

# C40/45/50s/55s

Diesel or LPG engine

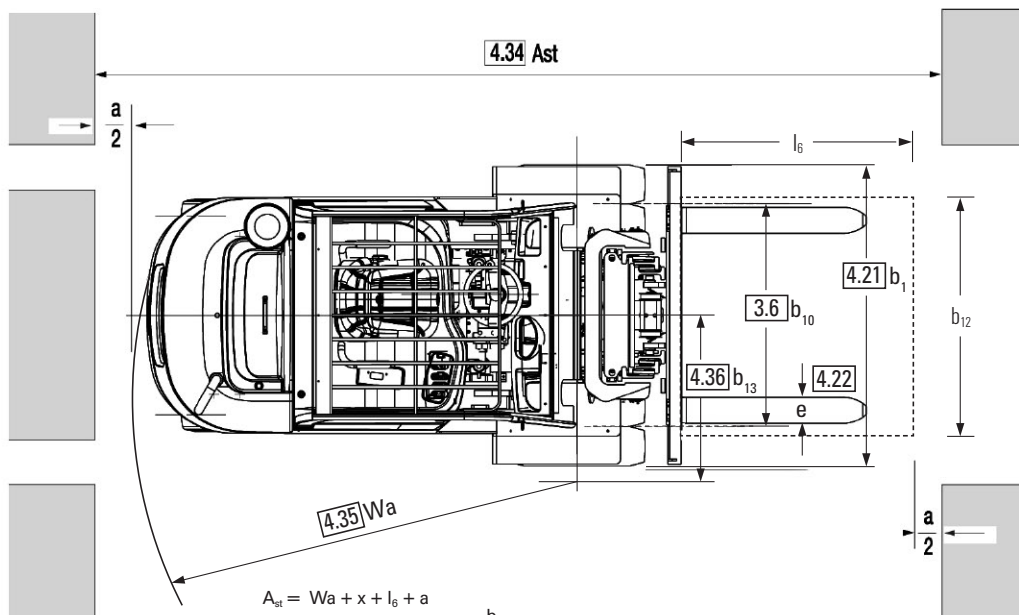
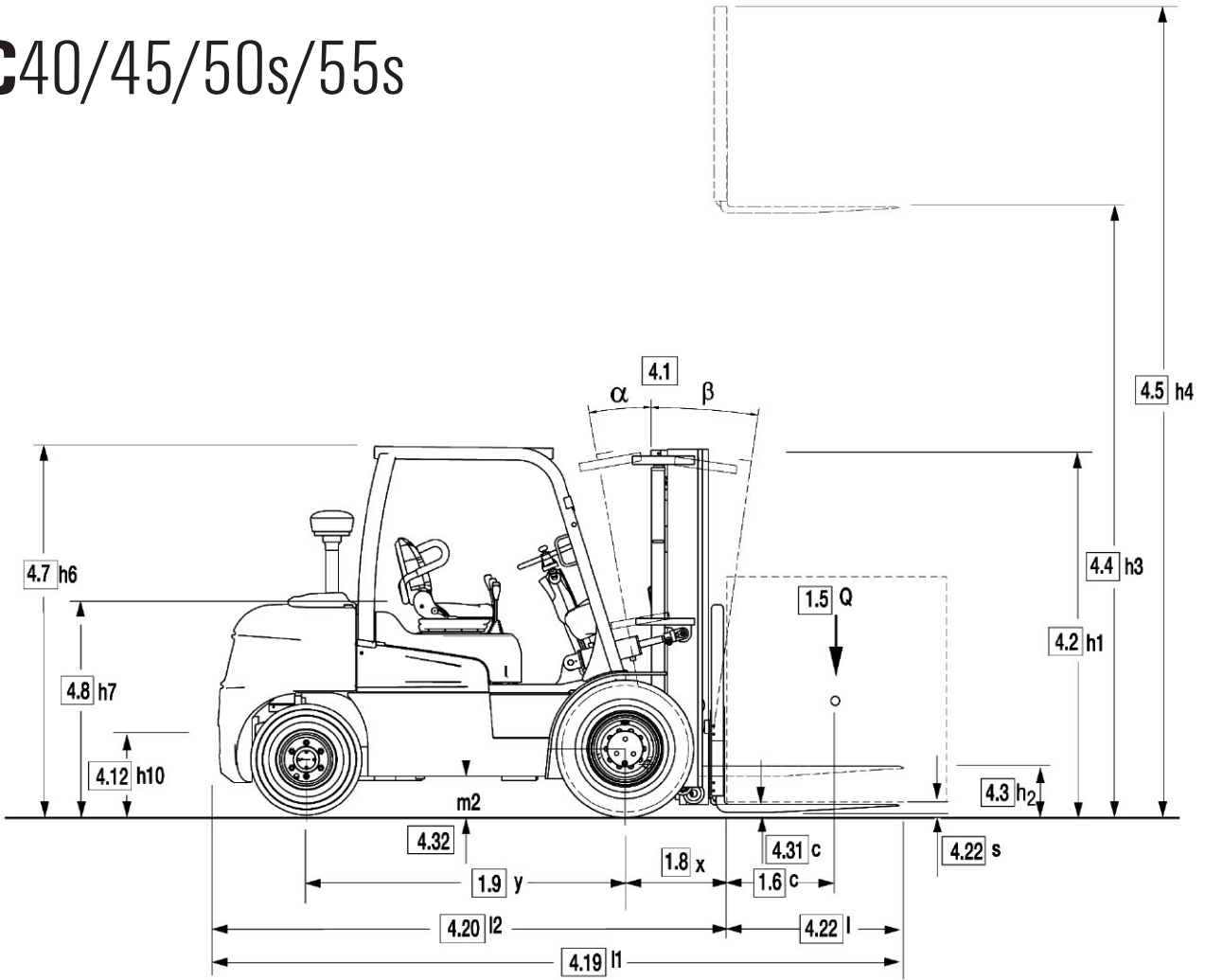
Pneumatic Tires

4000 kg   4500 kg   5000 kg   5500 kg



# DIMENSIONS

## C40/45/50s/55s



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

gilt nur bei / applies only if  $\frac{b_{12}}{2} < b_{13}$

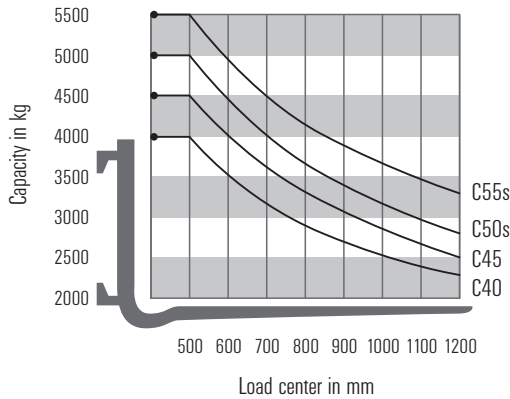
$$A_{st} = Wa + \sqrt{(l_6 + x)^2 + \left(\frac{b_{12}}{2} - b_{13}\right)^2} + a$$

gilt nur bei / applies only if  $\frac{b_{12}}{2} \geq b_{13}$

$$a = 200$$

# 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 C40/45

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*
	mm	mm	mm	mm	mm	mm
Standard	2500	1984/1957	3752	3269	156	156
	2700	2085/2057	3952	3469		
	3000	2234/2207	4252	3769		
	3300	2384/2357	4552	4069		
	3500	2484/2457	4752	4269		
	3700	2584/2557	4952	4469		
	4000	2734/2707	5252	4769		
	4500	2984/2957	5752	5269		
Triple	2450	1599/1572	3702	3219	379/352	862/835
	3700	2016/1989	4952	4469	796/769	1279/1252
	4000	2116/2089	5252	4769	896/869	1379/1352
	4300	2216/2189	5552	5069	996/969	1479/1452
	4500	2283/2256	5752	5269	1063/1036	1546/1519
	4800	2383/2356	6052	5569	1163/1136	1646/1619
	5000	2450/2423	6252	5769	1230/1203	1713/1686
	5500	2617/2590	6752	6269	1397/1370	1880/1853
	6000	2784/2757	7252	6769	1564/1537	2047/2020
	6500	2951/2924	7752	7269	1731/1704	2214/2187
HI-LO	2700	2133/2106	3951	3468	913/886	1396/1369
	3000	2283/2256	4251	3768	1063/1036	1546/1519
	3300	2433/2406	4551	4068	1213/1186	1696/1669

\* Single / Dual Tyre

## Upright table C50s

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*
	mm	mm	mm	mm	mm	mm
Standard	2500	1992/1957	3752	3269	156	156
	2700	2092/2057	3952	3469		
	3000	2242/2207	4252	3769		
	3300	2392/2357	4552	4069		
	3500	2492/2457	4752	4269		
	3700	2592/2557	4952	4469		
	4000	2742/2707	5252	4769		
	4500	2992/2957	5752	5269		
Triple	2450	1607/1572	3702	3219	387/352	870/835
	3700	2024/1989	4952	4469	804/769	1287/1252
	4000	2124/2089	5252	4769	904/869	1387/1352
	4300	2224/2189	5552	5069	1004/969	1487/1452
	4500	2291/2256	5752	5269	1071/1036	1554/1519
	4800	2391/2356	6052	5569	1171/1136	1654/1619
	5000	2458/2423	6252	5769	1238/1203	1721/1686
	5500	2625/2590	6752	6269	1405/1370	1888/1853
	6000	2792/2757	7252	6769	1572/1537	2055/2020
	6500	2959/2924	7752	7269	1739/1704	2222/2187
HI-LO	2700	2141/2106	3951	3468	921/886	1404/1369
	3000	2291/2256	4251	3768	1071/1036	1554/1519
	3300	2441/2406	4551	4068	1221/1186	1704/1669

\* Single / Dual Tyre

## Upright table C55s

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*
	mm	mm	mm	mm	mm	mm
Standard	2300	1992/1956	3552	3252	166	166
	2500	2092/2056	3752	3452		
	2800	2242/2206	4052	3752		
	3100	2392/2356	4352	4052		
	3300	2492/2456	4552	4252		
	3500	2592/2556	4752	4452		
	3800	2742/2706	5052	4752		
	4300	2992/2956	5552	5252		
	4800	3242/3206	6052	5752		
	Triple	2250	1607/1571	3502		
3500		2024/1988	4752	4452	814/778	1104/1068
3800		2124/2088	5052	4752	914/878	1204/1168
4100		2224/2188	5352	5052	1014/978	1304/1268
4300		2291/2255	5552	5252	1081/1045	1371/1335
4600		2391/2355	5852	5552	1181/1145	1471/1435
4800		2458/2422	6052	5752	1248/1212	1538/1502
5300		2625/2589	6552	6252	1415/1379	1705/1669
5800		2792/2756	7052	6752	1582/1546	1872/1836
6300		2959/2923	7552	7252	1749/1713	2039/2003
HI-LO	2600	2141/2105	3861	3561	931/895	1221/1185
	2900	2291/2255	4161	3861	1081/1045	1371/1335
	3200	2441/2405	4461	4161	1231/1195	1521/1485

\* Single / Dual Tyre

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.

# SPECIFICATIONS

## Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK	CLARK	
Specifications	1.2 Manufacturer's designation	C40D	C45D	C50sD	C55sD	
	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)	4000	4500	5000	5500
	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)	573	573	573	598
	1.9 Wheelbase	y (mm)	1950	1950	2100	2100
Weight	2.1 Service weight *5	kg	6021(6201)	6395(6567)	7033(7164)	7504(7628)
	2.2 Axle loading, laden front / rear *5	kg	9088/933(9273/927)	9878/1017(10055/1011)	10937/1096(11076/1088)	11680/1324(11811/1317)
	2.3 Axle loading, unladen front / rear *5	kg	2682/3339(2667/3334)	2671/3723(2648/3718)	3085/3948(3224/3940)	3030/4474(3162/4466)
Tires, Chassis	3.1 Tyre type, P = pneumatic, SE = superelastic, C = cushion *1		P	P	P	P
	3.2 Tyre size, front *5		8.25X15-14PR (7.50X15-12PR)	8.25X15-16PR (7.50X15-12PR)	300X15-18PR (7.50X15-12PR)	300X15-20PR (7.50X15-12PR)
	3.3 Tyre size, rear		7.00X12-14PR	7.00X12-14PR	7.00X12-14PR	7.00X12-14PR
	3.5 Wheels, number front/rear (x = drive wheels) *5		2(4)/2	2(4)/2	2(4)/2	2(4)/2
	3.6 Tread, front *5	b10 (mm)	1165(1288)	1165(1288)	1112(1288)	1112(1288)
	3.7 Tread, rear	b11 (mm)	1134	1134	1134	1134
	Dimensions	4.1 Tilt of upright/fork carriage, $\alpha / \beta$	Grad	10/8	10/8	10/8
4.2 Height, upright lowered *5		h1(mm)	2384(2357)	2384(2357)	2384(2357)	2492 (2456)
4.3 Freelift		h2(mm)	156	156	156	166
4.4 Lift height *2		h3(mm)	3300	3300	3300	3300
4.5 Height, upright extended (with LBR)		h4(mm)	4552	4552	4552	4552
4.7 Height overheadguard Std /cabin *5		h6(mm)	2324/2371 (2310/2357)	2324/2371 (2310/2357)	2324/2371 (2310/2357)	2324/2371 (2310/2357)
4.8 Seat height		h7(mm)	1265	1265	1265	1265
4.12 Coupling height		h10(mm)	460	460	460	460
4.19 Overall length		l1(mm)	4113	4163	4453	4533
4.20 Length to face of forks		l2(mm)	3043	3093	3233	3313
4.21 Width *5		b1. b2 (mm)	1400(1742)	1400(1742)	1400(1742)	1400(1742)
4.22 Fork dimensions		s • e • l (mm)	50x122x1067	50x122x1067	50x150x1219	60x150x1219
4.23 Fork carriage DIN 15173, A, B			Class III A	Class III A	Class III A	Class IV A
4.24 Fork carriage width *5		b3 (mm)	1348 (1678)	1348 (1678)	1348(1678)	1348(1678)
4.31 Ground clearance minimum *5		m1 (mm)	169(142)	169(142)	177(141)	177(141)
4.32 Ground clearance centre of wheelbase *5		m2 (mm)	212(186)	212(186)	221(185)	221(185)
4.33 Aisle width for pallets (16-b12) 1000 x 1200 crossways	Ast(mm)	4616	4651	4805	4869	
4.34 Aisle width for pallets (16-b12) 800 x 1200 lengthways	Ast(mm)	4816	4851	5005	5069	
4.35 Outside turning radius	Wa(mm)	2843	2878	3032	3071	
4.36 Smallest pivot point distance *5	b13 (mm)	980(981)	980(981)	1020(1021)	1020(1021)	
Performance	5.1 Travel speed laden/unladen *5	km/h	25.0/26.0(24.3/25.5)	24.8/26.0(24.2/25.0)	24.9/26.9(24.0/25.5)	24.7/ 26.9(23.9/25.5)
	5.2 Lift speed laden/unladen	m/s	0.52/0.56	0.51/0.56	0.50/0.56	0.49/0.56
	5.3 Lowering speed laden/unladen	m/s	0.50/0.47	0.50/0.47	0.50/0.47	0.50/0.47
	5.6 Max. drawbar pull laden/unladen *3 *5	N	41384/12729 (44532/13651)	43551/12611 (44620/13494)	43120/14779 (44699/15485)	43316/14367 (44709/15034)
	5.8 Max. gradeability laden/unladen *3 *5	%	52.2/21.4 (52.8/22.2)	47.1/20.1 (47.5/20.9)	41.1/21.3 (42.3/21.8)	37.7/19.6 (38.7/20.1)
	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
Drive line	7.1 Manufacturer / Type *6		Kubota V3800T	Kubota V3800T	Kubota V3800T	Kubota V3800T
	7.2 Rated output acc. To ISO 1585	kW	68.6	68.6	68.6	68.6
	7.3 Rated speed	min-1	2400	2400	2400	2400
	7.4 No. of cylinders / displacement	/cm <sup>3</sup>	4/3769	4/3769	4/3769	4/3769
	7.5 Fuel consumption acc. VDI-Cyclus	Diesel = l/h. 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 *4	dB (A)	83	83	83	83
	8.5 Towing coupling, class/type DIN		-	-	-	-

1) Optional with super-elastic tyres \*2Furter 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 Dual Tyre \*6 Diesel = Tier3 / LPG= Tier0

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 for Non-emission limited truck.

# Product Specifications acc. to VDI 2198

1.1 Manufacturer (Abbreviation)		CLARK	CLARK	CLARK	CLARK	
Specifications	1.2 Manufacturer's designation	C40L	C45L	C50sL	C55sL	
	1.3 Drive unit Diesel, L.P. Gas	L.P. Gas	L.P. Gas	L.P. Gas	L.P. Gas	
	1.4 Operator type stand on / driver seated	Driver seated	Driver seated	Driver seated	Driver seated	
	1.5 Load capacity / rated load	Q (Kg)	4000	4500	5000	5500
	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)	573	573	573	598
	1.9 Wheelbase	y (mm)	1950	1950	2100	2100
Weight	2.1 Service weight *5	kg	5868(6048)	6242(6414)	6880(7012)	7351(7476)
	2.2 Axle loading, laden front / rear *5	kg	8995/873(9180/868)	9785/957(9962/952)	10840/1040(10980/1032)	11581/1270(11714/1262)
	2.3 Axle loading, unladen front / rear *5	kg	2589/3279(2774/3274)	2578/3664(2755/3659)	2988/3892(3127/3885)	2932/4419(3064/4412)
Tires, Chassis	3.1 Tyre type, P = pneumatic, SE = superelastic, C = cushion *1		P	P	P	P
	3.2 Tyre size, front *5		8.25X15-14PR (7.50X15-12PR)	8.25X15-16PR (7.50X15-12PR)	300X15-18PR (7.50X15-12PR)	300X15-20PR (7.50X15-12PR)
	3.3 Tyre size, rear		7.00X12-14PR	7.00X12-14PR	7.00X12-14PR	7.00X12-14PR
	3.5 Wheels, number front/rear (x = drive wheels) *5		2x(4x)/2	2x(4x)/2	2x(4x)/2	2x(4x)/2
	3.6 Tread, front *5	b10 (mm)	1165(1288)	1165(1288)	1112(1288)	1112(1288)
	3.7 Tread, rear	b11 (mm)	1134	1134	1134	1134
	Dimensions	4.1 Tilt of upright/fork carriage, $\alpha / \beta$	Grad	10/8	10/8	10/8
4.2 Height, upright lowered *5		h1 (mm)	2384(2357)	2384(2357)	2384(2357)	2492 (2456)
4.3 Freelift		h2 (mm)	156	156	156	166
4.4 Lift height *2		h3 (mm)	3300	3300	3300	3300
4.5 Height, upright extended (with LBR)		h4 (mm)	4552	4552	4552	4552
4.7 Height overheadguard Std /cabin *5		h6 (mm)	2324/2371 (2310/2357)	2324/2371 (2310/2357)	2324/2371 (2310/2357)	2324/2371 (2310/2357)
4.8 Seat height		h7 (mm)	1265	1265	1265	1265
4.12 Coupling height		h10 (mm)	460	460	460	460
4.19 Overall length		l1 (mm)	4113	4163	4453	4533
4.20 Length to face of forks		l2 (mm)	3043	3093	3233	3313
4.21 Width *5		b1. b2 (mm)	1400(1742)	1400(1742)	1400(1742)	1400(1742)
4.22 Fork dimensions		s • e • l (mm)	50x122x1067	50x122x1067	50x150x1219	60x150x1219
4.23 Fork carriage DIN 15173, A, B			Class III A	Class III A	Class III A	Class IV A
4.24 Fork carriage width *5		b3 (mm)	1348(1678)	1348(1678)	1348(1678)	1348(1678)
4.31 Ground clearance minimum *5		m1 (mm)	169(142)	169(142)	177(141)	177(141)
4.32 Ground clearance centre of wheelbase *5		m2 (mm)	212(186)	212(186)	221(185)	221(185)
4.33 Aisle width for pallets (I6-b12) 1000 x 1200 crossways	Ast (mm)	4616	4651	4805	4869	
4.34 Aisle width for pallets (I6-b12) 800 x 1200 lengthways	Ast (mm)	4816	4851	5005	5069	
4.35 Outside turning radius	Wa (mm)	2843	2878	3032	3071	
4.36 Smallest pivot point distance *5	b13 (mm)	980(981)	980(981)	1020(1021)	1020(1021)	
Performance	5.1 Travel speed laden/unladen *5	km/h	23.3/21.8(21.9/20.9)	23.4/21.9(21.8/20.7)	23.6/21.7(21.7/20.5)	23.6/21.6(21.8/20.4)
	5.2 Lift speed laden/unladen	m/s	0.47/0.53	0.46/0.53	0.45/0.53	0.44/0.53
	5.3 Lowering speed laden/unladen	m/s	0.50/0.47	0.50/0.47	0.50/0.47	0.50/0.47
	5.6 Max. drawbar pull laden/unladen *3 *5	N	31381/12268 (33146/13200)	31479/12111 (33166/13043)	31107/14298 (33186/15004)	31195/13876 (33146/14543)
	5.8 Max. gradeability laden/unladen *3 *5	%	36.2/21.1(37.7/22.1)	39.2/19.8(34.2/20.7)	28.9/21.0(30.7/21.8)	26.6/19.3(28.1/20.0)
	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	
Drive line	7.1 Manufacturer / Type *6		GM V6 4.3	GM V6 4.3	GM V6 4.3	GM V6 4.3
	7.2 Rated output acc. To ISO 1585	kW	66,3	66,3	66,3	66,3
	7.3 Rated speed	min-1	2400	2400	2400	2400
	7.4 No. of cylinders / displacement	/cm <sup>3</sup>	6/4300	6/4300	6/4300	6/4300
	7.5 Fuel consumption acc. VDI-Cyclus	Diesel = l/h. 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 *4	dB (A)	87	87	87	87
	8.5 Towing coupling, class/type DIN		-	-	-	-

1) Optional with super-elastic tyres \*2Futher 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 pAeq, T in accordance with DIN EN 12053 (previously DIN 45635-36) \*5 Values for Dual Tyre \*6 Diesel = Tier3 / LPG= Tier0

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. Specifications for Non-emission limited truck.

# PRODUCT DESCRIPTION

The C40-55s series from CLARK marks a further development 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 cab

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.

The adjustable steering column (30°) with two spoke steering wheel and an easy-to-adjust, yet comfortable seat together with impressive leg room allow perfect adaptation to any driver.

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

The operating data is displayed in real-time on the clear TFT LCD colour 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.

Easily accessible storage compartments and an ideally positioned automotive style hand brake, set this driver's cab apart.

## Engine, Transmission

The CLARK C40-55s forklifts with LPG or diesel power enable excellent acceleration and high driving performance. These extremely robust modern engines are at the top end of the performance class. A Kubota V3800T diesel engine with 92 HP at 2400 revolutions per minute is just as impressive as the LPG propelled GM V6 with 4.3 litres. Both engine versions are connected to a proven manual two-gear transmission.

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. Heavy Duty flexible coupling of the engine/transmission and drive axle reduces vibrations and noises to a minimum.

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

## Brake system

Wet disc service brakes and an independent drum parking brake ensure 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. With 88 litres in the C40/C45 and 100 litres in the C50/55, there is always enough hydraulic oil available for the highest upright and all attachments.

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 or shaft 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, acoustic reversing alarm, paintwork in the bright safety colour "CLARK Green", driver's compartment and upright in black, rims in white.

## Additional equipment

SE tyres, air-conditioned (only for diesel engine) or heated cabs, integrated or hook on sideshifts, various other attachments, fuel cap lock, quick-release couplings, various seats, reduced driver's overhead guard height and much more.

## Security

The C40-55s 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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