

GTS20/25/30/33

Diesel or LPG engine

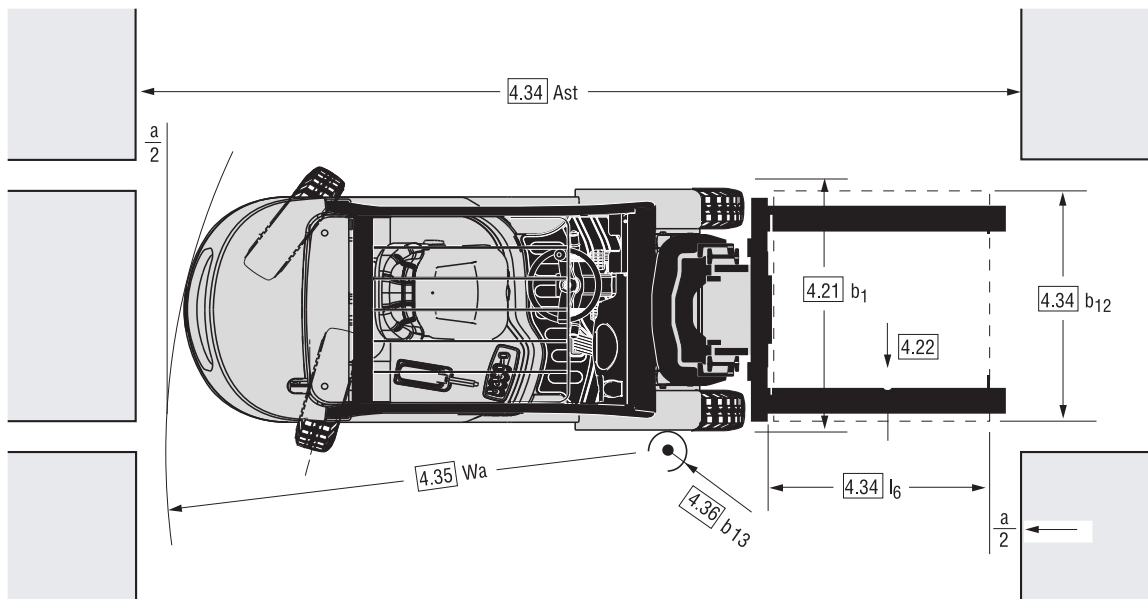
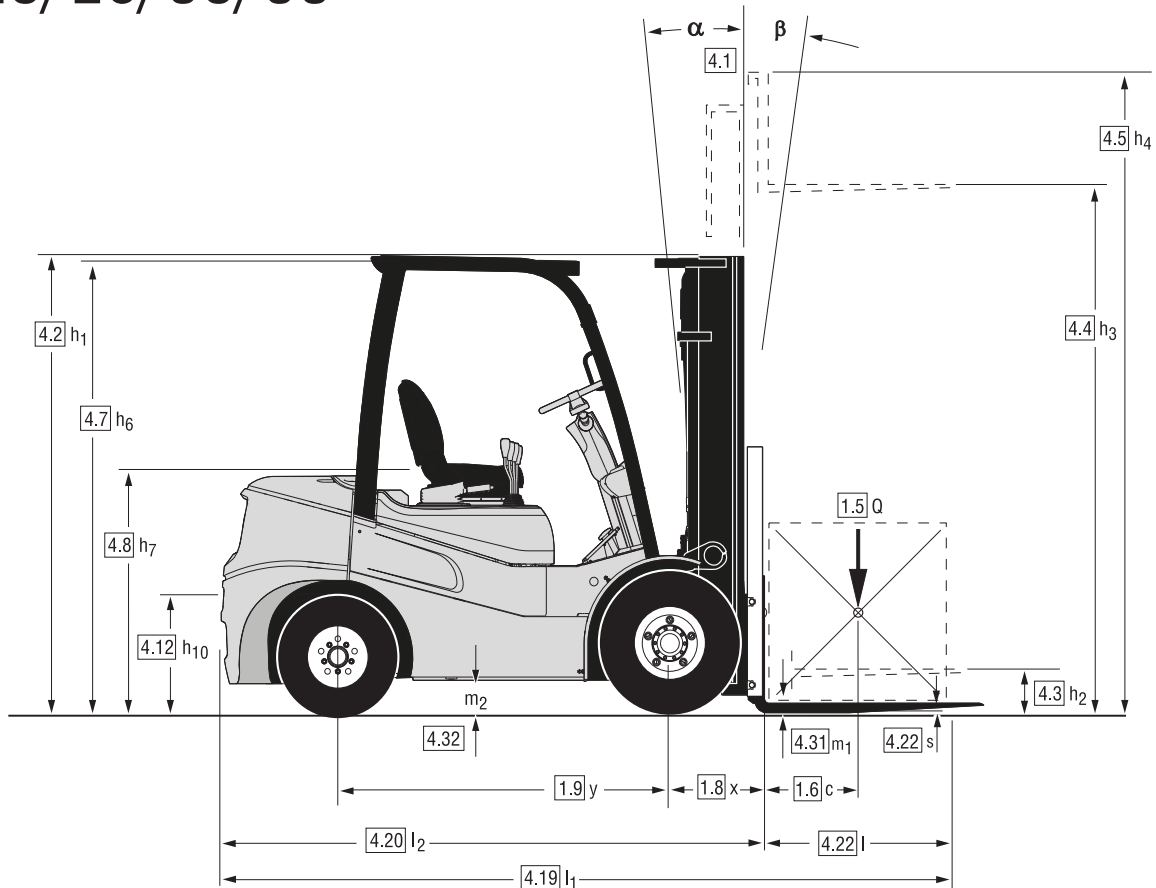
Pneumatic or Superelastic Tyres

2.000 kg 2.500 kg 3.000 kg 3.300 kg



DIMENSIONS

GTS20/25/30/33



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

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	GTS20D	GTS25D	GTS30D	GTS33D
	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	3300
	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	460	475
	1.9 Wheelbase y (mm)	1620	1620	1700	1700
WT	2.1 Service weight kg	3550	3840	4270	4430
	2.2 Axle loading, laden front/ rear kg	4800/750	5450/890	6340/930	6870/860
	2.3 Axle loading, unladen front/ rear kg	1620/1930	1476/2364	1646/2624	1677/2753
Tyres, Chassis	3.1 Tyre type, P = pneumatic, SE = superelastic 1)	P	P	P	P
	3.2 Tyre size, front	7.00X12-14PR	7.00X12-14PR	28x9x15-14PR	28x9x15-14PR
	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)	2x/2	2x/2	2x/2	2x/2
	3.6 Tread, front (wide/dual) b10 (mm)	996(1075/1204)	996(1075/1204)	1029(1109/1204)	1029(1109/1204)
	3.7 Tread, rear b11 (mm)	904	904	904	904
	Dimensions	4.1 Tilt of upright/fork carriage, α/β Grad	10/6	10/6	10/6
4.2 Height, upright lowered h1 (mm)		2165	2165	2180	2180
4.3 Freelift h2 (mm)		110	110	110	115
4.4 Lift height 2) h3 (mm)		3195	3195	3195	3165
4.5 Height, upright extended 6) h4 (mm)		4415	4415	4415	4385
4.7 Height overheadguard 7) h6 (mm)		2170	2170	2180	2180
4.8 Seat height h7 (mm)		1219	1219	1219	1219
4.12 Coupling height h10 (mm)		360	360	360	360
4.19 Overall length l1 (mm)		3643	3737	3842	3890
4.20 Length to face of forks l2 (mm)		2573	2667	2772	2820
4.21 Width (wide/dual) b1, b2 (mm)		1185(1265/1629)	1185(1265/1629)	1250(1330/1629)	1250(1330/1629)
4.22 Fork dimensions s • e • l (mm)		45x100x1070	45x100x1070	45x122x1070	50x122x1070
4.23 Fork carriage DIN 15173, A, B		CLASS II	CLASS II	CLASS III	CLASS III
4.24 Fork carriage width (wide / dual drive) b3 (mm)		1041 (1143/1549)	1041 (1143/1549)	1041 (1143/1549)	1143 (1549)
4.31 Ground clearance minimum m1 (mm)		135	135	150	150
4.32 Ground clearance centre of wheelbase m2 (mm)		150	150	165	165
4.33 Aisle width for pallets 1000 x 1200 crossways Ast (mm)	3945	4035	4140	4185	
4.34 Aisle width for pallets 800 x 1200 lengthways Ast (mm)	4145	4235	4340	4385	
4.35 Outside turning radius Wa (mm)	2290	2380	2480	2510	
4.36 Internal turning radius b13 (mm)	825	825	852	889	
Performances	5.1 Travel speed laden/unladen km/h	16,9/18,0 (22.5/21.1)	16,5/18,0 (22.4/20.7)	17,6/18,8 (23.6/22.2)	24.9/23.7
	5.2 Lift speed laden/unladen m/s	0,48/0,54 (0.53/0.55)	0,48/0,54 (0.52/0.55)	0,48/0,54 (0.50/0.55)	0,45/0,50
	5.3 Lowering speed laden/unladen m/s	0,54/0,50	0,54/0,50	0,54/0,50	0,50/0,43
	5.6 Max. drawbar pull laden/unladen 3) N	18405/6465 (21100/8070)	18470/6135 (2170/780)	16945/6635 (19385/6785)	17740/8020
	5.8 Max. gradeability laden/unladen 3) %	38.9/20.8 (42.8/23.1)	32.1/17.4(36.6/20.1)	25.2/17.0(29.0/17.1)	23.3/17.5
	5.10 Service brake	Wet disc brake	Wet disc brake	Wet disc brake	Wet disc brake
I.C.- Engine	7.1 Manufacturer / Type 4)	Yanmar 4TNE94L (ISUZU 4LE2X)	Yanmar 4TNE94L (ISUZU 4LE2X)	Yanmar 4TNE94L (ISUZU 4LE2X)	ISUZU 4LE2X
	7.2 Rated output acc. SAE J 1349 kW	34,3(46)	34,3(46)	34,3(46)	46
	7.3 Rated speed acc. DIN 70 020 min-1	2200(2650)	2200(2650)	2200(2650)	2650
	7.4 No. of cylinders / displacement /cm3	4/3053(4/2179)	4/3053(4/2179)	4/3053(4/2179)	4/2179
	7.5 Fuel consumption acc. VDI-Cyclus Diesel = l/h, L.P.-Gas = kg/h	-	-	-	-
Miscellaneous	8.1 Type of control	Hydrodyn	Hydrodyn	Hydrodyn	Hydrodyn
	8.2 Operating pressure for attachments bar	Adjustable	Adjustable	Adjustable	Adjustable
	8.3 Oil volume for attachments l/min	140	140	140	140
	8.4 Sound level, driver's ear 5) dB (A)	-	-	-	-
	8.5 Towing coupling, class/type DIN	-	-	-	-

*1) Optional with super-elastic tyres *2) Further lift heights see upright table *3) At friction coefficient $\mu = 0.6$ and laden with 1.6 km/h *4) Diesel = Yanmar (Stage 3a) or ISUZU (Stage 3b) LPG = Mitsubishi (Stage 0)
 *5) Equivalent permanent sound-pressure level L pAeq, T in accordance with DIN EN 12053 (previously DIN 45635-36) *6) With load backrest *7) Height with cabin and radio antenna + 60mm

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

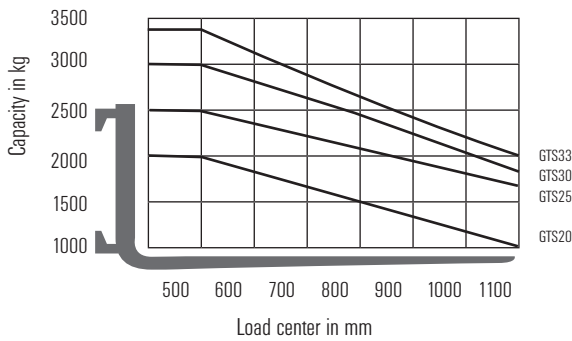
1.1 Manufacturer (Abbreviation)		Clark	Clark	Clark	Clark
Specifications	1.2 Manufacturer's designation	GTS20L	GTS25L	GTS30L	GTS33L
	1.3 Drive unit Diesel, L.P. Gas	LPG	LPG	LPG	LPG
	1.4 Operator type stand on / driver seated	Driver Seated	Driver Seated	Driver Seated	Driver Seated
	1.5 Load capacity / rated load Q (kg)	2000	2500	3000	3300
	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	460	475
	1.9 Wheelbase y (mm)	1620	1620	1700	1700
WT	2.1 Service weight kg	3506	3861	4220	4428
	2.2 Axle loading, laden front / rear kg	4195/891	4873/1068	5740/1060	6309/999
	2.3 Axle loading, unladen front / rear kg	1629/1877	1513/2348	1650/2570	1698/2730
Tyres, Chassis	3.1 Tyre type, P = pneumatic, SE = superelastic 1)	P	P	P	P
	3.2 Tyre size, front	7.00X12-14PR	7.00X12-14PR	28x9x15-14PR	28x9x15-14PR
	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)	2x/2	2x/2	2x/2	2x/2
	3.6 Tread, front (wide/dual) b10 (mm)	996(1075/1204)	996(1075/1204)	1029(1109/1204)	1029(1109/1204)
	3.7 Tread, rear b11 (mm)	904	904	904	904
	Dimensions	4.1 Tilt of upright/fork carriage, α/β Grad	10/6	10/6	10/6
4.2 Height, upright lowered h1 (mm)		2165	2165	2180	2180
4.3 Freelif h2 (mm)		110	110	110	115
4.4 Lift height 2) h3 (mm)		3195	3195	3195	3165
4.5 Height, upright extended 6) h4 (mm)		4415	4415	4415	4385
4.7 Height overheadguard 7) h6 (mm)		2170	2170	2180	2180
4.8 Seat height h7 (mm)		1219	1219	1219	1219
4.12 Coupling height h10 (mm)		360	360	360	360
4.19 Overall length l1 (mm)		3643	3737	3842	3890
4.20 Length to face of forks l2 (mm)		2573	2667	2772	2820
4.21 Width (wide/dual) b1, b2 (mm)		1185(1265/1629)	1185(1265/1629)	1250(1330/1629)	1250(1330/1629)
4.22 Fork dimensions s • e • l (mm)		45x100x1070	45x100x1070	45x122x1070	50x125x1070
4.23 Fork carriage DIN 15173, A, B		CLASS II	CLASS II	CLASS III	CLASS III
4.24 Fork carriage width (wide / dual drive) b3 (mm)		1041 (1143/1549)	1041 (1143/1549)	1041 (1143/1549)	1143 (1549)
4.31 Ground clearance minimum m1 (mm)		135	135	150	150
4.32 Ground clearance centre of wheelbase m2 (mm)		150	150	165	165
4.33 Aisle width for pallets 1000 x 1200 crossways Ast (mm)		3945	4035	4135	4165
4.34 Aisle width for pallets 800 x 1200 lengthways Ast (mm)		4145	4235	4340	4385
4.35 Outside turning radius Wa (mm)		2290	2380	2480	2510
4.36 Internal turning radius b13 (mm)		825	825	852	889
Performances	5.1 Travel speed laden/unladen km/h	17.2/18.3	16.9/18.3	18.3/19.5	19.6/20.6
	5.2 Lift speed laden/unladen m/s	0.54/0.56	0.53/0.56	0.52/0.56	0.51/0.56
	5.3 Lowering speed laden/unladen m/s	0.54/0.50	0.54/0.50	0.54/0.50	0.50/0.43
	5.6 Max. drawbar pull laden/unladen 3) N	20965/7905	21110/7470	19200/7855	17640/7835
	5.8 Max. gradeability laden/unladen 3) %	43.5/24.2	37.0/21.0	29.0/19.9	24.0/17.6
	5.10 Service brake	Wet disc brake	Wet disc brake	Wet disc brake	Wet disc brake
I.C.- Engine	7.1 Manufacturer / Type 4)	Mitsubishi 4G64 PSI fuel-system	Mitsubishi 4G64 PSI fuel-system	Mitsubishi 4G64 PSI fuel-system	Mitsubishi 4G64 PSI fuel-system
	7.2 Rated output acc. SAE J 1349 kW	51,6	51,6	51,6	51,6
	7.3 Rated speed acc. DIN 70 020 min-1	2650	2650	2650	2650
	7.4 No. of cylinders / displacement /cm3	4/2351	4/2351	4/2351	4/2351
	7.5 Fuel consumption acc. VDI-Cyclus Diesel = l/h, L.P.-Gas = kg/h	-	-	-	-
Miscellaneous	8.1 Type of control	Hydrodyn	Hydrodyn	Hydrodyn	Hydrodyn
	8.2 Operating pressure for attachments bar	Adjustable	Adjustable	Adjustable	Adjustable
	8.3 Oil volume for attachments l/min	140	140	140	140
	8.4 Sound level, driver's ear 5) 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 $\mu=0.6$ and laden with 1.6 km/h *4) Diesel = Yanmar (Stage 3a) or ISUZU (Stage 3b) LPG = Mitsubishi (Stage 0)
 *5) Equivalent permanent sound-pressure level L pAeq, T in accordance with DIN EN 12053 (previously DIN 45635-36) *6) With load backrest *7) Height with cabin and radio antenna + 60mm

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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 3195 mm for GTS20/25/30 and 3165mm for GTS33. 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 GTS 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*
	mm	mm	mm	mm	mm	mm
Standard	2015	1590	3235	2682	110	110
	2575	1870	3795	3242		
	2875	2020	4095	3542		
	3195	2180	4415	3862		
	3300	2233	4521	3968		
	3500	2333	4720	4167		
	3725	2470	4944	4391		
	3860	2545	5080	4527		
	4165	2815	5384	4831		
	4380	3015	5600	5047		
Triple	3860	1870	5079	4551	651	1179
	4320	2020	5539	5011	801	1329
	4500	2115	5719	5191	896	1424
	4800	2180	6019	5491	961	1489
	5210	2320	6429	5901	1101	1629
	5520	2470	6739	6211	1251	1779
	5740	2545	6959	6431	1326	1854
	6100	2705	7319	6791	1486	2014
	6370	2815	7589	7061	1596	2124
	6830	3015	8049	7521	1796	2324
Hi-Lo	2935	2020	4155	3627	801	1329
	3255	2180	4475	3947	961	1489
	3530	2320	4750	4222	1101	1629
	3760	2470	4980	4452	1251	1779
	3910	2545	5128	4600	1326	1854

Upright table GTS 20/25

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	2015	1575	3235	2611	110	110
	2575	1855	3795	3171		
	2875	2005	4095	3471		
	3195	2165	4415	3791		
	3300	2218	4521	3897		
	3500	2318	4720	4096		
	3725	2455	4944	4320		
	3860	2530	5080	4456		
	4165	2800	5384	4760		
	4380	3000	5600	4976		
	4620	3230	5840	5216		
	5170	3495	6390	5766		
Triple	3860	1855	5079	4483	636	1232
	4320	2005	5539	4943	786	1382
	4500	2100	5719	5123	881	1477
	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
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

Upright table GTS 33

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	1985	1590	3215	2733	115	115		
	2545	1870	3775	3293				
	2845	2020	4075	3593				
	3165	2180	4395	3913				
	3300	2233	4526	4044				
	3500	2333	4726	4244				
	3590	2470	4819	4337				
	3725	2545	4955	4473				
	4030	2815	5255	4773				
	4245	3015	5471	4989				
Triple	4485	3245	5711	5229	651	1111		
	5035	3510	6261	5779				
	3680	1870	4899	4439			801	1261
	4140	2020	5359	4899			961	1421
	4620	2180	5839	5379			1101	1561
	5030	2320	6249	5789			1251	1711
	5340	2470	6559	6099			1326	1786
	5560	2545	6779	6319			1486	1946
	5920	2705	7139	6679			1596	2056
	6190	2815	7409	6949			1796	2256
	6650	3015	7869	7409			2026	2486
	7135	3245	8354	7894				

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PRODUCT DESCRIPTION



The GTS20-33 series from CLARK marks a further highlight in the reliable, durable and powerful range of forklift by CLARK. 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.

The adjustable steering column 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 hood 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. The lever-style hand brake is easily applied in the same way as a car.

Engine, Transmission

The CLARK GTS20-33 forklifts with either a LPG or diesel powered engine, produce excellent acceleration and fast driving performance. Both engine versions are connected to a split transmission to reduce vibration & noise.

The GTS diesel powered unit is available either with the durable Yanmar engine (GTS20/25/30 only) or with the ISUZU (46 kW) engine. Both of these diesel engines are easy to service have low running and service costs and fully comply with EU directives of exhaust emissions.

The Yanmar (4TNE94L) engine (34,3kW) - meets all EU exhaust gas emission Stage IIIA regulations. The ISUZU 4LE2X) engine (46kW)-meets all EU exhaust gas emission Stage IIIB regulations. The ISUZU diesel engine uses a DOC catalyst to reduce exhaust gas emissions without the having to use a regeneration process which reduces downtimes and service costs. The exhaust gas after treatment is carried out during the truck operation. Alternative systems such as DPF (Diesel-Particle-Filter) systems require a regeneration process, which means truck downtime and higher service costs.

The GTS20-33 LPG version uses a Mitsubishi 4G64 with 2,4 litre engine and PSI (Power Systems Incorporated) fuel-system. With 51.6 kW power available it is more than an alternative to Diesel powered forklifts.

Brake system

Wet disc service brakes and an independent wet disc parking brake give a reliable high level of safety. With power assisted service brakes ensures less driver fatigue, so that operations can be carried out without driver stresses and fully focus on

the job in hand. A stress free comfortable operator, will always work at their peak bringing you optimum productivity during a 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.

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 GTS20-30). 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), integrated or hook on sidshefts, various other attachments, fuel cap lock, quick-release couplings, various seats, acoustic reversing alarm and much more.

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

CLARK Europe GmbH

Dr.-Alfred-Herrhausen-Allee 33

47228 Duisburg / Germany

Tel.: +49 (0)2065 499 13-0

Fax: +49 (0)2065 499 13-290

E-Mail: Info-europe@clarkmheu.com

www.clarkmheu.com