

MAST SPECIFICATION and RATED CAPACITIES

D30S-9

Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities								
					D30S-9								
					Tilt Angle		Load Capacities						
					With Load Backrest	With Load Backrest	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
3,230		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	3,000	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	
QUAD	6,100	2,180	7,350	980	6	3	6	5	6	5	1,475	2,475	2,500
	6,640	2,380	7,890	1,180	6	3	6	5	6	3	1,100	2,350	2,425
	7,035	2,480	8,290	1,280	6	3	6	3	6	3	875	2,275	1,975
	7,945	2,810	9,195	1,610	-	-	-	-	-	-	450	-	-
	8,250	2,920	9,495	1,720	-	-	6	5	-	-	-	-	-

D33S-9

Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities								
					D33S-9								
					Tilt Angle		Load Capacities						
					With Load Backrest	With Load Backrest	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
3,230		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.

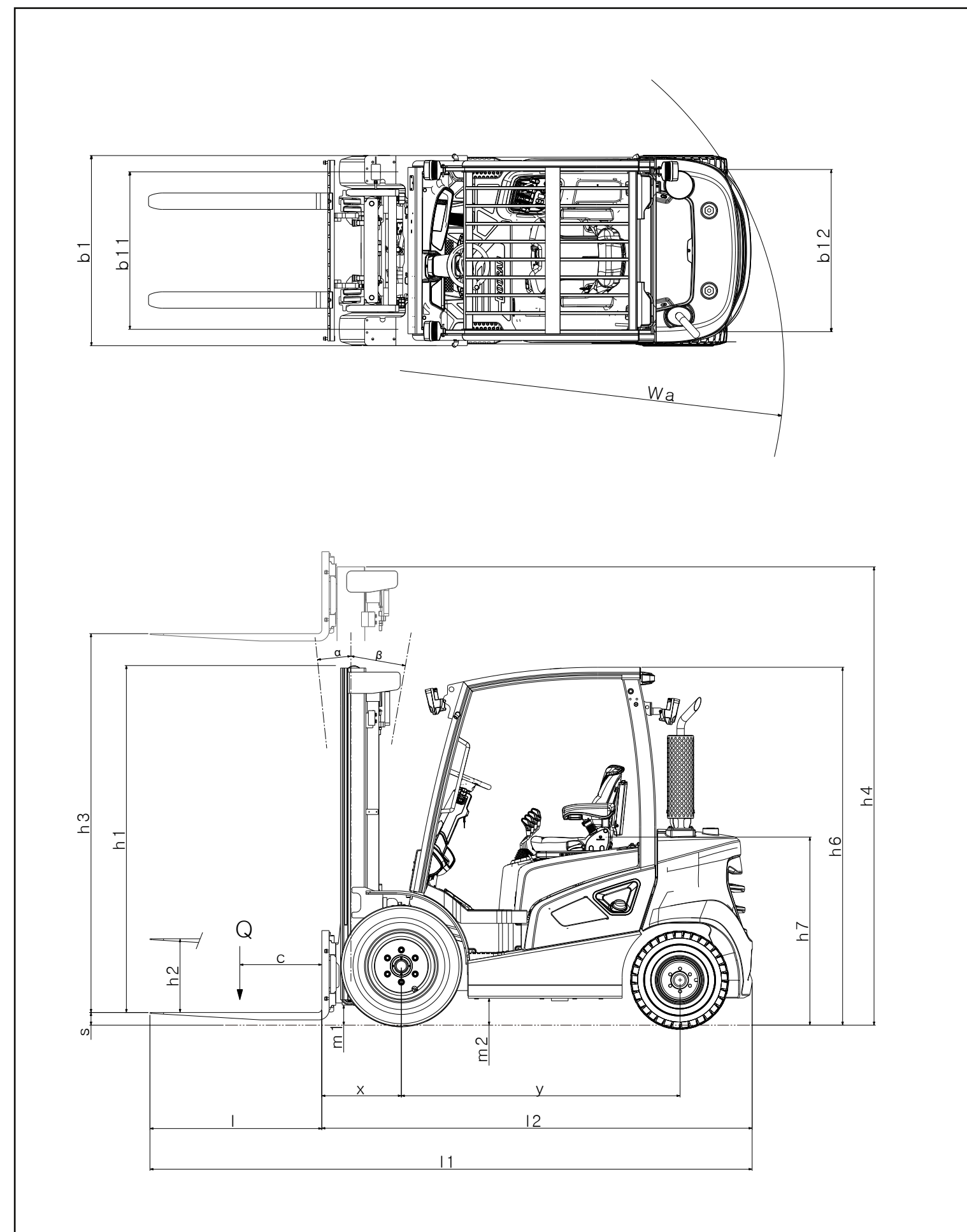
D35C-9

Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities								
					D35C-9								
					Tilt Angle		Load Capacities						
					With Load Backrest	With Load Backrest	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	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
	3,495	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									

Technical Data according to VDI 2198

Characteristics	Doosan				Doosan				
	1.1	Manufacturer			D20S-9	D25S-9	D30S-9	D33S-9	D35C-9
1.2	Model				diesel	diesel	diesel	diesel	diesel
1.3	Drive				seated	seated	seated	seated	seated
1.4	Operator type								
1.5	Load Capacity	Q	kg		2,000	2,500	3,000	3,250	3,500
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
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
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
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
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
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
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
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
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
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

DIMENSIONAL DRAWING



MAST SPECIFICATION and RATED CAPACITIES

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
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
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
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
FFT	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	5	1,275	1,550	1,600
	6,640	2,390	7,895	1,185	6	3	6	5	6	5	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	3	6	3	400	1,100	900

D25S-9

Mast type	Maximum Fork Height	Maximum Lowered Height	Fully Extended Height	Free Lift	Rated Load Capacities								
					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,		