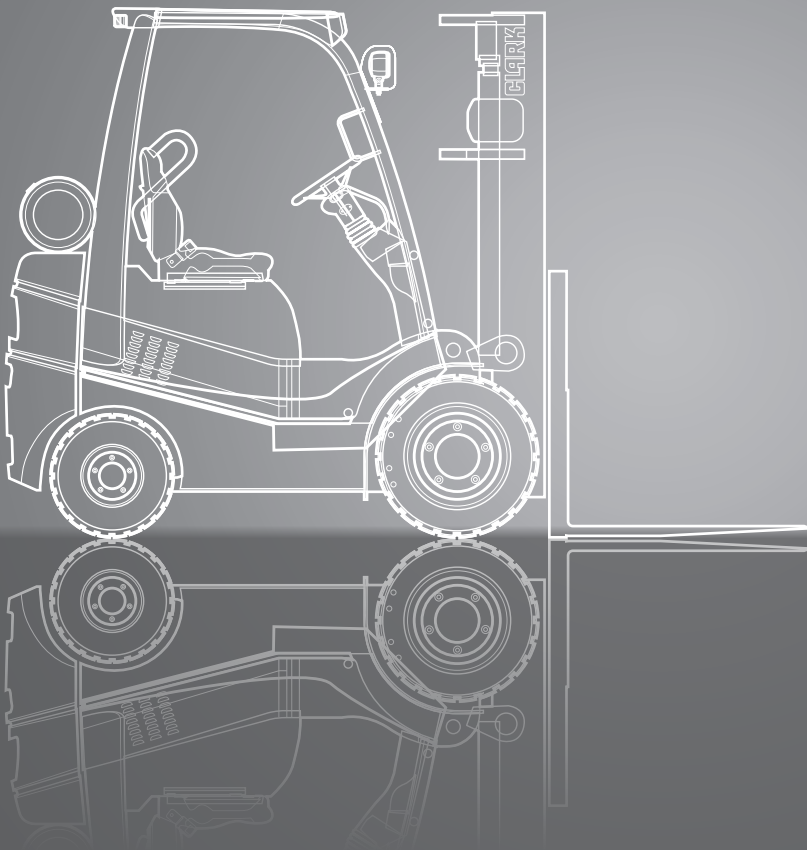


# C 15/18/20s

Diesel or LPG engine

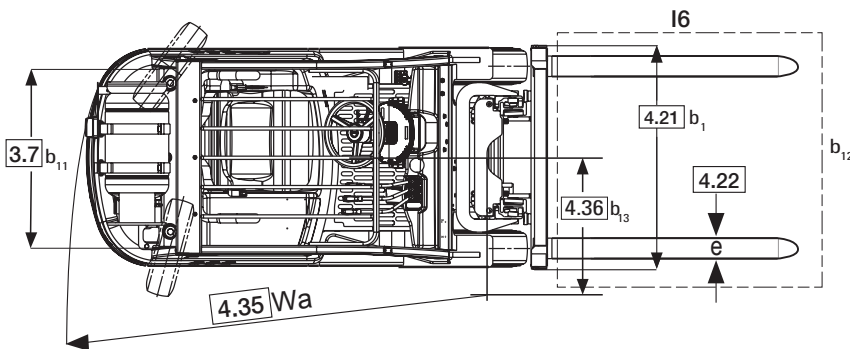
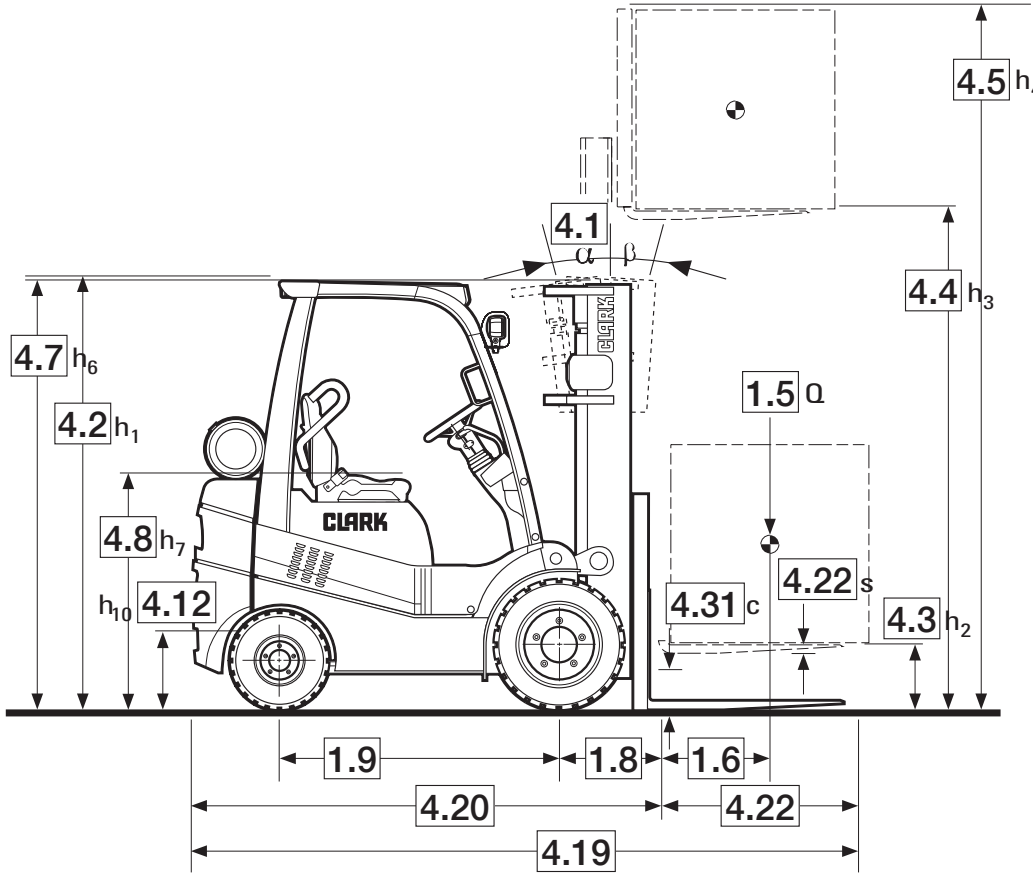
Pneumatic or Superelastic tyres

1.500 kg 1.800 kg 2.000 kg



# DIMENSIONS

## C15/18/20s



$$A_{st} = Wa + x + l_6 + a$$

applies only if  $\frac{b_{12}}{2} < b_{13}$

$$A_{st} = Wa + \sqrt{(l_6 + x)^2 + \left(\frac{b_{12}}{2} - b_{13}\right)^2} + a$$

applies only if  $\frac{b_{12}}{2} \geq b_{13}$

$$a = 200$$

# SPECIFICATIONS

## Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK
Specifications	1.2 Manufacturer's designation	<b>C15D</b>	<b>C18D</b>	<b>C20sD</b>
	1.3 Drive unit Diesel, LPG	Diesel	Diesel	Diesel
	1.4 Operator type stand on / driver seated	Driver seated	Driver seated	Driver seated
	1.5 Load capacity / rated load Q (t)	1,5	1,8	2,0
	1.6 Load centre distance c (mm)	500	500	500
	1.8 Load centre distance, centre of drive axle to fork face x (mm)	392	392	397
	1.9 Wheelbase y (mm)	1400	1400	1400
Weight	2.1 Service weight kg	2798	3021	3168
	2.2 Axle loading, laden front / rear kg	3744/554	4176/645	4459/709
	2.3 Axle loading, unladen front / rear kg	1283/1515	1224/1797	1179/1989
Tyres, Chassis	3.1 Tyre type, P = pneumatic, SE = superelastic 1)	P	P	P
	3.2 Tyre size, front	6,50 x 10 - 12PR	6,50 x 10 - 12PR	6,50 x 10 - 12PR
	3.3 Tyre size, rear	5,00 x 8 - 10PR	5,00 x 8 - 10PR	5,00 x 8 - 10PR
	3.5 Wheels, number front/rear (x = drive wheels)	2x / 2	2x / 2	2x / 2
	3.6 Tread, front b10 (mm)	890	890	890
	3.7 Tread, rear b11 (mm)	890	890	890
	Dimensions	4.1 Tilt of upright/fork carriage, $\alpha / \beta$ Grad	8 / 8	8 / 8
4.2 Height, upright lowered h1(mm)		2240	2240	2240
4.3 Freelift h2(mm)		105	105	110
4.4 Lift height 2) h3(mm)		3285	3285	3285
4.5 Height, upright extended (with LBR) h4(mm)		4502	4502	4507
4.7 Height overheadguard Std / (Cabin) *5 h6(mm)		2120 (2135)	2120 (2135)	2120 (2135)
4.8 Seat height h7(mm)		1100	1100	1100
4.12 Coupling height h10(mm)		310	310	310
4.19 Overall length l1(mm)		3266	3311	3358
4.20 Length to face of forks l2(mm)		2196	2241	2288
4.21 Width b1, b2 (mm)		1070	1070	1070
4.22 Fork dimensions s • e • l (mm)		35X100X1070	35X100X1070	40X100X1070
4.23 Fork carriage DIN 15173, A, B		CLASS IIA	CLASS IIA	CLASS IIA
4.24 Fork carriage width b3 (mm)		940	940	940
4.31 Ground clearance minimum m1 (mm)		120	120	120
4.32 Ground clearance centre of wheelbase m2 (mm)		124	124	124
4.33 Aisle width for pallets (l6-b12) 1000 x 1200 crossways Ast(mm)		3665	3713	3751
4.34 Aisle width for pallets (l6-b12) 800 x 1200 lengthways Ast(mm)	3865	3913	3951	
4.35 Outside turning radius Wa(mm)	2073	2121	2154	
4.36 Smallest pivot point distance b 13(mm)	571	571	571	
Performances	5.1 Travel speed laden/unladen km/h	17,2 / 17,9	17,6 / 17,9	17,4 / 17,9
	5.2 Lift speed laden/unladen m/s	0,57 / 0,61	0,56 / 0,61	0,54 / 0,61
	5.3 Lowering speed laden/unladen m/s	0,47 / 0,43	0,47 / 0,43	0,47 / 0,43
	5.6 Max. drawbar pull laden/unladen 3) 4) N	14.950 / 7.514	15.019 / 7.171	15.088 / 6.916
	5.8 Max. gradeability laden/unladen 3) 4) %	37,5 / 20,9	33,2 / 18,6	31,3 / 17,1
	5.9 Acceleration time laden/unladen (0 - 15 m) s	-	-	-
	5.10 Service brake	Drum&Shoe	Drum&Shoe	Drum&Shoe
I.C.- Engine	7.1 Manufacturer / Type 6)	Yanmar 4TNV88	Yanmar 4TNV88	Yanmar 4TNV88
	7.2 Rated output acc. To SAE J1349 kW	28,8	28,8	28,8
	7.3 Rated speed min-1	2400	2400	2400
	7.4 No. of cylinders / displacement /cm3	4 / 2190	4 / 2190	4 / 2190
	7.5 Fuel consumption acc. VDI-Cyclus Diesel= l/h, L.P.-Gas= kg/h	-	-	-
Miscellaneous	8.2 Operating pressure for attachments bar	140	140	140
	8.3 Oil volume for attachments l/min	-	-	-
	8.4 Sound level, driver's ear acc. EN 12053 dB (A)	81	81	81
	8.5 Towing coupling, class/type DIN	-	-	-

\*1) Optional with super-elastic tyres

\*2) Further lift heights see upright table

\*3) With 1.6 km/h

\*4) Without load at friction coefficient  $\mu = 0.6$

\*5) Height overheadguard with Radio +60m

\*6) Diesel = TIER 3 / LPG = TIER 0 (MMC)

# Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK
Specifications	1.2 Manufacturer's designation	<b>C15L</b>	<b>C18L</b>	<b>C20sL</b>
	1.3 Drive unit Diesel, LPG	LPG	LPG	LPG
	1.4 Operator type stand on / driver seated	Driver seated	Driver seated	Driver seated
	1.5 Load capacity / rated load Q (t)	1,5	1,8	2,0
	1.6 Load centre distance c (mm)	500	500	500
	1.8 Load centre distance, centre of drive axle to fork face x (mm)	392	392	397
	1.9 Wheelbase y (mm)	1400	1400	1400
Weight	2.1 Service weight kg	2798	3021	3168
	2.2 Axle loading, laden front / rear kg	3744/554	4176/645	4459/709
	2.3 Axle loading, unladen front / rear kg	1283/1515	1224/1797	1179/1989
Tyres, Chassis	3.1 Tyre type, P = pneumatic, SE = superelastic 1)	P	P	P
	3.2 Tyre size, front	6,50 x 10 - 12PR	6,50 x 10 - 12PR	6,50 x 10 - 12PR
	3.3 Tyre size, rear	5,00 x 8 - 10PR	5,00 x 8 - 10PR	5,00 x 8 - 10PR
	3.5 Wheels, number front/rear (x = drive wheels)	2x / 2	2x / 2	2x / 2
	3.6 Tread, front b10 (mm)	890	890	890
	3.7 Tread, rear b11 (mm)	890	890	890
	Dimensions	4.1 Tilt of upright/fork carriage, $\alpha / \beta$ Grad	8 / 8	8 / 8
4.2 Height, upright lowered h1 (mm)		2240	2240	2240
4.3 Freelift h2 (mm)		105	105	110
4.4 Lift height 2) h3 (mm)		3285	3285	3285
4.5 Height, upright extended (with LBR) h4 (mm)		4502	4502	4507
4.7 Height overheadguard Std / (Cabin) *5 h6 (mm)		2120 (2135)	2120 (2135)	2120 (2135)
4.8 Seat height h7 (mm)		1100	1100	1100
4.12 Coupling height h10 (mm)		310	310	310
4.19 Overall length l1 (mm)		3266	3311	3358
4.20 Length to face of forks l2 (mm)		2196	2241	2288
4.21 Width b1, b2 (mm)		1070	1070	1070
4.22 Fork dimensions s • e • l (mm)		35X100X1070	35X100X1070	40X100X1070
4.23 Fork carriage DIN 15173, A, B		CLASS IIA	CLASS IIA	CLASS IIA
4.24 Fork carriage width b3 (mm)		940	940	940
4.31 Ground clearance minimum m1 (mm)		120	120	120
4.32 Ground clearance centre of wheelbase m2 (mm)		124	124	124
4.33 Aisle width for pallets (I6-b12) 1000 x 1200 crossways Ast (mm)		3665	3713	3751
4.34 Aisle width for pallets (I6-b12) 800 x 1200 lengthways Ast (mm)	3865	3913	3951	
4.35 Outside turning radius Wa (mm)	2073	2121	2154	
4.36 Smallest pivot point distance b 13 (mm)	571	571	571	
Performances	5.1 Travel speed laden/unladen km/h	18,0 / 18,4	17,9 / 18,4	17,9 / 18,4
	5.2 Lift speed laden/unladen m/s	0,57 / 0,61	0,56 / 0,61	0,54 / 0,61
	5.3 Lowering speed laden/unladen m/s	0,45 / 0,43	0,45 / 0,43	0,45 / 0,43
	5.6 Max. drawbar pull laden/unladen 3) 4) N	14.470 / 7.514	14.774 / 7.171	14.931 / 6.916
	5.8 Max. gradeability laden/unladen 3) 4) %	36,0 / 19,9	32,5 / 17,4	37,0 / 17,1
	5.9 Acceleration time laden/unladen (0 - 15 m) s	-	-	-
	5.10 Service brake	Drum&Shoe	Drum&Shoe	Drum&Shoe
I.C.- Engine	7.1 Manufacturer / Type 6)	STD. MMC 4G63	STD. MMC 4G63	STD. MMC 4G63
	7.2 Rated output acc. To SAE J1349 kW	28,5	28,5	28,5
	7.3 Rated speed min-1	2200	2200	2200
	7.4 No. of cylinders / displacement /cm3	4 / 1997	4 / 1997	4 / 1997
	7.5 Fuel consumption acc. VDI-Cyclus Diesel= l/h, L.P.-Gas= kg/h			
Miscellaneous	8.2 Operating pressure for attachments bar	140	140	140
	8.3 Oil volume for attachments l/min	-	-	-
	8.4 Sound level, driver's ear acc. EN 12053 dB (A)	79	79	79
	8.5 Towing coupling, class/type DIN	-	-	-

\*1) Optional with super-elastic tyres

\*2) Further lift heights see upright table

\*3) With 1.6 km/h

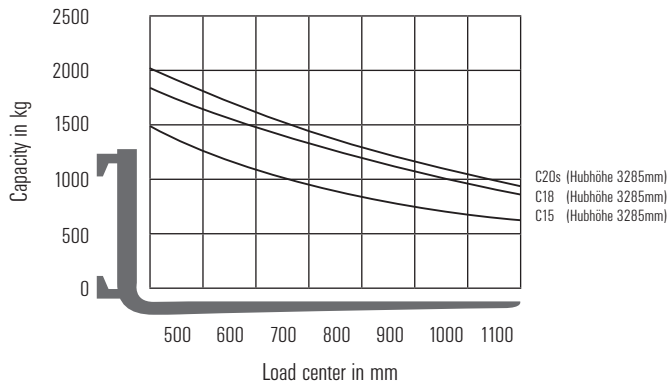
\*4) Without load at friction coefficient  $i = 0.6$

\*5) Height overheadguard with Radio +60m

\*6) Diesel = TIER 3 / LPG = TIER 0 (MMC)

# 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 3285mm.

The centre of gravity of the load may be displaced by max. 100mm against the longitudinal centre line of the truck. Load centre is determined from top and front face of forks. The values are based on a 1000mm, 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 may reduce the capacity.

## Upright table Pneumatic Tyres C15/18

	Maximum 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
Standard	2265	1730	3482	2892	105	105
	2545	1870	3762	3172		
	2795	1995	4012	3422		
	3085	2140	4302	3712		
	3285	2240	4502	3912		
	3640	2417	4857	4267		
	4070	2690	5287	4697		
	4365	2890	5582	4992		
	4655	3085	5872	5282		
	5145	3415	6362	5772		
Triple	3970	1870	5187	4597	643	1233
	4345	1995	5562	4972	768	1358
	4780	2140	5997	5407	913	1503
	5185	2290	6402	5812	1063	1653
	5400	2380	6617	6027	1153	1743
	5565	2450	6782	6192	1223	1813
	5720	2515	6937	6347	1288	1878
	6015	2640	7232	6642	1413	2003
	6470	2830	7687	7097	1603	2193
	7075	3085	8292	7702	1858	2448
Hi-LO	2925	2005	4142	3536	768	1374
	3215	2165	4432	3826	913	1519
	3515	2305	4732	4126	1063	1669
	3695	2455	4912	4306	1153	1759
	3810	2530	5027	4421	1223	1829

## Upright table Pneumatic Tyres 20s

	Maximum 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
Standard	2265	1730	3487	2897	110	110
	2545	1870	3767	3177		
	2795	1995	4017	3427		
	3085	2140	4307	3717		
	3285	2240	4507	3917		
	3640	2417	4862	4272		
	4070	2690	5292	4702		
	4365	2890	5587	4997		
	4655	3085	5877	5287		
	5145	3415	6367	5777		
Triple	3970	1870	5192	4602	648	1238
	4345	1995	5567	4977	773	1363
	4780	2140	6002	5412	918	1508
	5185	2290	6407	5817	1068	1658
	5400	2380	6622	6032	1158	1748
	5565	2450	6787	6197	1228	1818
	5720	2515	6942	6352	1293	1883
	6015	2640	7237	6647	1418	2008
	6470	2830	7692	7102	1608	2198
	7075	3085	8297	7707	1863	2453
Hi-LO	2925	2005	4147	3541	773	1379
	3215	2165	4437	3831	918	1524
	3515	2305	4737	4131	1068	1674
	3695	2455	4917	4311	1158	1764
	3810	2530	5032	4426	1228	1834

Performance may vary +5% and -10% due to motor and system efficiency tolerance. The performance shown represents nominal values which may be obtained under typical operating conditions of a machine. CLARK products and specifications are subject to change without notice.

# PRODUCT DESCRIPTION



The C15-20s series from CLARK marks a further highlight in the reliable, durable and powerful forklifts of the premium Gen2 series. Lower operating and maintenance costs combined with a well-designed and ergonomic operators compartment are what makes this forklift truly unique. The sturdy „Built to Last“ upright and a robust construction with no thin metal or plastic components means these forklifts are suitable for use under even the toughest conditions.

## Driver's Compartment

The driver accesses his ergonomically designed compartment via a large, low positioned perforated non-slip metal step. A grab handle on the drivers side of entry makes it easy to climb up and down. A full width rubber floor covering in the footwell prevents slippage. A rubber isolated operator cell provides a quiet, comfortable and spacious environment for the operator.

The adjustable steering column (38°) with spoke steering wheel and an easy-to adjust, yet comfortable CLARK seat together with impressive leg room allow perfect adaptation to any driver.

Automotive style foot pedals and fully directional cowl-mounted control levers with international symbols avoid confusion for any operator.

The operating data is displayed in real-time on the clear display. A low front cowl and ingenious narrow profile arrangement of the chains and hoses on the upright ensure a wide field of vision for the driver. An ideally positioned foot operated parking brake, completes this driver's compartment.

## Engine, Transmission

The CLARK C15-20s forklifts with LPG or diesel power enable excellent acceleration and high driving performance. A Yanmar 4TNE88 diesel engine with 28,8 kW at 2400 revolutions per minute is just as impressive as the LPG propelled Mitsubishi 4G63 with 2.0 liters.

Both engine versions are connected to a proven CLARK own TA12 single speed, full reversing, powershift transaxle with high stall ratio industrial torque converter, full-floating drive axles, and drum/shoe brake.

To protect your investment, the temperature of the engine and transmission is constantly monitored and in the event of design limits being exceeded the engine is automatically switched off.

All engines comply with EU directives ensuring low noise and exhaust emissions.

## Brake system

A drum/shoe brake ensures a reliable high level of safety. Power assisted service brakes ensure that the work is undertaken in a relaxed and stress free manner with full focus on the task in hand. A stress free comfortable operator, works always at his peak ensuring optimum productivity over the complete shift.

## Steering system

The hydrostatic power steering eliminates steering Kick-Back, makes steering easy and reaches full lock with just a few turns of the steering wheel. The steering axle has pivotal bearings mounted in rubber steel elements. The spherical bearing mounted

short tie rods are adjustment free and guarantee precise and continuous driving in a straight line. The double acting steer cylinder ensures precise and direct steering. The axle kingpins are mounted in lubricated tapered roller bearings for long service life.

## Hydraulic system

A 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.

A high-capacity pump provides adequate oil supply for the upright and the hydrostatic steering. A priority distributor ensures steering priority in all conditions. Load handling is controlled via a load sensitive-response and precise control valve. A safety valve provides extra safety and prevents an uncontrolled lowering of the load at all times.

## Upright

The clear-view uprights are available in Standard, Hilo and Triplex versions. The heavy duty interlocked narrow profiles provide high strength even under the heaviest load. Adjustable sealed canted (Angled) rollers minimize deflection particularly when handling off-set loads.

The tilt cylinders are mounted in spherical bearings. This consequently extends the service life of the complete cylinder by preventing premature leaks due to cylinder rod deflection. An integral tilt-lock valve prevents unintentional tilting of the upright when the power is off. The heavy duty tapered forged forks with hook mounting are adjustable and locked by individual pins.

An 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. The sturdy fork carriage with adjustable side thrust rollers enhances the durability of this design, preventing carriage „Jamming“ when handling off-set loads.

## Additional standard equipment

Front headlights, direction indicator lights, combination rear lights with brake lights and white reversing light, pneumatic tyres, paintwork in the bright safety colour „CLARK Green“, driver's compartment and upright in black, rims in white.

## Additional equipment

SE tyres (6.5-10), Non-marking tyres (6.5-10), heated cabs, integrated or hook on sideshifts, various other attachments, fuel cap lock, quick-release couplings, various seats, acoustic reversing alarm, swingdown LPG tank bracket, safety air cleaner element and much more.

## Security

The C15-20s series is CE certified and corresponds to all European safety standards for forklift trucks.

Talk to your CLARK dealer to find the optimum equipment for you.

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