

# C 20/25/30/35

Diesel or LPG engine

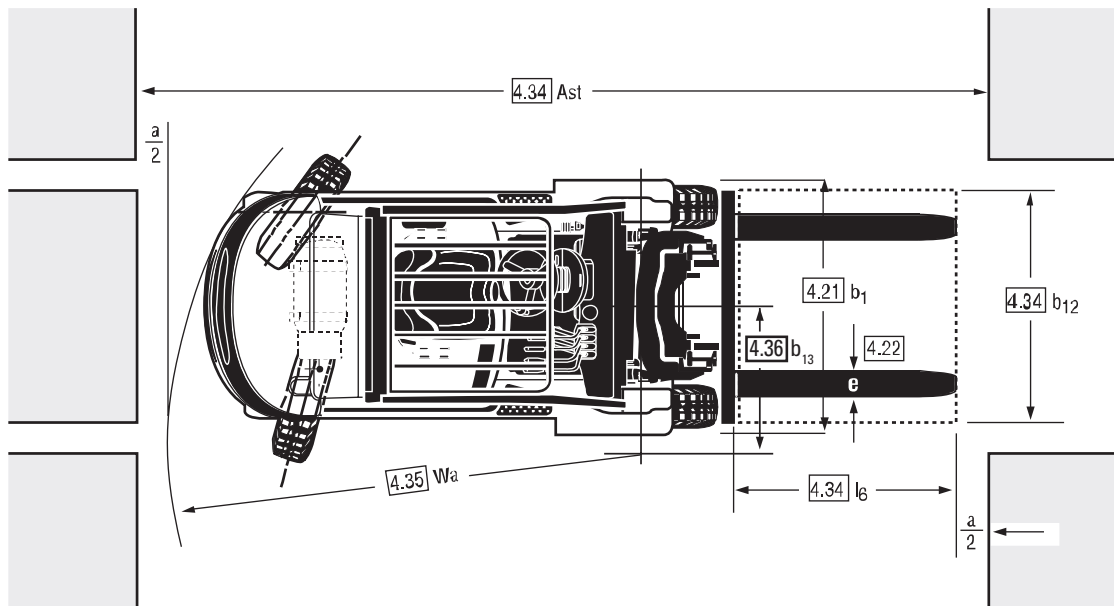
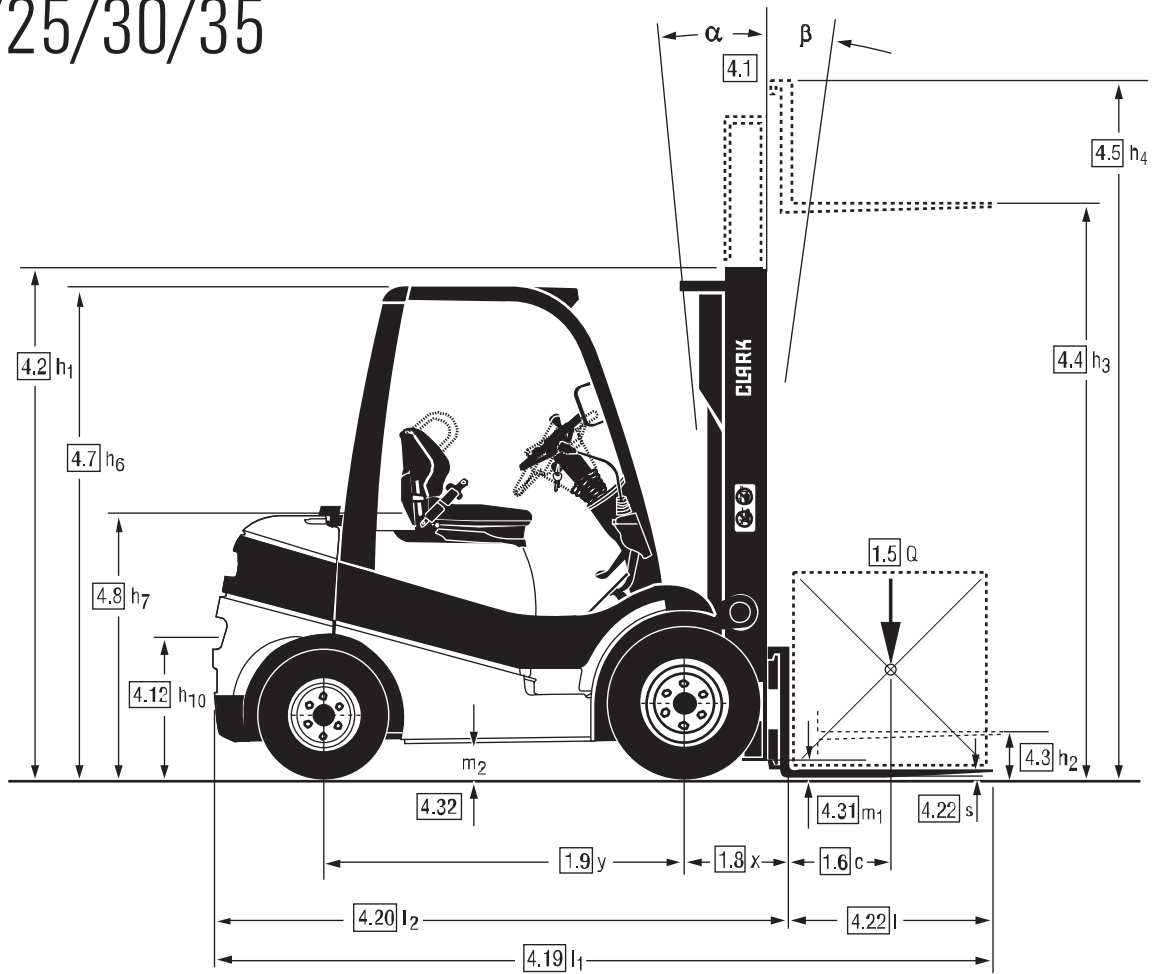
Pneumatic or Superelastic tyre

2.000 kg 2.500 kg 3.000 kg 3.500 kg



# DIMENSIONS

## C20/25/30/35



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

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

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

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

$$a = 200$$

For corresponding data see  
Specification Chart.

# SPECIFICATIONS

## Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK	CLARK
Specifications	1.2 Manufacturer's designation	<b>C20D</b>	<b>C25D</b>	<b>C30D</b>	<b>C35D</b>
	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)	455	455	455	475
	1.9 Wheelbase y (mm)	1620	1620	1700	1700
	WT	2.1 Service weight kg	3411	3755	4189
2.2 Axle loading, laden front/ rear kg		4854/577	5576/679	6372/816	6901/1025(7069/1057)
2.3 Axle loading, unladen front/ rear kg		1675/1736	1602/2153	1687/2502	1697/2929
Tyres, Chassis	3.1 Tyre type, P = pneumatic, SE = superelastic, C = cushion 1)	P	P	P	P
	3.2 Tyre size, front	7X12 -14PR	7X12 -14PR	28X9x15 -14PR	250x15-18PR
	3.3 Tyre size, rear	6X9 -10PR	6X9 -10PR	6.50x10-12PR	6.50x10-12PR
	3.5 Wheels, number front/rear (x = drive wheels)	2X/2	2X/2	2X/2	2X/2
	3.6 Tread, front b10 (mm)	994	994	1028	1050
	3.7 Tread, rear b11 (mm)	904	904	912	912
	Dimensions	4.1 Tilt of upright/fork carriage, $\alpha/\beta$ Grad	10/8	10/8	10/8
4.2 Height, upright lowered h1(mm)		2165	2165	2180	2200
4.3 Freelif h2(mm)		110	110	110	115
4.4 Lift height 2) h3(mm)		3300	3300	3300	3165
4.5 Height, upright extended h4(mm)		3897	3897	3897	3903
4.7 Height overheadguard Std. (Cabin 5) h6(mm)		2165(2180)	2165(2180)	2180(2195)	2195(2210)
4.8 Seat height h7(mm)		1139	1139	1139	1139
4.12 Coupling height h10(mm)		410	410	410	410
4.19 Overall length l1(mm)		3566	3628	3738	3837
4.20 Length to face of forks l2(mm)		2496	2558	2668	2770
4.21 Width b1, b2 (mm)		1187	1187	1237	1315
4.22 Fork dimensions s • e • l (mm)		45X100X1070	45X100X1070	45X122X1070	50X122X1070
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)		1041	1041	1041	1143
4.31 Ground clearance minimum m1 (mm)		135	135	150	170
4.32 Ground clearance centre of wheelbase m2 (mm)		155	155	165	165
4.33 Aisle width for pallets 1000 x 1200 crossways Ast(mm)		3900	3955	4060	4155
4.34 Aisle width for pallets 800 x 1200 lengthways Ast(mm)		4100	4155	4260	4355
4.35 Turning radius (mm)		2245	2300	2405	2480
4.36 Internal turning radius b13 (mm)		825	825	852	889
Performances	5.1 Travel speed laden/unladen km/h	19/19.9	19/19.9	20/20.6	20.6/21.2
	5.2 Lift speed laden/unladen m/s	0.56/0.65	0.55/0.65	0.54/0.65	0.50/0.63
	5.3 Lowering speed laden/unladen m/s	0.47/0.43	0.47/0.43	0.47/0.43	0.47/0.43
	5.6 Max. drawbar pull laden/unladen 3) N	24162/9859	24309/9427	22082/9928	20503/9987
	5.8 Max. gradeability laden/unladen 3) %	51.1/23	43.4/20.1	33.0/19.4	26.5/17.6
	5.9 Acceleration time laden/unladen (0 -15 m) s	4.6/4.0	4.6/4.0	4.6/4.0	4.6/4.0
	5.10 Service brake	Drum&Shoe	Drum&Shoe	Drum&Shoe	Drum&Shoe
I.C.- Engine	7.1 Manufacturer /Type 5)	Yanmar 4TNE98	Yanmar 4TNE98	Yanmar 4TNE98	Yanmar 4TNE98
	7.2 Rated output acc. SAE J 1349 kW	44.3	44.3	44.3	44.3
	7.3 Rated speed acc. SAE J 1349 min-1	2300	2300	2300	2300
	7.4 No. of cylinders/ displacement /cm3	4/3319	4/3319	4/3319	4/3319
	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	140
	8.3 Oil volume for attachments l/min	-	-	-	-
	8.4 Sound level, driver's ear acc. EN 12053 dB (A)	81	81	81	81
	8.5 Towing coupling, class/type DIN	-	-	-	-

\*1) Optional with super-elastic tyres \*2) Further lift heights see upright table \*3) At friction coefficient  $\mu=0.6$  \*4) Diesel = TIER 3 /LPG = TIER 0 (MMC) and TIER 4 = HMC Motor (Option)  
 \*5) Height overheadguard with Radio +60m (radio antenna)

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 Specifications acc. to VDI 2198

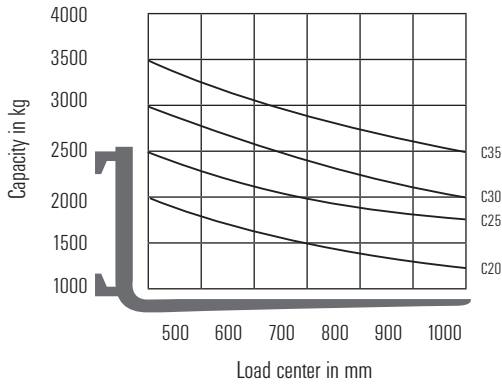
1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK	CLARK
Specifications	1.2 Manufacturer's designation	<b>C20L</b>	<b>C25L</b>	<b>C30L</b>	<b>C35L</b>
	1.3 Drive unit Diesel, L.P. Gas	LPG	LPG	LPG	LPG
	1.4 Operator type stand on/ driver seated	Driver Seated	Driver Seated	Driver Seated	Driver Seated
	1.5 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)	455	455	455	475
	1.9 Wheelbase y (mm)	1620	1620	1700	1700
WT	2.1 Service weight kg	3301	3645	4078	4516
	2.2 Axle loading, laden front/ rear kg	4817/484	5538/607	6332/747	7005/1011
	2.3 Axle loading, unladen front/ rear kg	1638/1663	1565/2080	1646/2432	1656/2860
Tyres, Chassis	3.1 Tyre type, P = pneumatic, SE = superelastic, C = cushion 1)	P	P	P	P
	3.2 Tyre size, front	7X12-14PR	7X12-14PR	28X9X15-14PR	250X15-18PR
	3.3 Tyre size, rear	6X9-10PR	6X9-10PR	6.50x10-12PR	6.50x10-12PR
	3.5 Wheels, number front/ rear (x = drive wheels)	2X/2	2X/2	2X/2	2X/2
	3.6 Tread, front b10 (mm)	994	994	1028	1050
	3.7 Tread, rear b11 (mm)	904	904	912	912
Dimensions	4.1 Tilt of upright/ fork carriage, $\alpha/\beta$ Grad	10/8	10/8	10/8	10/8
	4.2 Height, upright lowered h1 (mm)	2165	2165	2180	2200
	4.3 Freelif h2 (mm)	110	110	110	115
	4.4 Lift height 2) h3 (mm)	3300	3300	3300	3165
	4.5 Height, upright extended h4 (mm)	4519	4519	4519	4384
	4.7 Height overheadguard Std. (Cabin 5) h6 (mm)	2165(2180)	2165(2180)	2180(2195)	2195(2210)
	4.8 Seat height h7 (mm)	1139	1139	1139	1139
	4.12 Coupling height h10 (mm)	410	410	410	410
	4.19 Overall length l1 (mm)	3566	3628	3738	3837
	4.20 Length to face of forks l2 (mm)	2496	2558	2668	2770
	4.21 Width b1, b2 (mm)	1187	1187	1237	1315
	4.22 Fork dimensions s • e • l (mm)	45X100X1070	45X100X1070	45X122X1070	50X122X1070
	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)	1041	1041	1041	1143
	4.31 Ground clearance minimum m1 (mm)	135	135	150	170
	4.32 Ground clearance centre of wheelbase m2 (mm)	155	155	165	165
	4.33 Aisle width for pallets 1000 x 1200 crossways Ast (mm)	3900	3955	4060	4155
4.34 Aisle width for pallets 800 x 1200 lengthways Ast (mm)	4100	4155	4260	4355	
4.35 Turning radius (mm)	2245	2300	2405	2480	
4.36 Internal turning radius b13 (mm)	1018	1018	1043	1082	
Performances	5.1 Travel speed laden/ unladen km/h	20.3/20.9	20.1/20.5	20.2/21.0	21.5/22.3
	5.2 Lift speed laden/ unladen m/s	0.49/0.55(0.55/0.58)	0.48/0.55(0.54/0.58)	0.47/0.55(0.53/0.58)	0.52/0.58
	5.3 Lowering speed laden/ unladen m/s	0.47/0.43	0.47/0.43	0.47/0.43	0.47/0.43
	5.6 Max. drawbar pull laden/unladen 3) N	15431/9643(22112/9643)	15568/9212(22279/9212)	14018/9692(22112/9643)	18639/9751
	5.8 Max. gradeability laden/unladen 3) %	30.7/23.6(46.4/23.6)	26.3/20.6(39.4/20.6)	20.4/19.7(30.3/19.7)	17.3
	5.9 Acceleration time laden/ unladen (0 - 15 m) s	4.6/4.0 (-/-)	4.6/4.0 (-/-)	4.6/4.0 (-/-)	4.6/4.0 (-/-)
	5.10 Service brake	Drum&Shoe	Drum&Shoe	Drum&Shoe	Drum&Shoe
I.C.- Engine	7.1 Manufacturer/ Type 4)	STD: Mitsubishi/4G64 Option: (HMC/L4KB)	Mitsubishi/4G64 Option: (HMC/L4KB)	Mitsubishi/4G64 Option: (HMC/L4KB)	STD: HMC/L4KB
	7.2 Rated output acc. SAE J 1349 kW	32.8(52,5)	32.8/52,5	32.8/52,5	52,5
	7.3 Rated speed acc. SAE J 1349 min-1	2200(2650)	2200(2650)	2200(2650)	2650
	7.4 No. of cylinders/ displacement /cm3	4/2350(2359)	4/2350(2359)	4/2350(2359)	4/2359
	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	140
	8.3 Oil volume for attachments l/min	-	-	-	-
	8.4 Sound level, driver's ear acc. EN 12053 dB (A)	79	79	79	79
	8.5 Towing coupling, class/ type DIN	-	-	-	-

\*1) Optional with super-elastic tyres \*2) Further lift heights see upright table \*3) At friction coefficient  $\mu=0.6$  \*4) Diesel = TIER 3 /LPG = TIER 0 (MMC) and TIER 4 = HMC Motor (Option)  
5) Height overheadguard with Radio +60m (radio antenna)

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.

# 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 for C20/25/30 and 3165mm for C35. 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 C20/30

Mast type	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
Standard	mm	mm	mm	mm	mm	mm
	2120	1575	3339	2717		
	2680	1855	3899	3277		
	2980	2005	4199	3577		
	3300	2165	4519	3897		
	3725	2455	4944	4322	110	110
	3860	2530	5079	4457		
	4165	2800	5384	4762		
	4380	3000	5599	4977		
	4620	3230	5839	5217		
5170	3495	6389	5767			
Triple	3860	1855	5079	4483	636	1232
	4320	2005	5539	4943	786	1382
	4800	2165	6019	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	1955	4147	3520	736	1363
	3255	2115	4437	3810	881	1508
	3530	2255	4737	4110	1031	1658
	3760	2405	4917	4290	1121	1748
	3910	2480	5032	4405	1191	1818

Note: mast lowered and freelif for C30 are 15mm higher than above mentioned values

## Upright table C35

	Maximum fork height (h3)	Mast lowered (h1)	Mast extended		Free lift(h2)	
			with load backrest	without load backrest	with load backrest	without load backrest
Standard	mm	mm	mm	mm	mm	mm
	1985	1610	3204	2723		
	2545	1890	3764	3283		
	2845	2040	4064	3583		
	3165	2200	4394	3903		
	3590	2490	4809	4328	115	115
	3725	2565	4944	4463		
	4030	2835	5249	4768		
	4245	3035	5464	4983		
	4485	3265	5704	5223		
5035	3530	6254	5773			
Triple	3680	1890	4899	4418	671	1126
	4140	2040	5359	4878	821	1276
	4620	2200	5839	5358	981	1436
	5030	2340	6249	5768	1121	1576
	5340	2490	6559	6078	1271	1726
	5560	2565	6779	6298	1346	1801
	5920	2725	7139	6658	1506	1961
	6190	2835	7409	6928	1616	2071
	6650	3035	7869	7388	1816	2271
	7135	3265	8354	7873	2046	2501

Performance may vary +5% and -10% due to motor and system efficiency tolerance.

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# PRODUCT DESCRIPTION

The C20-35 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 C20-35 forklifts with LPG, gasoline or diesel power enable excellent acceleration and high driving performance. A Yanmar 4TNE98 diesel engine with 44 kW at 2500 revolutions per minute is just as impressive as the LPG propelled Mitsubishi 4G64 with 2.4 litres.

The standard engine for the C35 LPG powered truck is the powerful 2.4-liter HMC LPG-Engine. The engine is also available as an option for the Clark trucks C20/25/30. The HMC engine meets the emission standard Tier4 and includes 3 way catalytic converter as standard.

An Optional 3-way catalytic converter is also available for other LPG engines. Both engine versions are connected to a proven CLARK own TA30 single speed, full reversing, powershift transaxle with high stall ratio industrial torque converter, full-floating drive axle, 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. Low effort service brake ensures 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(only C20-C30). 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 6-roller 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, wide drive, dual drive, Non-marking tyres, heated cabs (with single or folded doors), integrated or hook on sidshefts, various other attachments, fuel cap lock, quick-release couplings, various seats, acoustic reversing alarm and much more.

## Security

The C20-35 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.

## CLARK Europe GmbH

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