

FHB40-55(C)(H)-E1



ELECTRIC COUNTERBALANCE FORKLIFT TRUCK
4.0 - 5.5 TONS

REMARKABLE LEVELS OF OPERATOR COMFORT

The **TCM FHB40-55(C)(H)-E1 forklift truck** has the quietest hydraulic pump in the market. The near silent drive units dramatically reduce noise pollution, help eliminate operator fatigue and stress induced by noise pollution. This intuitive design improves visibility and boost productivity.

IMPROVED ON/OFF ACCESS



Low step height

Designed for easy access.



① Long-handled grab bar

For all driver heights and **curved battery cover** to aid swift, smooth and safe entry/exit.

② Larger Operator space with fully adjustable seat, armrest and steering wheel

For greater comfort and improved driving posture, reducing the strain for both smaller and larger drivers (up to size 50 EU shoe).

IN/OUT WORKING OPTIONS

Spacious, enclosed cabin for protection against the elements with:

- **Intuitively integrated air conditioning and instant heat** for comfortable working in hot and cold environments, with fast demisting.
- **Excellent ventilation** – gliding side windows, 10cm opening rear window or fully opening for easy exit.
- **Impressive controls' protection for most climates** – showerproof and designed for outdoor use.
- **Increased cabin stability** – rubber mounted to minimise micro-vibrations.





EFFORTLESS CONTROL

Hydraulic control levers

Ergonomically positioned to optimise comfort and are fitted as standard.

Wide range of customisable control options

Electronic finger tip control with innovative armrest

enabling fully productive operation without the need to lift the hand.



Dual joystick hydraulic controls

for enhanced control and functionality especially if thick gloves are necessary.



Mini Steering Wheel

for precise control, increased forward visibility and ultimate operator ergonomic posture.



Release interlock - to prevent accidental opening if clamp attachment is fitted.

Tilt Levelling - will automatically bring forks to horizontal position.

EFFICIENCY

With powerful energy efficient twin 16kW drive motors, the **TCM FHB40-55(C)(H)-E1 forklift truck** delivers instant torque with low energy consumption, zero emissions, zero pollution and zero vibrations.

CLEAR AND INFORMATIVE DISPLAY

Clarity of message and easily visible displays are key for operator efficiency without distractions and delays.



- **One glance access to messages** for lifting and loading, alarms, instructions, and user-friendly guidance.
- **Colour coded for message clarity** and visible at the appropriate time.
- **Display unit within the field of vision** but without distracting the operator.
- **Crystal clear display** - even visible from alongside the truck.
- **Equipment Bar to attach options** positioned to right of the dashboard for uninterrupted view of displays.

BOOST FEATURES

Power Boost

Accelerator kickdown provides an instant boost in power when needed for improved productivity.

Torque Boost

Automatically adjusts motor torque to maintain speeds over ramps and inclines. Comparable to engine truck uphill performance.





STABILITY SUPPORT SYSTEM

IMPRESSIVE STABILITY AND CONTROL:

Advanced driver assistance reducing risks when operating the truck (standard on all FHB-F1 models)



- **Curve Control** calculates and adjusts speeds according to the steering angle.
- **Hill hold** prevents truck from rolling back when on a ramp.
- **Load sensing system** constantly monitors the combination of truck, lift, tilt speeds and load weight to automatically make performance adjustments to maintain optimal truck stability at all times.
- **Improved mast sway control** for higher lifts – both tilting and side shift operation (optional).
- **Adaptive lowering control** for fast, smooth and even lowering, including the heaviest loads.



EASY/SWIFT BATTERY EXCHANGE

Quick release locks +180 degree-opening door aids swift battery changes and simplifies battery water level checks.

SAFETY

LIGHTING PACKAGE OPTIONS

WORKING, SAFETY and DRIVING LIGHTS
for increased confidence in low level light environments

Working lights

Mast (standard fit), OHG and Rear Mounted - illuminating the load and surroundings, not the truck.

Safety lights

Red Line and Spots define safe boundaries around truck and activate depending on direction of travel.

Driving lights

Low beam front, stop and tail and turn indicators and (optional) beacon.

Emergency Button

Intuitively positioned for rapid access.



The TCM FHB40-55(C)(H)-E1 forklift truck provides an all-round visibility, ultimate balance and superior lift controls, enhancing operator safety.

OUTSTANDING PERIPHERAL VISION

For greater awareness and clear line of sight when positioning, loading and manoeuvring, even in tight spaces



- Re-engineered Narrow Mast for improved visibility
- Low mounted windshield wiper
- Long handled Grab Bar in line with pillar
- Low and narrow window beam to optimize vision
- Narrow Dash and handy options bar positioned for better view
- Seat, Steering Wheel and Dashboard positions optimised for Front visibility without compromising operator Entry/Exit





NEW SAFETY LIGHTS OPTION

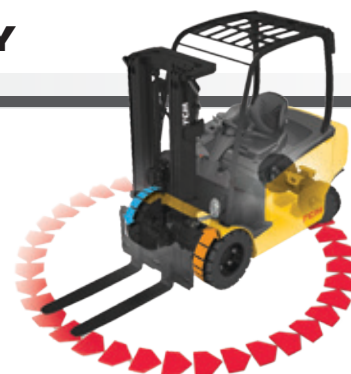
INCREASED DRIVE SENSITIVITY AND AGILITY



Simulated Differential Lock finds best available traction in slippery conditions. Can be preset to action automatically via **Trucktool®***



Adaptive speed control with rapid response to foot movement for smooth transition of power.



Independently controlled drive motors combined with 100+ degree steer axle deliver impressive 4 wheel steering and improved tight space agility.



Trucktool®* Diagnostics

- Create precise and targeted adjustments tailored to customers' specifications.
- Easy access to speedy fault diagnostics with step-by-step servicing advice.

SPECIFICATIONS

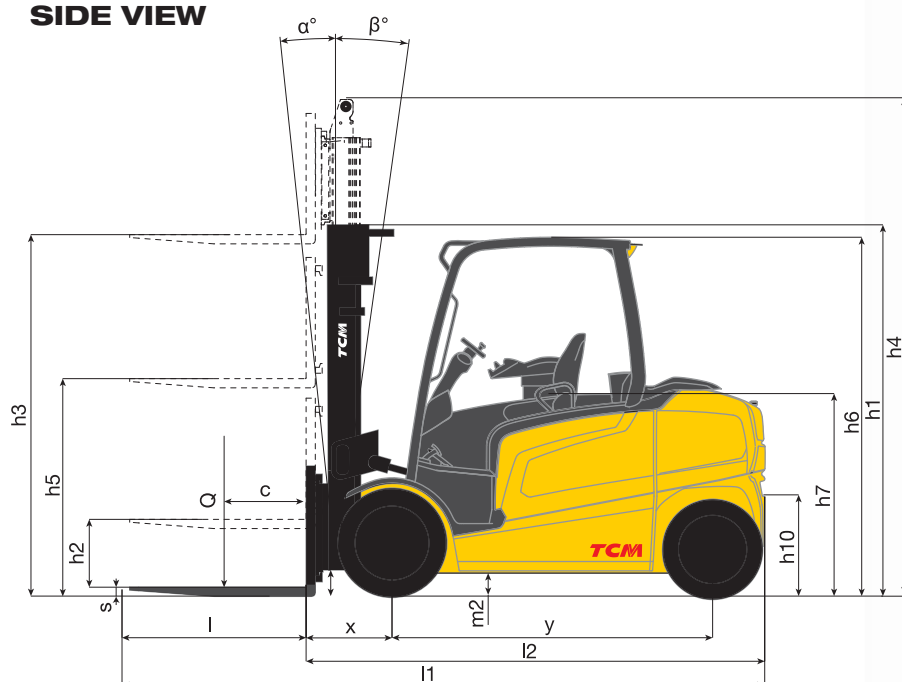
CHARACTERISTICS						
1	Manufacturer			TCM		
2	Manufacturer's model designation			FHB40-E1	FHB45-E1	FHB50C-E1
3	Power source: (battery, diesel, LPG, petrol)			Electric	Electric	Electric
4	Operator type: pedestrian, (operator) - standing, - seated			Seated	Seated	Seated
5	Load capacity	Q	(kg)	4000	4500	4990
6	Load centre distance	c	(mm)	500	500	500
7	Load distance, axle to fork face	x	(mm)	540	540	540
8	Wheelbase	y	(mm)	1946	1946	1946
WEIGHT						
9	Truck weight, without load / including battery (simple x mast, lowest lift height)		kg	7290	7648	7991
10	Axle loading with maximum load, front / rear (simple x mast, lowest lift height)		kg	10040 / 1250	10795 / 1353	11574 / 1417
11	Axle loading without load, front / rear (simple x mast, lowest lift height)		kg	3902 / 3388	3890 / 3758	3902 / 4089
WHEELS, DRIVE TRAIN						
12	Tyres: V = solid, L = pneumatic, SE = solid pneumatic - front / rear			SE	SE	SE
13	Tyre dimensions, front			250x15 (710)	250x15 (710)	355/50-15 (710)
14	Tyre dimensions, rear			7.00x12 (650)	7.00x12 (650)	7.00x12 (650)
15	Number of wheels, front / rear (x = driven)			2X / 2	2X / 2	2X / 2
16	Track width (centre of tyres), front	b10	(mm)	1143	1143	1154
17	Track width (centre of tyres), rear	b11	(mm)	1169	1169	1169
DIMENSIONS						
18	Mast tilt, forwards / backwards	α / β	°	6 / 8	6 / 8	6 / 8
19	Height with mast lowered (see tables)	h1	(mm)	2420	2420	2420
20	Free lift (see tables)	h2	(mm)	150	150	150
21	Lift height (see tables)	h3	(mm)	3300	3300	3300
22	Overall height with mast raised	h4	(mm)	4205	4205	4205
23	Height to top of overhead guard	h6	(mm)	2340	2340	2340
24	Seat height	h7	(mm)	1320	1320	1320
25	Tow coupling height	h10	(mm)	675	675	675
26	Overall length	l1	(mm)	4025	4025	4025
27	Length to fork face (includes fork thickness)	l2	(mm)	2825	2825	2825
28	Overall width	b1 / b2	(mm)	1370	1370	1450
29	Fork dimensions (thickness, width, length)	s / e / l	(mm)	50 / 150 / 1200	50 / 150 / 1200	50 / 150 / 1200
30	Fork carriage to DIN 15 173 A / B / no			3A	3A	3A
31	Fork carriage width	b3	(mm)	1190	1190	1190
32	Ground clearance under mast, with load	m1	(mm)	150	150	150
33	Ground clearance at centre of wheelbase, with load (forks lowered)	m2	(mm)	150	150	150
34	Working aisle width with 1000 x 1200 mm pallets, crosswise	Ast	(mm)	4125	4125	4125
35	Working aisle width with 800 x 1200 mm pallets, crosswise	Ast	(mm)	3938	3938	3938
36	Working aisle width with 800 x 1200 mm pallets, lengthwise	Ast	(mm)	4264	4264	4264
37	Turning circle radius	Wa	(mm)	2289	2289	2289
38	Minimum distance between centres of rotation	b13	(mm)	49	49	49
PERFORMANCE						
39	Travel speed, with / without load		km / h	18 / 20	18 / 20	18 / 20
40	Lifting speed, with / without load		m / s	0.41 / 0.53	0.38 / 0.53	0.35 / 0.53
41	Lowering speed, with / without load		m / s	0.53 / 0.51	0.52 / 0.51	0.52 / 0.51
42	Rated drawbar pull, with / without load		N	16000 / 16400	16800 / 17700	16800 / 17700
43	Maximum drawbar pull, with / without load (5 min short duty)		N	17300 / 18400	17300 / 18400	17300 / 18400
44	Gradeability, with / without load		%	15 / 23	15 / 23	14 / 22
45	Maximum gradeability with / without load		%	15.8 / 26.6	15.6 / 23.7	14.6 / 22.6
46	Acceleration time (10 metres) with / without load		s	4.6 / 3.9	4.7 / 3.9	4.8 / 4.0
47	Service brakes (mechanical / hydraulic / electric / pneumatic)			hydraulic	hydraulic	hydraulic
ELECTRIC MOTOR						
48	Drive motor capacity (60 min. short duty)		kW	2x16	2x16	2x16
49	Lift motor output at 15% duty factor		kW	34	34	34
50	Battery to DIN 43 531 / 35 / 36 A / B / C / no			DIN 43 536/A	DIN 43 536/A	DIN 43 536/A
51	Battery voltage / capacity at 5 - hour discharge		V / Ah	80 / 775	80 / 775	80 / 775
52	Battery weight		kg	1863	1863	1863
53	Energy consumption according to DIN EN 16796		kWh / h	10.2 ¹⁾	10.6 ¹⁾	11.0 ¹⁾
MISCELLANEOUS						
54	Type of drive control			AC electronic	AC electronic	AC electronic
55	Maximum operating pressure for attachments		bar	210	210	210
56	Oil flow for attachments		l / min	45	45	45
57	Noise level, value at operator's ear (EN 12053)		dB (A)	65	65	65
58	Towing coupling, type DIN type, ref			15 170	15 170	15 170

1) Measured with 60 cycles test.

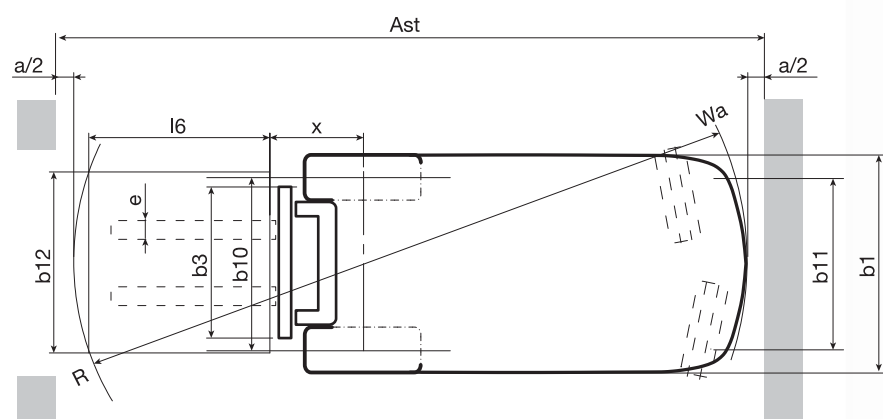
2) Measured with 45 cycles test.

Forklifts		
FHB50-E1	FHB50H-E1	FHB55H-E1
Electric	Electric	Electric
Seated	Seated	Seated
4990	5000	5500
500	600	600
540	560	560
2090	2090	2090
8347	8472	8711
11563 / 1784	12009 / 1463	12799 / 1412
4075 / 4272	4234 / 4238	4246 / 4465
SE	SE	SE
355/50-15 (710)	355/50-15 (710)	355/50-15 (710)
7.00x12 (650)	7.00x12 (650)	7.00x12 (650)
2X / 2	2X / 2	2X / 2
1154	1154	1154
1169	1169	1169
6 / 8	6 / 8	6 / 8
2420	2420	2420
150	160	160
3300	3300	3300
4205	4345	4345
2340	2340	2340
1320	1320	1320
675	675	675
4170	4190	4190
2970	2990	2990
1450	1450	1450
50 / 150 / 1200	60 / 150 / 1200	60 / 150 / 1200
3A	4A	4A
1190	1190	1190
150	150	150
150	150	150
4273	4291	4291
4086	4104	4104
4412	4439	4439
2434	2434	2434
49	49	49
18 / 20	18 / 20	18 / 20
0.35 / 0.53	0.35 / 0.53	0.32 / 0.53
0.52 / 0.51	0.52 / 0.51	0.51 / 0.51
17600 / 18100	17500 / 17700	17600 / 18000
21500 / 22600	21500 / 22600	21500 / 22600
14 / 22	13.5 / 21.5	13 / 21
16.6 / 28.7	16.5 / 28.2	16.4 / 27.3
4.6 / 4.1	4.7 / 4.1	4.8 / 4.1
hydraulic	hydraulic	hydraulic
2x16	2x16	2x16
34	34	34
DIN 43 536/A	DIN 43 536/A	DIN 43 536/A
80 / 930	80 / 930	80 / 930
2178	2178	2178
11.2 ¹⁾	7.8 ²⁾	8.2 ²⁾
AC electronic	AC electronic	AC electronic
210	210	210
45	45	45
65	65	65
15 170	15 170	15 170

SIDE VIEW



TOP VIEW



SPECIFICATIONS

- Standard
- Option

ALL MODELS

GENERAL

4-wheel chassis, 80 volts, front wheel dual drive	•
Key pre-set economy or high performance mode (ECO / PRO)	•
3-valve hydraulic fingertip control mounted on an ergonomic armrest	•
Variable hydraulic speed control functions	•
Battery compartment side door	•
Multifunctional interactive full colour display	•
Intelligent curve control	•
Tilttable steering column	•
TruckTool setup and diagnostics	•
Interlock System (Seat Switch Timeout = all functions are disabled, the truck will go into the stop mode, automatically applied parking brake)	•
Full-suspension vinyl Grammer MSG65 seat	•
CE name plates -language markings	•
Operations and Maintenance Manual	•
DIN battery connectors on frame	•
Back-up drive horn button	•
Battery door detection sensor	•
Fingertip control armrest	•
Manual control levers	•
Dual Joystick	•
Mini steering wheel	•
Air conditioner	•
Heater	•

POWER SOURCE

Lead acid battery	•
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FRAME

Battery sideway exchange chassis	•
Battery roller bed	•
Battery tray	•
Battery sideway exchange tool	•
Battery inspection hatch	•
Easy charging	•
T-bar battery stand	•

LIGHTING

LED work lights	•
Red side lines	•
Amber strobe	•
Amber strobe mounted low	•
"Blue point" rear light	•
"Blue point" rear light mounted low	•

ELECTRICAL SYSTEM

Smart backup alarm	•
Current output	•
12V connector	•
Operator presence pedal	•
Electronic differential lock	•
Dual pedal layout	•
Drive direction selection switch on ergonomic armrest (Forward-Backward) *Only on FC controls	•
Drive direction lever in steering column (Forward-Neutral-Reverse)	•
Road light kit	•
PIN code access with start switch	•
Automated lift controls	•
Automatic tilt centering via the F2 button with FC TILT/C	•
Load weight indicator	•

ALL MODELS

OPERATOR'S CABIN

Grammer MSG65 seat	•
Grammer MSG65 with heater	•
Grammer MSG65 with cloth upholstery	•
Grammer MSG65 with cloth upholstery and heater	•
Grammer MSG75	•
Grammer MSG75 with heater	•
Grammer MSG75 with cloth upholstery	•
Grammer MSG75 with cloth upholstery and heater	•
Backrest extension	•

ACCESSORIES

Rear view mirror	•
External rear view mirror	•
Dead angle mirror	•
Wide view mirror	•
A4 size paper holder	•
Camera	•
Accessory clamp	•
Fire extinguisher	•

CABIN

Default OHG	•
Low OHG	•
Battery Inspection OHG	•
Front screen and roof with wiper / washer	•
Low front screen and roof with wiper / washer	•
Front screen and roof with wiper / washer with battery inspection	•
Safety doors	•
Delux cabin	•

EXTERIOR

Special colour (RAL) for the frame and counterweight	•
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FORKS & CARRIAGE

Various fork lengths (1000 - 2400mm) as well as fork deletion	•
Side shifter W1190mm	•
Integrated side shifter W1190mm	•
Fork positioner+ integrated side shifter	•
Load backrest	•

HYDRAULIC SYSTEM

3/4/5-way valve armrest-mounted fingertip control	•
3/4-way valve manual control	•
Lift Control	•
Double action FC 3 v, for clamp usage	•
Double action FC 4 v, for clamp usage	•
Double action MC 3 v, for clamp usage	•
Double action MC 4 v, for clamp usage	•
Hydraulic accumulator	•
Food grade hydraulic oil	•
Biodegradable hydraulic oil	•
Cold area hydraulic oil VG15	•
Hot area hydraulic oil VG46	•

TYRES

Solid Pneumatic Tyres	•
Pneumatic Tyres	•
Non-marking Solid Tyres	•
Cushion tyres	•
Solid Pneumatic Twin Tyres	•

FHB-E1 models

4.0 - 5.5 TONS



• OPERATOR COMFORT

• EFFORTLESS CONTROL

• IMPROVED ON/OFF ACCESS

• OUTSTANDING PERIPHERAL VISION

• INCREASED DRIVE SENSITIVE & AGILITY

• CLEAR & INFORMATIVE DISPLAY

• EASY/SWIFT BATTERY EXCHANGE

• BOOST FEATURES

• LIGHTING PACKAGE OPTIONS



TCM

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Note:

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Features and specifications may vary depending on markets.
Performance data and dimensions are nominal and subject to tolerances.
Produced in ISO certified factory.

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