

TECHNICAL SPECIFICATIONS

FD/FGE 15-35(C)-E3

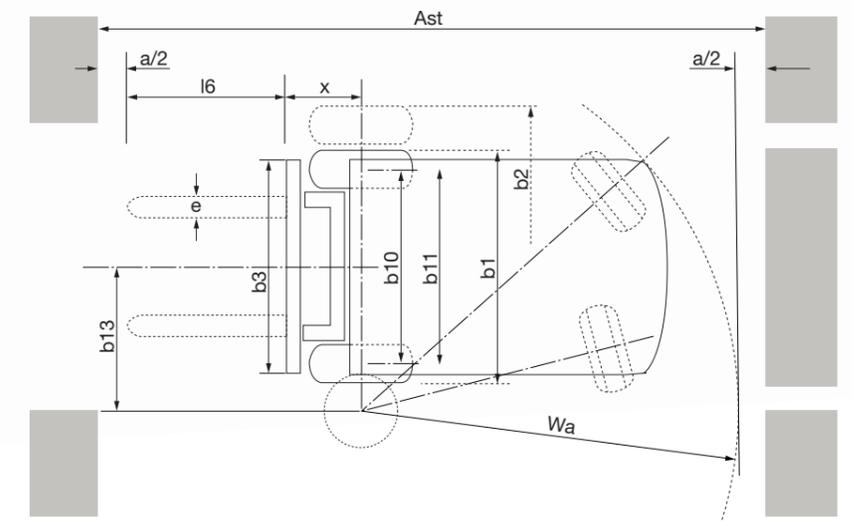
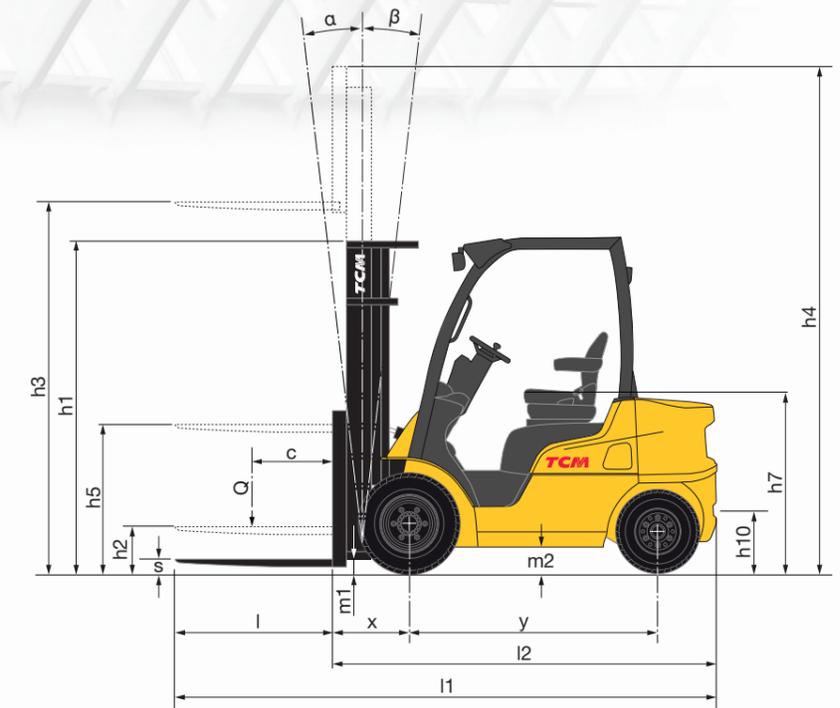


FD/FGE15-35(C)-E3

STANDARD SPECIFICATIONS

CHARACTERISTICS			TCM Forklifts - LPG						
1.01	Manufacturer		FGE15-E3	FGE18-E3	FGE20C-E3	FGE20-E3	FGE25-E3	FGE30-E3	FGE35-E3
1.02	Manufacturer's model designation								
1.03	Power source: (battery, diesel, LP gas, petrol)		LPG	LPG	LPG	LPG	LPG	LPG	LPG
1.04	Operator type: pedestrian, (operator)-standing, -seated		Seated	Seated	Seated	Seated	Seated	Seated	Seated
1.05	Load capacity	Q (kg)	1500	1750	2000	2000	2500	3000	3500
1.06	Load center distance	c (mm)	500	500	500	500	500	500	500
1.08	Load distance, axle to fork face	x (mm)	400	400	415	455	460	495	495
1.09	Wheelbase	y (mm)	1400	1400	1400	1600	1600	1700	1700
WEIGHT									
2.01	Truck weight, without load / including battery (simplex mast, lowest lift height)	kg	2490	2690	3010	3300	3600	4240	4630
2.02	Axle loading with maximum load, front/rear (simplex mast, lowest lift height)	kg	3510/460	3870/540	4320/660	4600/670	5390/680	6470/770	7180/950
2.03	Axle loading without load, front/rear (simplex mast, lowest lift height)	kg	1040/1430	990/1670	1010/1970	1410/1860	1390/2180	1710/2530	1630/3000
WHEELS, DRIVE TRAIN									
3.01	Tyres: V=solid, L=pneumatic, SE=solid pneumatic - front/rear		SE / SE	SE / SE	SE / SE	SE / SE	SE / SE	SE / SE	SE / SE
3.02	Tyre dimensions, front		6,50-10	6,50-10	6,50-10	7,00-12	7,00-12	28x9-15	250-15
3.03	Tyre dimensions, rear		5,00-8	5,00-8	5,00-8	6,00-9	6,00-9	6,50-10	6,50-10
3.05	Number of wheels, front/rear (x=driven)		2x / 2	2x / 2	2x / 2	2x / 2	2x / 2	2x / 2	2x / 2
3.06	Track width (centre of tyres), front	b10 (mm)	890	890	890	960	960	1060	1060
3.07	Track width (centre of tyres), rear	b11 (mm)	900	900	900	980	980	980	980
DIMENSIONS									
4.01	Mast tilt, forwards/backwards	α/β °	6/10	6/10	6/10	6/10	6/10	6/10	6/10
4.02	Height with mast lowered (see tables)	h1 (mm)	2140	2140	2140	2145	2145	2165	2280
4.03	Free lift (see tables)	h2 (mm)	115	115	115	140	140	140	140
4.04	Lift height (see tables)	h3 (mm)	3300	3300	3300	3300	3300	3300	3300
4.05	Overall height with mast raised	h4 (mm)	4355	4355	4355	4355	4355	4355	4355
4.07	Height to top of overhead guard	h6 (mm)	2140	2140	2140	2145	2145	2165	2175
4.08	Seat height	h7 (mm)	930	930	930	940	940	990	990
4.12	Tow coupling height	h10 (mm)	290	290	290	310	310	330	340
4.19	Overall length	l1 (mm)	3330	3370	3425	3555	3630	3805	3865
4.20	Length to fork face (includes fork thickness)	l2 (mm)	2260	2300	2355	2485	2560	2735	2795
4.21	Overall width	b1/b2 (mm)	1065/-	1065/-	1065/-	1150 / 1640	1150 / 1640	1275/1710	1290/1710
4.22	Fork dimensions (thickness, width, length)	s / e / l (mm)	35x100x1100	35x100x1100	40x100x1100	40x100x1100	40x100x1100	45x120x1100	45x120x1100
4.23	Fork carriage to DIN 15 173 A/B/no		2A	2A	2A	2A	2A	3A	3A
4.24	Fork carriage width	b3 (mm)	920	920	920	1000	1000	1000	1000
4.31	Ground clearance under mast, with load	m1 (mm)	110	110	110	115	115	135	150
4.32	Ground clearance at center of wheelbase, with load (forks lowered)	m2 (mm)	135	135	135	135	135	165	170
4.33	Working aisle width with 1000 x1200 mm pallets, crosswise	Ast (mm)	3550	3580	3635	3855	3890	4075	4135
4.34a	Working aisle width with 800 x1200 mm pallets, crosswise	Ast (mm)	3350	3380	3435	3655	3690	3875	3935
4.34b	Working aisle width with 800 x1200 mm pallets, lengthwise	Ast (mm)	3750	3780	3835	4055	4090	4275	4335
4.35	Turning circle radius	Wa (mm)	1950	1980	2020	2200	2230	2380	2440
4.36	Minimum distance between centers of rotation	b13 (mm)	555	555	555	715	715	780	780
PERFORMANCE									
5.01	Travel speed, with/without load	km/h	19,0/19,5	19,0/19,5	19,0/19,5	18,5/19,0	18,5/19,0	18,0/18,5	18,5/19,0
5.02	Lifting speed, with/without load	m/s	0,64 / 0,64	0,64 / 0,64	0,64 / 0,64	0,59 / 0,59	0,59 / 0,59	0,49 / 0,50	0,41 / 0,42
5.03	Lowering speed, with/without load	m/s	0,52 / 0,44	0,52 / 0,44	0,52 / 0,44	0,51 / 0,43	0,51 / 0,43	0,51 / 0,42	0,42 / 0,30
5.05	Rated drawbar pull, with/without load	N	15800/16100	15700/16100	15600/15900	15700/16100	15600/16100	18400/19000	17500/18200
5.06	Maximum drawbar pull, with/without load (5 min short duty)	N	-/-	-/-	-/-	-/-	-/-	-/-	-/-
5.07	Gradeability, with/without load	%	44/88	38/77	33/64	31/57	27/51	26/51	22/43
5.08	Maximum gradeability, with/without load	%	-/-	-/-	-/-	-/-	-/-	-/-	-/-
5.09	Acceleration time (10 metres) with/without load	s	-/-	-/-	-/-	-/-	-/-	-/-	-/-
5.10	Service brakes (mechanical/hydraulic/electric/pneumatic)		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
IC ENGINE									
7.01	Manufacturer / Type		EK21E	EK21E	EK21E	EK21E	EK21E	EK25E	EK25E
7.02	Rated / Nominal output to ISO 1585**	kW	43,0	43,0	43,0	43,0	43,0	47,0	47,0
7.03	Rated speed to DIN 70 020	rpm	2700	2700	2700	2700	2700	2700	2700
7.04	Number of cylinders / cubic capacity	cm³	4 / 2065	4 / 2065	4 / 2065	4 / 2065	4 / 2065	4 / 2488	4 / 2488
7.06	Max torque	Nm	161	161	161	161	161	190	190
7.07	Max torque at engine speed	rpm	1800	1800	1800	1800	1800	1600	1600
MISCELLANEOUS									
8.01	Type of drive control		Powershift 1/1	Powershift 1/1	Powershift 1/1	Powershift 1/1	Powershift 1/1	Powershift 1/1	Powershift 1/1
8.02	Maximum operating pressure for attachments	bar	180	180	180	180	180	180	180
8.03	Oil flow for attachments	l/min	60	60	60	73	73	73	73
8.04	Noise level, value at operator's ear (EN 12053)	dB(A)	79	79	79	79	79	79	79
8.05	Towing coupling design / DIN type, ref.		Pin	Pin	Pin	Pin	Pin	Pin	Pin

DIMENSIONS



MAST SPECIFICATIONS & RATED CAPACITIES

MAST TYPE	Max fork height (mm)	Overall mast height (mm)		Free lift (mm)	FGE15-E3	FGE18-E3	FGE20C-E3
		Lowered	Extended		Load Capacity (kgs) @ 500mm load centre		
		h3	h1		h4	h2/h5	
SIMPLEX	3000	1990	4055	115	1500	1750	2000
	3300	2140	4355	115	1500	1750	2000
	3500	2240	4555	115	1500	1750	2000
	3700	2340	4755	115	1500	1750	2000
	4000	2540	5055	115	1500	1750	2000
	4500	2790	5555	115	1425	1700	1950
	5000	3050	6055	115	1375	1400	1400
	5500	3300	6555	115	850	850	
DUPLEX	3000	1995	4055	975	1500	1750	2000
	3300	2140	4350	1120	1500	1750	2000
	3500	2260	4570	1240	1500	1750	2000
	4000	2585	5085	1565	1500	1750	2000
TRIPLEX	3700	1790	4755	770	1500	1750	2000
	4000	1890	5055	870	1450	1750	2000
	4300	1990	5355	970	1425	1700	1950
	4700	2140	5755	1120	1375	1625	1900
	5000	2240	6055	1220	1325	1325	1400
	5500	2430	6555	1410	850	850	
	6000	2610	7055	1590	525	525	
	6500	2850	7555	1830	350	350	
7000	3050	8055	2030	175	175		

The capacities are applicable for pneumatic shaped solid tyres (SE).

MAST TYPE	Max fork height (mm)	Overall mast height (mm)		Free lift (mm)	FGE20-E3	FGE25-E3
		Lowered	Extended		Load Capacity (kgs) @ 500mm load centre	
		h3	h1		h4	h2/h5
SIMPLEX	3000	1995	4055	140	2000	2500
	3300	2145	4355	140	2000	2500
	3500	2245	4555	140	2000	2500
	3700	2345	4755	140	2000	2500
	4000	2545	5055	140	2000	2500
	4500	2795	5555	140	2000	2500
	5000	3065	6055	140	1950	2400
	5500	3315	6555	140	1850*	2250*
DUPLEX	3000	1995	4055	980	2000	2500
	3300	2145	4350	1130	2000	2500
	3500	2265	4585	1250	2000	2500
	4000	2590	5075	1575	2000	2500
TRIPLEX	3700	1795	4755	780	2000	2500
	4000	1895	5055	880	2000	2500
	4300	1995	5355	980	2000	2500
	4700	2145	5755	1130	1950	2400
	5000	2245	6055	1230	1900	2350
	5500	2415	6555	1400	1800	2200*
	6000	2585	7055	1570	1750*	2100*
	6500	2795	7555	1780	1650*	1750*
7000	3065	8055	2050	1250*	1250*	

The capacities are applicable for pneumatic shaped solid tyres (SE).

*Capacities shown require truck equipped with dual tyres. Consult residual capacity charts for the maximum back tilt allowed, to obtain the capacities specified.

MAST TYPE	Max fork height (mm)	Overall mast height (mm)		Free lift (mm)	FGE30-E3
		Lowered	Extended		Load Capacity (kgs) @ 500mm load centre
		h3	h1		
SIMPLEX	3000	2015	4055	140	3000
	3300	2165	4355	140	3000
	3500	2265	4555	140	3000
	3700	2365	4755	140	3000
	4000	2565	5055	140	3000
	4500	2815	5555	140	3000
	5000	3115	6055	140	2900
	5500	3365	6555	140	2750
DUPLEX	3000	2045	4055	1035	3000
	3300	2165	4305	1155	3000
	3500	2285	4545	1275	3000
	4000	2610	5065	1600	3000
TRIPLEX	3700	1815	4755	805	3000
	4000	1915	5055	905	3000
	4300	2015	5355	1005	3000
	4700	2165	5755	1155	3000
	5000	2265	6055	1255	2900
	5500	2435	6555	1425	2750*
	6000	2605	7055	1595	2200*
	6500	2815	7555	1805	1750*
7000	3115	8055	2105	1250*	

The capacities are applicable for pneumatic shaped solid tyres (SE).

*Capacities shown require truck equipped with dual tyres. Consult residual capacity charts for the maximum back tilt allowed, to obtain the capacities specified.

MAST TYPE	Max fork height (mm)	Overall mast height (mm)		Free lift (mm)	FGE35-E3
		Lowered	Extended		Load Capacity (kgs) @ 500mm load centre
		h3	h1		
SIMPLEX	3000	2130	4055	140	3500
	3300	2280	4355	140	3500
	3500	2380	4555	140	3500
	3700	2480	4755	140	3500
	4000	2680	5055	140	3500
	4500	2930	5555	140	3500
	5000	3230	6055	140	3500
	5500	3480	6555	140	3200*
DUPLEX	3000	2180	4065	1170	3500
	3300	2300	4355	1290	3500
	3500	2445	4555	1435	3500
	4000	2765	5055	1755	3500
TRIPLEX	3700	1930	4755	920	3500
	4000	2030	5055	1020	3500
	4300	2130	5355	1120	3500
	4700	2280	5755	1270	3500
	5000	2380	6055	1370	3450
	5500	2550	6555	1540	2850*
	6000	2720	7055	1710	2200*
	6500	2930	7555	1920	1750*
7000	3230	8055	2220	1250*	

The capacities are applicable for pneumatic shaped solid tyres (SE).

*Capacities shown require truck equipped with dual tyres. Consult residual capacity charts for the maximum back tilt allowed, to obtain the capacities specified.

FD/FGE15-35(C)-E3

STANDARD AND OPTIONS LIST

	LPG			DIESEL
	FGE15-18-E3	FGE20C-E3	FGE25-35-E3	FD20-35-E3
GENERAL				
Dust proof kit	○	○	○	○
Line filter for torque converter	○	○	○	○
Universal joint cover powertrain	○	○	○	○
LPG bracket removed	○	○	○	-
LPG swing down bracket no tank	○	○	○	-
Tilt cylinder boot kit	○	○	○	-
Belly plate (under cover)	●	●	●	●
Large capacity battery	○	○	○	-
Fire extinguisher	○	○	○	○
Equipment bar	○	○	○	○
HYDRAULIC				
3-Way control valve, MC	●	●	●	●
3-Way control valve, FC	○	○	○	○
4-Way control valve, MC	○	○	○	○
4-Way control valve, FC	○	○	○	○
5-Way control valve, MC	-	-	○	○
5-Way control valve, FC	-	-	○	○
Single control lever MC	○	○	○	○
Dual joystick	○	○	○	○
Tilt horizontal control (*only for fingertip control)	○	○	○	○
F2 Double action button for clamp release (*cannot be combined with tilt horizontal control)	○	○	○	○
Hydraulic accumulator	○	○	○	○
MAST FORKS AND CARRIAGE				
Loose mast	○	○	○	○
Heavy load side roller (*cannot be combined with an integral side shifter)	○	○	○	○
Side shifter 920 mm	○	○	-	-
Side shifter 1000 mm	-	-	○	○
Integral side shifter 920 mm	○	○	-	-
Integral side shifter 1000 mm	○	-	○	○
Hook-on side shifting fork positioner 920 mm	○	-	○	○
Hook-on side shifting fork positioner 1000 mm	○	-	○	○
Fork deletion	○	○	○	○

KEY ● Standard ○ Optional - Not available

	LPG			DIESEL
	FGE15-18-E3	FGE20C-E3	FGE25-35-E3	FD20-35-E3
ELECTRICAL				
Reverse handle with horn button	●	●	●	●
Speed limiter	●	●	●	●
Indicator kit	○	○	○	○
LED light set	●	●	●	●
LED rear work light	○	○	○	○
Load weight indicator	●	●	●	●
Strobe light (orange)	○	○	○	○
FNR switch on adjustable armrest (*STD on fingertip control models)	○	○	○	○
'Blue point' rear light	○	○	○	○
Lights on mast (only available with Triplex mast)	-	-	○	○
USB port	○	○	○	○
LPG low level warning	○	○	○	-
OHG AND CABIN				
Grammer MSG65 vinyl seat	●	●	●	●
Grammer MSG65 cloth seat	○	○	○	○
Grammer MSG65 with heater	○	○	○	○
Grammer MSG75 air suspension cloth seat	○	○	○	○
Grammer MSG75 air suspension vinyl seat	○	○	○	○
Rear view mirrors (not available with deluxe cabin)	●	●	●	●
Tilt steering column with memory position	●	●	●	●
Convenience tray (*not available for FC models)	○	○	○	○
Acrylic rain guard	○	○	○	○
Delux cabin	○	○	○	○
Panel cabin front screen with wiper + roof	-	-	○	○
Panel cabin rear screen	-	-	○	○
Panel cabin PVC doors, LH & RH	-	-	○	○
Panel cabin steel doors	-	-	○	○
TYRES				
Solid pneumatic profile tyres	●	●	●	●
Pneumatic tyres	○	-	○	○
Solid pneumatic profile dual drive tyres	-	-	○	○
Pneumatic dual drive tyres	-	-	○	○
Non-marking solid tyres	○	○	○	○
ENVIRONMENT				
Single element air cleaner	-	-	-	●
Double element air cleaner	●	●	●	○
High-level exhaust	-	-	-	○



TCM