

**S** SERIES

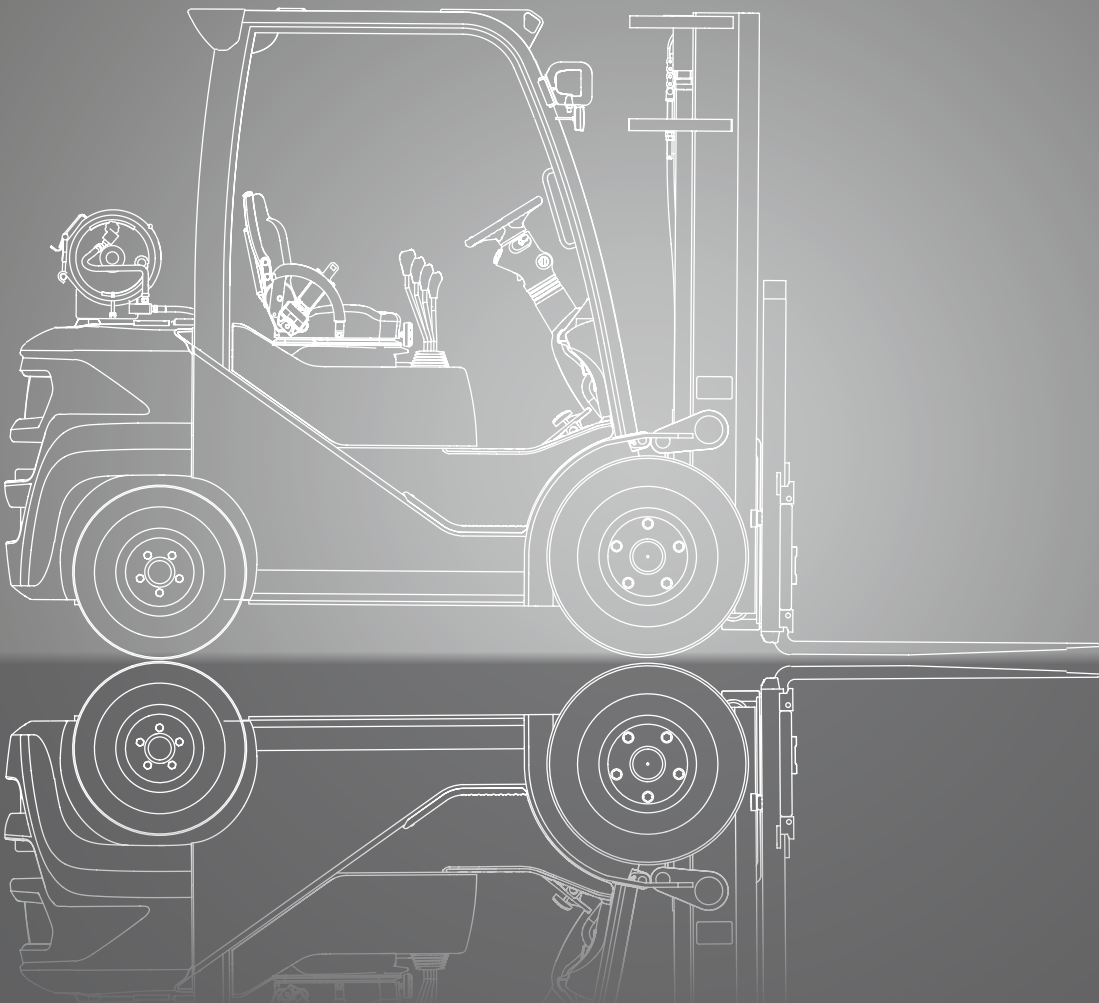
**CLARK**<sup>®</sup>  
THE FORKLIFT

# S20/25/30/35

Diesel or LPG engine

Pneumatic or Superelastic Tyres

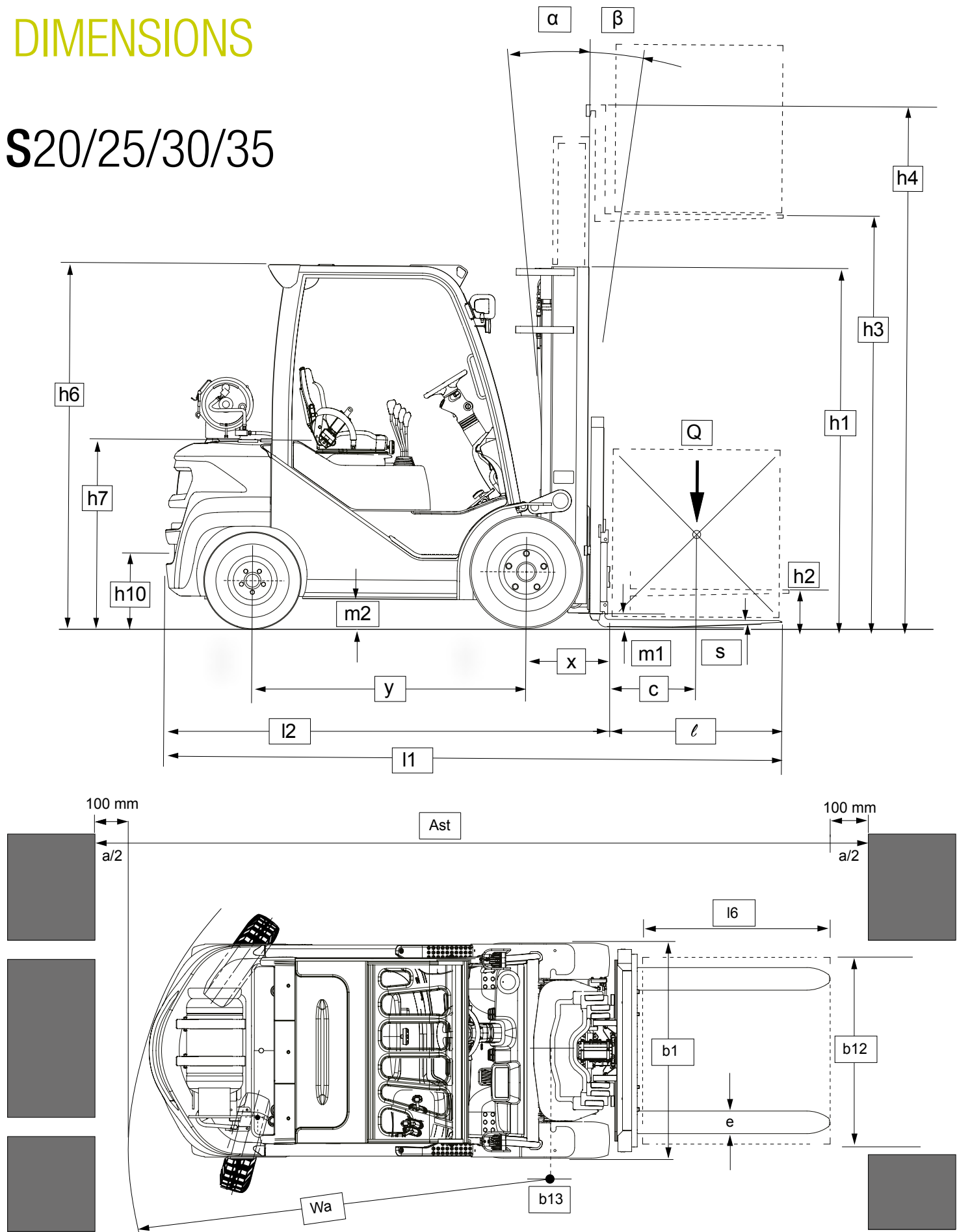
2000 kg 2500 kg 3000 kg 3500 kg



[www.clarkmheu.com](http://www.clarkmheu.com)

# DIMENSIONS

## S20/25/30/35



For corresponding data see specification chart.

$a = 200 \text{ mm}$   
 $Ast = Wa + x + l6 + a$   
 applies only if  $b12/2 < b13$

# SPECIFICATIONS

## Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK	CLARK
Specifications	1.2 Manufacturer's designation	S20D	S25D	S30D	S35D
	1.3 Drive unit Diesel, L.P. Gas	Diesel	Diesel	Diesel	Diesel
	1.4 Operator type stand on / driver seated	Driver Seated	Driver Seated	Driver Seated	Driver Seated
	1.5 Load capacity / rated load Q (kg)	2000	2500	3000	3500
	1.6 Load centre distance c (mm)	500	500	500	500
	1.8 Load centre distance, centre of drive axle to fork face x (mm)	465	465	475	495
	1.9 Wheelbase y (mm)	1650	1650	1700	1700
Weight	2.1 Service weight kg	3435	3774	4243	4650
	2.2 Axle loading, laden front/rear kg	4740 / 695	5463 / 810	6314 / 929	7147/1003
	2.3 Axle loading, unladen front/rear kg	1570 / 1865	1501 / 2273	1594 / 2650	1598/3052
Tyres, Chassis	3.1 Tyre type *1	P	P	P	P
	3.2 Tyre size, front	7.00X12 -14PR	7.00X12 -14PR	28X9X15 -14PR	250X15 -20PR
	3.3 Tyre size, rear	6.00X9-10PR	6.00X9-10PR	6.50X10-12PR	6.50X10-12PR
	3.5 Wheels, number front/rear (x = drive wheels) *5	2(4)x /2	2(4)x /2	2(4)/2	2(4)/2
	3.6 Tread, front b10 (mm)	964	964	1112	1112
	3.7 Tread, rear b11 (mm)	970	970	1134	1134
	Dimensions	4.1 Tilt of upright $\alpha = \text{back} / \beta = \text{front}$ Grad	10/8	10/8	10/8
4.2 Height, upright lowered h1(mm)		2165	2165	2180	2200
4.3 Freelift h2(mm)		110	110	110	115
4.4 Lift height *2 h3(mm)		3300	3300	3300	3165
4.5 Height, upright extended (with load backrest) h4(mm)		3924	3924	3967	3913
4.7 Height overheadguard h6(mm)		2165	2165	2180	2200
Height overheadguard with cab h6(mm)		2185	2185	2200	2220
4.8 Seat height h7(mm)		1157	1157	1172	1172
4.12 Coupling height h10(mm)		410	410	425	425
4.19 Overall length l1(mm)		3639	3710	3840	3920
4.20 Length to face of forks l2(mm)		2569	2640	2770	2850
4.21 Width (wide drive / dual drive) *5 b1, b2 (mm)		1160 (1240/1566)	1160 (1240/1566)	1220 (1300/1566)	1242 (1322/1678)
4.22 Fork dimensions s • e • l (mm)		45x100x1070	45x100x1070	45x122x1070	50x125x1070
4.23 Fork carriage DIN 15173, A, B		Class II A	Class II A	Class III A	Class III A
4.24 Fork carriage width b3 (mm)		1040	1040	1040	1145
4.31 Ground clearance minimum m1 (mm)		135	135	150	170
4.32 Ground clearance centre of wheelbase m2 (mm)	155	155	170	170	
4.33 Aisle width for pallets 1000 x 1200 crossways Ast(mm)	3930	3995	4125	4197	
4.34 Aisle width for pallets 800 x 1200 lengthways Ast(mm)	4130	4195	4325	4397	
4.35 Turning radius (mm)	2265	2330	2450	2502	
4.36 Internal turning radius b13 (mm)	741	741	751	751	
Performances	5.1 Travel speed laden/unladen km/h	16.6/17.7	16.3/10.9	17.5/18.5	19.0/19.3
	5.2 Lift speed laden/unladen m/s	0.55 / 0.58	0.55 / 0.58	0.55/0.58	0.45/0.48
	5.3 Lowering speed laden/unladen m/s	0.55 / 0.50	0.55 / 0.50	0.55/0.50	0.47/0.43
	5.6 Max. drawbar pull laden/unladen *3 N	23.006 / 7.453	23.193 / 7.042	21.116 / 7.384	19.368/7.384
	5.8 Max. gradeability laden/unladen *3 %	47.6 / 23.2	40.7/20.2	31.1/19.0	25.0/17.5
	5.9 Acceleration time laden/unladen (0 -15 m) s	-	-	-	-
	5.10 Service brake	Wet disc brake	Wet disc brake	Wet disc brake	Wet disc brake
Engine	7.1 Manufacturer / Type *6	ISUZU	ISUZU	ISUZU	ISUZU
	7.2 Rated output acc. DIN 70 020 kW	46	46	46	46
	7.3 Rated speed acc. DIN 70 020 min-1	2400	2400	2400	2400
	7.4 No. of cylinders / displacement /cm3	4/2179	4/2179	4/2179	4/2179
	7.5 Fuel consumption acc. VDI-CyclusDiesel = l/h, L.P.-Gas = kg/h	-	-	-	-
Misc.	8.2 Operating pressure for attachments *7 bar	Adjustable	Adjustabler	Adjustable	Adjustable
	8.3 Oil volume for attachments l/min	max. 35	max. 35	max. 35	max. 35
	8.4 Sound level, driver's ear *4 dB (A)	81	81	81	81
	8.5 Towing coupling, class/type DIN	PIN	PIN	PIN	PIN

\*1 Optional with super-elastic tyres \*2 Futher lift heights see upright table \*3 with 1.6 km/h Without load at friction coefficient  $\mu=0.8$  \*4 Equivalent permanent sound-pressure level L<sub>pAeq, T</sub> in accordance with DIN EN 12053 (previously DIN 45635-36) \*5 Values for Wide or Dual Tyre (Option) \*6 Diesel = Stage 3b / LPG= Stage 0 (Option : Stage 4) \*7 Max. 140 bar

All values shown are for standard lift truck with standard equipment. If the truck is supplied with options, values may change.

All values given may vary +5% and -10% due to the motor and system tolerances and represent nominal values obtained under typical operating conditions.

# SPECIFICATIONS

## Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK	CLARK
Specifications	1.2 Manufacturer's designation	S20L	S25L	S30L	S35L
	1.3 Drive unit Diesel, L.P. Gas	LPG	LPG	LPG	LPG
	1.4 Operator type stand on/driver seated	Driver Seated	Driver Seated	Driver Seated	Driver Seated
	1.5 Load capacity/rated load Q (kg)	2000	2500	3000	3500
	1.6 Load centre distance c (mm)	500	500	500	500
	1.8 Load centre distance, centre of drive axle to fork face x (mm)	465	465	475	495
	1.9 Wheelbase y (mm)	1650	1650	1700	1700
Weight	2.1 Service weight kg	3435	3774	4243	4650
	2.2 Axle loading, laden front/rear kg	4740 / 695	5463 / 810	6314 / 929	7147/1003
	2.3 Axle loading, unladen front/rear kg	1570 / 1865	1501 / 2273	1594 / 2650	1598/3052
Tyres, Chassis	3.1 Tyre type *1	P	P	P	P
	3.2 Tyre size, front	7.00X12 -14PR	7.00X12 -14PR	28X9X15 -14PR	250X15 -20PR
	3.3 Tyre size, rear	6.00X9-10PR	6.00X9-10PR	6.50X10-12PR	6.50X10-12PR
	3.5 Wheels, number front/rear (x = drive wheels) *5	2(4)x /2	2(4)x /2	2(4)/2	2(4)/2
	3.6 Tread, front b10 (mm)	964	964	1112	1112
	3.7 Tread, rear b11 (mm)	970	970	1134	1134
	Dimensions	4.1 Tilt of upright $\alpha$ = back / $\beta$ = front Grad	10/8	10/8	10/8
4.2 Height, upright lowered h1(mm)		2165	2165	2180	2200
4.3 Freelift h2(mm)		110	110	110	115
4.4 Lift height *2 h3(mm)		3300	3300	3300	3165
4.5 Height, upright extended (with load backrest) h4(mm)		3924	3924	3967	3913
4.7 Height overheadguard h6(mm)		2165	2165	2180	2200
Height overheadguard with cab h6(mm)		2185	2185	2200	2220
4.8 Seat height h7(mm)		1157	1157	1172	1172
4.12 Coupling height h10(mm)		410	410	425	425
4.19 Overall length l1(mm)		3639	3710	3840	3920
4.20 Length to face of forks l2(mm)		2569	2640	2770	2850
4.21 Width (wide drive / dual drive) *5 b1, b2 (mm)		1160 (1240/1566)	1160(1240/1566)	1220 (1300/1566)	1242 (1322/1678)
4.22 Fork dimensions s • e • l (mm)		45x100x1070	45x100x1070	45x122x1070	50x125x1070
4.23 Fork carriage DIN 15173, A, B		Class II A	Class II A	Class III A	Class III A
4.24 Fork carriage width b3 (mm)		1040	1040	1040	1145
4.31 Ground clearance minimum m1 (mm)		135	135	150	170
4.32 Ground clearance centre of wheelbase m2 (mm)		155	155	170	170
4.33 Aisle width for pallets 1000 x 1200 crossways Ast(mm)	3930	3995	4125	4197	
4.34 Aisle width for pallets 800 x 1200 lengthways Ast(mm)	4130	4195	4325	4397	
4.35 Turning radius (mm)	2265	2330	2450	2502	
4.36 Internal turning radius b13 (mm)	741	741	751	751	
Performances	5.1 Travel speed laden/unladen km/h	18.3/19.5 (17.2/18.3)	18.6/19,2 (16.8/18.2)	19.5/20,7 (18.1/19.3)	20.7/21.2 (18.1/18.7)
	5.2 Lift speed laden/unladen m/s	0.52 / 0.54	0.52 / 0.58	0.52/0.54	0.45/0.48
	5.3 Lowering speed laden/unladen m/s	0.55 / 0.50	0.55 / 0.50	0.55/0.50	0.47/0.43
	5.6 Max. drawbar pull laden/unladen *3 N	21.182 / 7.789	21.329 / 7.366	19.399 / 7.749	19.368/7.384
	5.8 Max. gradeability laden/unladen *3 %	42.4 / 24.2 (44.2/24.8)	32.9/21.6 (37.6/21.4)	27.8/19.9 (28.8/20.3)	22.5/17.1 (24.6/18.5)
	5.9 Acceleration time laden/unladen (0 -15 m) s	-	-	-	-
5.10 Service brake	Wet disc brake	Wet disc brake	Wet disc brake	Wet disc brake	
Engine	7.1 Manufacturer /Type *6	MMC-PSI (FORD)	MMC-PSI (FORD)	MMC-PSI (FORD)	MMC-PSI (FORD)
	7.2 Rated output acc. DIN 70 020 kW	52.4 (52)	52.4 (52)	52.4 (52)	52.4 (52)
	7.3 Rated speed acc. DIN 70 020 min-1	2500 (2500)	2500 (2500)	2500 (2500)	2500 (2500)
	7.4 No. of cylinders /displacement /cm3	4 (4) /2351 (2488)	4 (4) /2351 (2488)	4 (4) /2351 (2488)	4 (4) /2351 (2488)
	7.5 Fuel consumption acc. VDI-CyclusDiesel = l/h, L.P.-Gas = kg/h	-	-	-	-
Misc.	8.2 Operating pressure for attachments *7 bar	Adjustable	Adjustable	Adjustable	Adjustable
	8.3 Oil volume for attachments l/min	max. 35	max. 35	max. 35	max. 35
	8.4 Sound level, driver's ear *4 dB (A)	81	81	81	81
	8.5 Towing coupling, class/type DIN	PIN	PIN	PIN	PIN

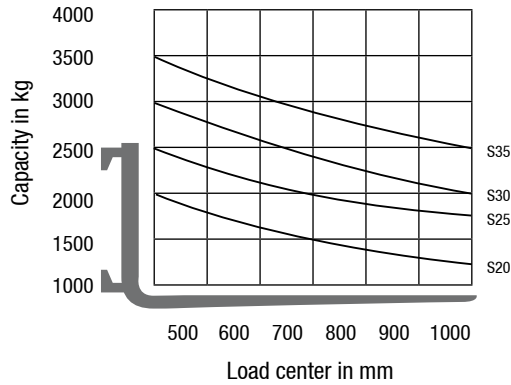
\*1 Optional with super-elastic tyres \*2 Futher lift heights see upright table \*3 with 1.6 km/h Without load at friction coefficient  $\mu=0.8$  \*4 Equivalent permanent sound-pressure level L<sub>pAeq, T</sub> in accordance with DIN EN 12053 (previously DIN 45635-36) \*5 Values for Wide or Dual Tyre (Option) \*6 Diesel = Stage 3b / LPG= Stage 0 (Option : Stage 4) \*7 Max. 140 bar

All values shown are for standard lift truck with standard equipment. If the truck is supplied with options, values may change.

All values given may vary +5% and -10% due the motor and system tolerances and represent nominal values obtained under typical operating conditions.

# GENERAL DATA

## Truck Capacities Capacity at different load centres



### Note:

The listed capacities are valid only for the standard upright in vertical position with standard fork carriage and standard forks, up to max. lifting height of 3300 mm. The centre of gravity of the load may be displaced by max. 100 mm against the longitudinal centre plane of the truck. Load centre is determined from top and front face of the forks. The values are based on a 1000 mm cube load configuration with the centre of gravity at the true centre of the cube. With upright tilted forward lower capacity values are valid. Attachments, longer forks, exceptional load dimensions and higher lifting heights can reduce the capacity.

Please talk to your CLARK dealer if you require further information.

## Upright table S20/25/30

	Max. Fork Height (h3)	Mast Lowered (h1)	Mast Extended (h4)		Free Lift (h2)	
			with load backrest	without load backrest	with load backrest	without load backrest
	mm	mm	mm	mm	mm	mm
STD	2120	1575	3340	2718	110	110
	2980	2005	4200	3578		
	3300	2165	4520	3898		
	3500	2265	4720	4098		
	3725	2455	4944	4322		
	3860	2530	5080	4458		
	4165	2800	5384	4762		
	4380	3000	5600	4978		
	4620	3230	5840	5218		
	5170	3495	6390	5768		
Triplex	4320	2005	5539	4943	786	1382
	4500	2035	5719	5123	816	1442
	4800	2165	6017	5423	946	1542
	5210	2305	6429	5833	1086	1682
	5520	2455	6739	6143	1236	1832
	5740	2530	6959	6363	1311	1907
	6100	2690	7319	6723	1471	2067
	6370	2800	7589	6993	1581	2177
	6830	3000	8049	7453	1781	2377
	7315	3230	8534	7938	2011	2607
HI-LO	2935	2005	4155	3559	786	1382
	3255	2165	4475	3879	946	1542
	3530	2305	4750	4154	1086	1682
	3760	2455	4980	4384	1236	1832
	3910	2530	5128	4532	1311	1907
Quad	6100	2165	7332	6736	946	1542
	6560	2310	7784	7188	1091	1687
	7015	2463	8237	7641	1244	1840
	7480	2616	8701	8105	1397	1993
	7935	2768	9156	8560	1549	2145

## Upright table S35

	Max. Fork Height (h3)	Mast Lowered (h1)	Mast Extended (h4)		Free Lift (h2)	
			with load backrest	without load backrest	with load backrest	without load backrest
	mm	mm	mm	mm	mm	mm
STD	1985	1610	3215	2733	115	115
	2845	2040	4075	3593		
	3165	2200	4395	3913		
	3365	2300	4595	4113		
	3590	2490	4819	4337		
	3725	2565	4955	4473		
	4030	2835	5255	4773		
	4245	3035	5471	4989		
	4485	3265	5711	5229		
	5035	3530	6261	5779		
Triplex	4140	2040	5363	4903	821	1281
	4320	2070	5543	5083	851	1311
	4620	2200	5843	5383	981	1441
	5030	2340	6253	5793	1121	1581
	5340	2490	6563	6103	1271	1731
	5560	2565	6783	6323	1346	1806
	5920	2725	7143	6683	1506	1966
	6190	2835	7409	6949	1616	2076
	6650	3035	7869	7409	1816	2276
	7135	3265	8354	7894	2046	2506
Quad	6100	2200	7332	6790	981	1524
	6560	2325	7784	7242	1126	1669
	7015	2478	8237	7695	1279	1822
	7480	2631	8701	8159	1432	1975
	7935	2783	9156	8614	1584	2127

### Note:

Mast lowered and freelifit for S30 are 15mm higher than above mentioned values.

# PRODUCT DESCRIPTION



The S-Series from CLARK marks a further development in reliable, durable and powerful forklifts. Lower operating and maintenance costs combined with a well-designed and ergonomic operator compartment are what makes this forklift truly unique.

## Driver Environment

- Functional, safe with minimal vibrations
- Low positioned perforated non-slip metal step
- Fully covered anti-slip rubber foot area
- A grab handle on the driver side of entry makes it easy to climb up and down
- Adjustable steering column allows more leg and foot room
- Small steering wheel diameter ( $\phi=300$  mm)
- Hydraulic power steering
- Adjustable artificial leather vinyl seat with mechanical suspension weight adjustable from 50 to 140 kg
- Engine cover mounted hydraulic control levers or as an optional armrest mini lever
- Automotive style foot pedals
- Low front cowl for improved visibility
- Excellent visibility from a new developed driver's roof
- Cup holder, storage box and document holder including a 12V power connection
- Automatic parking brake

## Smart-Display

- Clear and easy-to-read 5-inch colour display
- Protected against water ingress
- Maintenance indicator and password-protected service access
- Selection of different warning signs (optical / acoustic)

## Fuel efficiency truck management options

- Automatic engine shut down timer for excessive engine idling
- Automatic light switch-off
  - The setting for each shutdown function can be activated on demand and will be set after operator has left the driver seat
  - The shutdown timer delay is adjustable

## Engine, Transmission

The CLARK S-Series forklifts with LPG or diesel powered offer excellent acceleration and performance power. These modern engines are efficient and at the top end of the performance class. Temperature from the engine and transmission is constantly monitored and in the event of design limits being exceeded the engine is automatically shut-down. Rubber mounted transmission and drive axle, separated by a heavy duty flexible coupling, reduces vibrations and noise to a minimum.

## Diesel Engine

- ISUZU (2.2L)
- Meets all EU emissions (Stage IIIB)
- Turbocharger with intercooler
- DOC (Diesel Oxidation Catalyst)
- No regeneration cycle necessary
- No additional additives required
- Alternative systems using DPF (Diesel- Particle-Filter) require frequent regeneration which means truck downtime during working operation

## LPG Engine

- MMC-PSI (2.3L) or FORD (2.5L)
- ECU-controlled map ignition for more torque
- 4-cylinder design with overhead camshafts
- Electronic controlled engine speed

## Steering system

- Hydrostatic power steering eliminating steering kick-back
- A robust steering axle with pivotal bearings in mounted rubber steel moulded mounting

## Brake system

- Maintenance free wet disc service brakes
- Power assisted service brake for easier brake operation with more effect
- Automatic parking brake

## Hydraulic system

- Full-flow reverse filter, filters the oil to the tank at each reverse flow
- Rough particles are filtered directly via a suction filter, thereby preventing them from entering the oil circuit, ensuring a long service life for all hydraulic components
- Transmission oil cooling
- Large hydraulic oil tank (47 L) makes sure that there is always enough hydraulic oil available for the highest upright and all attachments
- A safety valve provides extra safety and prevents an uncontrolled load lowering at all times

## Upright

- The clear-view uprights are available in Standard, Hilo, Triplex and Quad versions
- Perfect view through extra-wide masts, narrow centre cylinders and optimum mast design
- Adjustable sealed canted (Angled) rollers minimize deflection
- Spherical mounted tilt cylinders bearings
- An integral tilt-lock valve prevents mast tilt drift
- Robust 6-roller fork carriage with adjustable side thrust rollers for durability
- A CLARK hydraulic dampening system reduces impacts and vibrations during the transition between the individual lifting sections in raising and lowering, thus protecting the products and extending service life

## Additional standard equipment

LED-front headlights, pneumatic tyres, LED-direction indicator lights, combination rear lights with brake lights and white reversing lights. Paintwork in a bright safety colour „CLARK HOT YELLOW GREEN“. Driver's compartment and upright in matt black, rims in gloss black

## Additional equipment

- SE tyres
- Various attachments
- Heated cabs with an air-conditioned option (diesel engine only)
- Armrest mounted mini-lever with direction control
- Smart travel direction switch mounted on the mechanical hydraulic lever
- Integrated or hook-type side-shifter
- Locking fuel cap (Diesel only)
- Speed limiter (adjustable from 8 km/h to max. travel speed)
- Rear view camera
- USB charging port in storage box
- Safety light as visual back-up alarm
- Load weight measurement (tolerance: 1% of the rated load)
- CLARK vertical mast system (automatic vertical upright position tilt lock)
- Attachment quick-release couplings
- Various seats with armrest or side wings
- Acoustic reverse alarm
- Reduced overhead guard heights
- Vertical exhaust tail pipe
- ...and much more

## Safety

The S-Series is CE certified and conforms to all European safety standards for industrial trucks.

Contact your CLARK dealer to find your optimum forklift.

Dealer:

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