhead Guard		h6	mm	2,183	2,183	2,183	2,183	2,183
	4.8	Height of Seat		h7	mm	1,026	1,026	1,026	1,026	1,026
	4.19	Overall Length		l1	mm	3,624	3,674	3,779	3,798	3,828
	4.20	Length to Forkface		l2	mm	2,574	2,625	2,730	2,749	2,779
	4.21	Overall Width		b1/b2	mm	1,170	1,170	1,197	1,197	1,255
	4.22	Fork Dimensions		s/e/l	mm	40X100X1,050	40X100X1,050	45X125X1,050	45X125X1,050	45X125X1,050
	4.23	Fork carriage ISO 2328, class/type A,B				II	II	III	III	III
	4.24	Fork carriage width		b3	mm	1,103	1,103	1,115	1,115	1,115
	4.31	Ground Clearance, loaded, below mast		m1	mm	115	115	105	105	105
	4.32	Ground Clearance, center of wheelbase		m2	mm	143	143	143	143	143
	4.34.1	Aisle width for pallets 1.000 x 1.200 crossways		Ast	mm	3,910	3,950	4,040	4,055	4,085
Addition Data	4.34.2	Aisle width for pallets 800 x 1.200 lengthways		Ast	mm	4,110	4,150	4,240	4,255	4,285
	4.35	External Turning Radius		Wa	mm	2,230	2,270	2,355	2,370	2,390
	4.36	Internal Turning Radius		b13	mm	640	640	641.5	641.5	652.5
Performance data	5.1	Travel Speed, loaded/unloaded			km/h	20/21	20/21	19/20	19/20	20/21
	5.2	Lift Speed, loaded/unloaded			m/s	0.61/0.65	0.60/0.65	0.59/0.65	0.51/0.56	0.50/0.56
	5.3	Lowering Speed, loaded/unloaded			m/s	0.51/0.45	0.51/0.45	0.51/0.45	0.51/0.45	0.51/0.45
	5.5	Drawbar pull, loaded/unloaded (@ 1.6km/h)			N	17,780/17,500	17,770/17,640	18,470/18,080	18,360/18100	17,380/17,070
Performance data	5.6	Max. Drawbar pull, loaded/unloaded			N	19,860/19,400	19,900/19,600	20,830/20,170	20,720/20,200	19,510/18,940
	5.7	Gradeability, loaded/unloaded (@ 1.6km/h)			%	33.6/55.2	28.7/49.3	25.7/44.1	24.1/42.2	22.3/40.4
	5.8	Max. Gradeability, loaded/unloaded			%	38.1/63.5	32.5/52.5	29.3/50.5	27.4/48.1	25.2/45.7
	5.10	Service Brake				foot/hydraulic	foot/hydraulic	foot/hydraulic	foot/hydraulic	foot/hydraulic
Combustion Engine	7.1	Engine Manufacturer/type				DI/DM02VA	DI/DM02VA	DI/DM02VA	DI/DM02VA	DI/DM02VA
	7.2	Engine power according to DIN ISO1585			kW	45.6	45.6	45.6	45.6	45.6
	7.3	Rated Speed			min-1	2,200	2,200	2,200	2,200	2,200
	7.3.1	Torque at 1/min			Nm/rpm	300/1,200-1,400	300/1,200-1,400	300/1,200-1,400	300/1,200-1,400	300/1,200-1,400
Addition Data	7.4	Number of Cylinders/Displacement			-/cm3	4/2,392	4/2,392	4/2,392	4/2,392	4/2,392
	7.5	Fuel Consumption according to VDI Cycle			l/h	2.8	3.4	3.8	3.9	4
	7.10	Battery Voltage/normal capacity			V/Ah	12/85	12/85	12/85	12/85	12/85
	10.1	Operating pressure for attachments			bar	156	156	156	156	156
Addition Data	10.2	Oil flow for attachments			l/min	76.5	76.5	76.5	76.5	76.5
	10.4	Fuel Tank Capacity			l	58	58	58	58	58
	10.7	Sound level at the driver's ear according to EN 12 053			dB(A)	75	75	75	75	75

Note: Specification values quoted in this specification sheet have been rounded. Performance may vary depending on operating conditions. Products and specifications are subject to improvement and change without prior notice.

DIMENSIONAL DRAWING



MAST SPECIFICATION and RATED CAPACITIES

D20S-9

Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities								
					D20S-9								
					Tilt Angle						Load Capacities		
					Single Pneu.		Double Pneu		Single Solid		Single Pneu.	Double Pneu	Single Solid
			With Load Backrest	With Load Backrest	FWD	BWD	FWD	BWD	FWD	BWD	LC 500mm	LC 500mm	LC 500mm
	mm	mm	mm	mm	deg	deg	deg	deg	deg	deg	kg	kg	kg
STD	2,030	1,590	3,280	147	6	10	6	10	6	10	2,000	2,000	2,000
	2,950	2,050	4,200	147	6	10	6	10	6	10	2,000	2,000	2,000
	3,230	2,190	4,480	147	6	10	6	10	6	10	2,000	2,000	2,000
	3,500	2,440	4,755	147	6	10	6	10	6	10	2,000	2,000	2,000
	3,800	2,590	5,055	147	6	10	6	10	6	10	2,000	2,000	2,000
	3,950	2,665	5,205	147	6	10	6	10	6	10	2,000	2,000	2,000
	4,350	2,865	5,605	147	6	10	6	10	6	10	2,000	2,000	2,000
	4,500	2,940	5,755	147	6	10	6	10	6	10	2,000	2,000	2,000
	4,960	3,165	6,205	147	6	5	6	10	6	10	2,000	2,000	2,000
FF	2,950	2,050	4,200	845	6	10	6	10	6	10	2,000	2,000	2,000
	3,230	2,190	4,480	985	6	10	6	10	6	10	2,000	2,000	2,000
	3,600	2,440	4,855	1,235	6	10	6	10	6	10	2,000	2,000	2,000
FFT	2,950	1,600	4,210	395	6	8	6	8	6	8	2,000	2,000	2,000
	3,900	1,915	5,155	710	6	8	6	8	6	8	2,000	2,000	2,000
	4,240	2,025	5,485	820	6	8	6	8	6	8	2,000	2,000	2,000
	4,290	2,050	5,560	845	6	8	6	8	6	8	2,000	2,000	2,000
	4,730	2,190	5,980	985	6	8	6	8	6	8	2,000	2,000	2,000
	4,805	2,215	6,055	1,010	6	8	6	8	6	8	2,000	2,000	2,000
	4,930	2,290	6,180	1,085	6	5	6	8	6	8	2,000	2,000	2,000
	5,110	2,390	6,355	1,185	6	5	6	8	6	8	2,000	2,000	2,000
	5,170	2,360	6,420	1,155	6	5	6	8	6	8	1,900	2,000	2,000
	5,560	2,540	6,805	1,335	6	3	6	8	6	8	1,750	2,000	2,000
	6,010	2,690	7,255	1,485	6	3	6	8	6	5	1,450	1,975	2,000
	6,290	2,860	7,540	1,655	6	3	6	8	6	5	1,150	1,925	1,850
	6,500	2,930	7,750	1,725	6	3	6	8	6	3	1,000	1,950	2,000
	6,910	3,065	8,155	1,860	6	3	6	8	6	3	825	1,875	1,600
	7,060	3,190	8,305	1,985	6	3	6	5	6	3	800	1,850	1,500
	7,360	3,290	8,605	2,085	6	3	6	5	6	3	650	1,775	1,275
	7,510	3,340	8,755	2,135	6	3	6	5	6	3	600	1,650	1,200
	7,810	3,440	9,055	2,235	6	3	6	3	6	3	500	1,750	1,025
Quad	6,100	2,190	7,355	985	6	3	6	5	6	3	1,275	1,550	1,600
	6,640	2,390	7,895	1,185	6	3	6	5	6	3	925	1,475	1,525
	7,035	2,490	8,295	1,285	6	3	6	5	6	3	725	1,400	1,475
	7,945	2,820	9,200	1,615	6	3	6	5	6	3	450	1,275	1,050
	8,250	2,930	9,500	1,725	6	3	6	5	6	3	400	1,100	900

D25S-9

Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities								
			With Load Backrest	With Load Backrest	D25S-9								
					Tilt Angle						Load Capacities		
					Single Pneu.		Double Pneu		Single Solid		Single Pneu.	Double Pneu	Single Solid
					FWD	BWD	FWD	BWD	FWD	BWD	LC 500mm	LC 500mm	LC 500mm
	mm	mm	mm	mm	deg	deg	deg	deg	deg	deg	kg	kg	kg
STD	2,030	1,590	3,280	147	6	10	6	10	6	10	2,500	2,500	2,500
	2,950	2,050	4,200	147	6	10	6	10	6	10	2,500	2,500	2,500
	3,230	2,190	4,480	147	6	10	6	10	6	10	2,500	2,500	2,500
	3,500	2,440	4,755	147	6	10	6	10	6	10	2,500	2,500	2,500
	3,800	2,590	5,055	147	6	10	6	10	6	10	2,500	2,500	2,500
	3,950	2,665	5,205	147	6	10	6	10	6	10	2,500	2,500	2,500
	4,350	2,865	5,605	147	6	8	6	10	6	10	2,500	2,500	2,500
	4,500	2,940	5,755	147	6	5	6	10	6	10	2,500	2,500	2,500
	4,960	3,165	6,205	147	6	5	6	10	6	10	2,500	2,500	2,500
FF	2,950	2,050	4,200	845	6	10	6	10	6	10	2,500	2,500	2,500
	3,230	2,190	4,480	985	6	10	6	10	6	10	2,500	2,500	2,500
	3,600	2,440	4,855	1,235	6	10	6	10	6	10	2,500	2,500	2,500
FFT	2,950	1,600	4,210	395	6	8	6	8	6	8	2,500	2,500	2,500
	3,900	1,915	5,155	710	6	8	6	8	6	8	2,500	2,500	2,500
	4,240	2,025	5,485	820	6	5	6	8	6	8	2,500	2,500	2,500
	4,290	2,050	5,560	845	6	5	6	8	6	8	2,500	2,500	2,500
	4,730	2,190	5,980	985	6	8	6	8	6	8	2,500	2,500	2,500
	4,805	2,215	6,055	1,010	6	5	6	8	6	8	2,500	2,500	2,500
	4,930	2,290	6,180	1,085	6	5	6	8	6	8	2,250	2,500	2,500
	5,110	2,390	6,355	1,185	6	3	6	8	6	8	2,150	2,475	2,500
	5,170	2,360	6,420	1,155	6	3	6	8	6	8	2,000	2,450	2,500
	5,560	2,540	6,805	1,335	6	3	6	8	6	5	1,750	2,400	2,500
	6,010	2,690	7,255	1,485	6	3	6	8	6	3	1,300	2,300	2,425
	6,290	2,860	7,540	1,655	6	3	6	5	6	3	1,100	2,250	2,150
	6,500	2,930	7,750	1,725	6	3	6	5	6	3	1,000	2,200	1,925
	6,910	3,065	8,155	1,860	6	3	6	3	6	3	800	2,150	1,550
	7,060	3,190	8,305	1,985	6	3	6	3	6	3	700	2,100	1,425
	7,360	3,290	8,605	2,085	6	3	6	3	6	3	600	2,050	1,225
	7,510	3,340	8,755	2,135	6	3	6	3	6	3	550	1,975	1,125
	7,810	3,440	9,055	2,235	6	3	6	3	6	3	400	1,725	950
Quad	6,100	2,190	7,355	985	6	3	6	5	6	3	1,175	2,000	2,075
	6,640	2,390	7,895	1,185	6	3	6	5	6	3	825	1,925	1,850
	7,035	2,490	8,295	1,285	6	3	6	5	6	3	650	1,850	1,475
	7,945	2,820	9,200	1,615	6	3	6	5	6	3	375	1,325	925
	8,250	2,930	9,500	1,725	6	3	6	3	6	3	300	1,450	775