CLARK
THE FORKLIFT

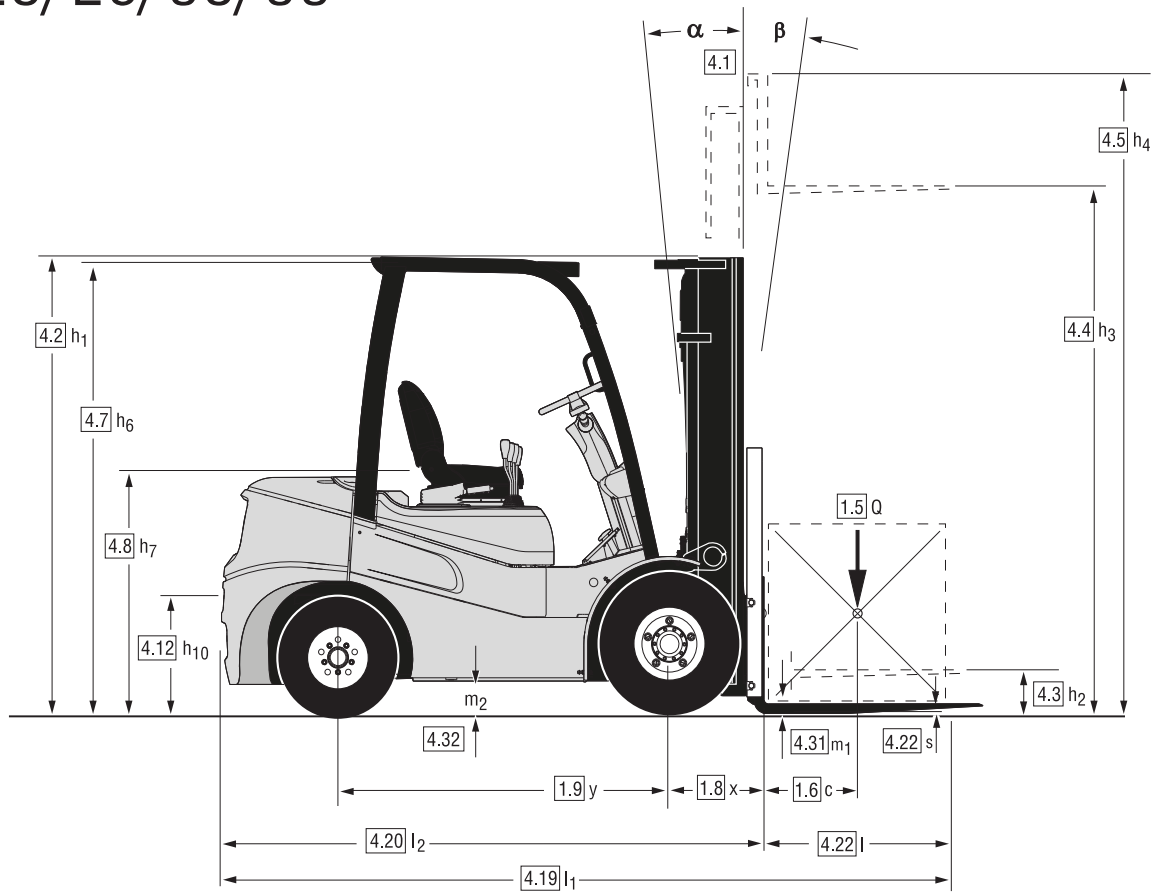
GTS20/25/30/33

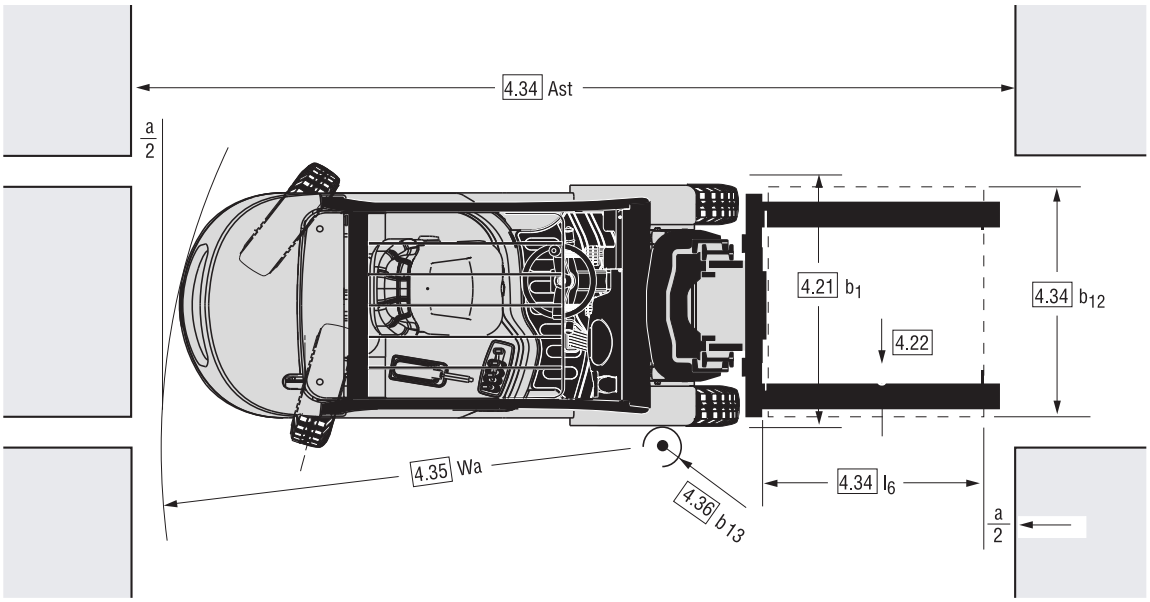
Diesel or LPG engine
Pneumatic or Superelastic Tyres
2.000 kg 2.500 kg 3.000 kg 3.300 kg

www.clarkmheu.com

DIMENSIONS

GTS20/25/30/33





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

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 / ß	°	10/6	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	4395
	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 (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 A	CLASS II A	CLASS III A	CLASS III A
	4.24 Fork carriage width (wide / dual drive)	b12 (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
	4.34 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 (21.1/22.5)	16,5/18,0 (20.7/22.4)	17,6/18,8 (22.2/23.6)	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 (19206/6903)	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	Yanmar 4TNE94L	Yanmar 4TNE94	ISUZU 4LE2X
			ISUZU 4LE2X	ISUZU 4LE2X	ISUZU 4LE2X	
	7.2 Rated output acc. to SAE J 1349	kW	34,2(46)	34,2(46)	34,2(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 8)	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 5)	dB (A)	80,5 (81)	80,5 (81)	80,5 (81)	80,5 (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) At friction coefficient μ=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 (previosly DIN 45635-36) *6) With load backrest
*7) Height with cabin and radio antenna + 60mm *8) Max. 140 bar

Product Specifications acc. to VDI 2198

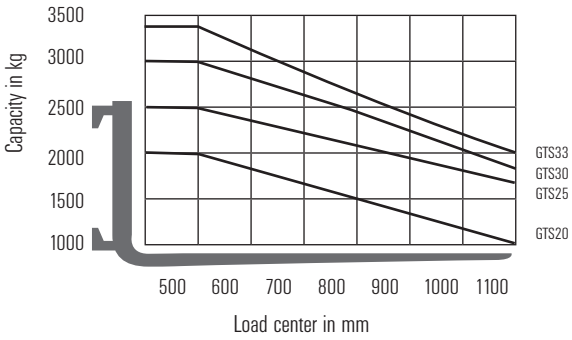
	1.1	**Manufacturer (Abbreviation)**		**CLARK**	**CLARK**	**CLARK**	**CLARK**
Specifications	1.2	Manufacturer's designation		**GTS20L**	**GTS25L**	**GTS30L**	**GTS33L**
	1.3	Drive unit Diesel, L.P. Gas		LPG	LPG	LPG	LPG
	1.4	Operator type stand on / driver seated		Driver Seated	Driver Seated	Driver Seated	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 / ß	°	10/6	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	4395
	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 (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 A	CLASS II A	CLASS III A	CLASS III A
	4.24	Fork carriage width (wide / dual drive)	b12 (mm)	-	-	-	-
	4.31	Ground clearance minimum	m1 (mm)	135	135	150	150
	4.32	Ground clearance centre of wheelbase	m2 (mm)	150	150	165	165
	4.34	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/.056	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. to 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 8)	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) Futher lift heights see upright table *3) At friction coefficient μ=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 (previosly DIN 45635-36) *6) With load backrest *7) Height with cabin and radio antenna + 60mm *8) Max. 140 bar

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 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 GTS20/25

	Maximum fork hight (h3)	Mast lowered (h1)	Mast extended		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		
Triplex	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
	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

Upright table GTS30

Mast type	Maximum fork hight (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		
	4620	3245	5840	5287		
	5170	3510	6390	5837		
Triplex	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
	7315	3245	8534	8006	2026	2554
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 GTS33

	Maximum fork hight (h3)	Mast lowered (h1)	Mast extended		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		
	4485	3245	5711	5229		
	5035	3510	6261	5779		
Triplex	3680	1870	4899	4439	651	1111
	4140	2020	5359	4899	801	1261
	4620	2180	5839	5379	961	1421
	5030	2320	6249	5789	1101	1561
	5340	2470	6559	6099	1251	1711
	5560	2545	6779	6319	1326	1786
	5920	2705	7139	6679	1486	1946
	6190	2815	7409	6949	1596	2056
	6650	3015	7869	7409	1796	2256
	7135	3245	8354	7894	2026	2486

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 GTS20-33 series from CLARK is a reliable, durable and powerful range of vehicles featuring high quality equipment. This combustion engine series boasts top-quality features as standard, e.g. wet disc brakes, optimally configured engines and the usual high-quality CLARK uprights with damping system when lifting and lowering. Low overall operating costs (TCO) combined with a well-designed and ergonomic driver's compartment further enhance the appeal of this forklift. The tough metal and vinyl parts central to its sturdy, BUILT-TO-LAST design concept ensure that this forklift will provide the years of trouble-free service associated with all CLARK machinery.

Driver's Compartment
The driver accesses his ergonomically designed compartment via a large, low, perforated non-slip metal step. A grab handle on the driver's 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 allow the driver an impressive amount of leg room. The foot pedals are conveniently arranged in the same order as in a car. Jerk-free hydraulic levers are mounted in an easily accessible position on the hood in an ergonomic arrangement. Operating data is displayed in real time on the clear display screen. 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 stowage compartments and an intuitive car-type handbrake complete this impressive driver's compartment.

Engine, Transmission
The CLARK GTS20-33 forklifts with either an LPG- or diesel-powered engine produce excellent acceleration and thrust, making them suitable for a wide range of applications. All the engine variants are quiet, low-maintenance and compliant with EU emissions regulations. Three engine variants are available. A Yanmar (4TNE94L) diesel engine with 34.2 kW combines with a split transmission to provide exceptionally comfortable, quiet handling. An ISUZU (4LE2X) diesel engine for applications involving steep gradients combined with continuous heavy nominal loads is available as an alternative for the GTS20-30 and comes standard with the GTS33. For LPG use, an MMC-PSI (4G64) with an impressive 51.6 kW of power and a PSI fuel system is fitted. Sixteen valves ensure plenty of torque and map-controlled ignition means the ignition time is electronically regulated and the available power used to the maximum effect. All the engine variants use a continuously variable automatic CLARK powershift transmission. This transmission forms a compact unit with the drive axle and is connected directly to the engine. To protect your investment, the temperature of the engines and transmission is monitored and a cut-off mechanism intervenes if the parameters are exceeded.

Split transmission
The engine and transmission are separate from the drive axle and mounted in rubber dampers, which significantly reduces vibrations for the driver and makes for a more pleasant, smoother ride. Driver fatigue is also greatly reduced, resulting in a significant increase in productivity.

Maintenance-free wet disc brakes
Enclosed, oil-cooled wet disc brakes are fitted as standard. The energy needed to operate the brake pedal has been reduced by up to 50%, which is a significant decrease in the amount of effort for the operator when compared with drum brakes. There is no longer any vehicle downtime due to servicing the brake system as the disc brakes are fully enclosed and oil cooled. The oil used is almost completely maintenance-free, so there are practically no service costs in comparison with forklifts fitted with drum brakes.

Steering system
The hydrostatic power steering system makes steering easy, with full lock reached in just a few turns of the wheel. Impacts from bumpy roads are cushioned. The steering axle has pivotal bearings mounted in rubber steel elements. The short tie rods are adjustment-free and guarantee precise and continuous driving in a straight line. The 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. A high-capacity pump provides adequate oil supply for the upright and the hydrostatic steering. Load handling is controlled via a control valve with a sensitive and precise response.

Upright
The clear-view uprights for the GTS20-30 are available in Standard, Hilo and Triplex versions. The heavy-duty interlocked narrow profiles provide high strength even under the heaviest load. A hydraulic damping system reduces impacts and vibrations during the transition between the individual lifting stages. The sturdy 6-roller fork carriage enhances the durability of this design, even during heavy-duty use.

Additional standard equipment
Front headlights, direction indicator lights at the front, pneumatic tyres, combination rear lights with brake lights and white reversing light, vinyl seat, paintwork in the bright CLARK Green safety colour, driver's compartment and upright in black, wheel rims in white.

Additional equipment
SE tyres, wide drive, dual drive, non-marking tyres, integrated or hook-on sideshifts, fuel cap lock, additional hydraulic functions, quick-release couplings, rear-view mirror, strobe lights, various seats.

Safety
The GTS20-33 series is CE certified and conforms to all European safety standards for industrial trucks.

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

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