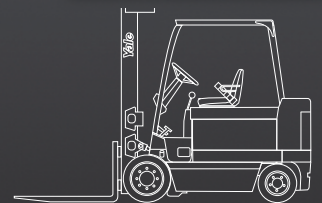


# HG Series

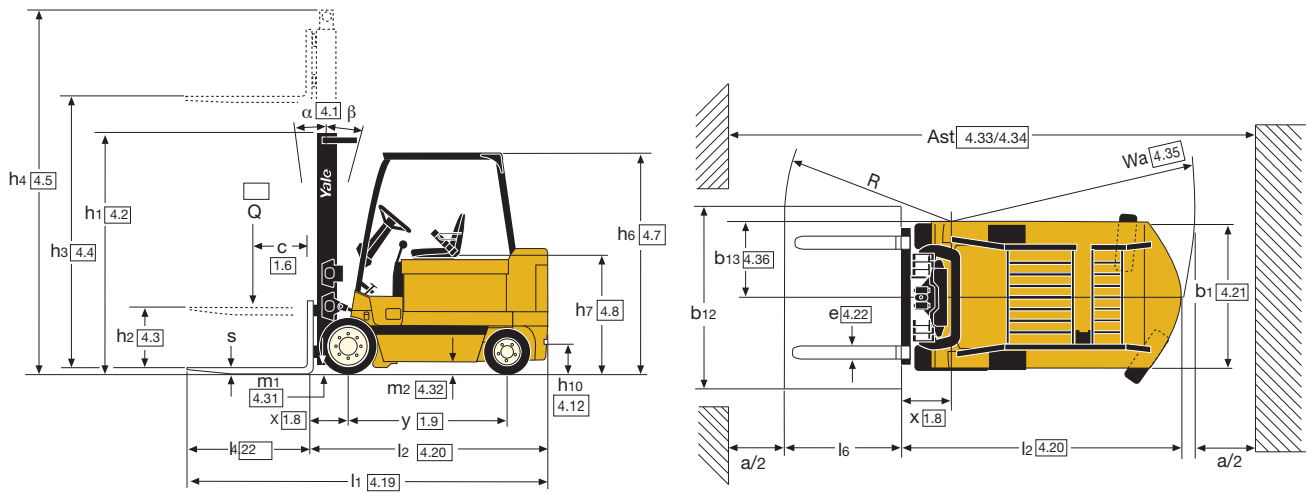
## Electric Forklift Trucks with AC Technology

3,500kg, 4,000kg, 4,500kg and 5,500kg



- Heavy duty forklift truck with AC motor technology
- Available with Cushion tyres
- Optimum operator comfort
- CANbus technology

## Truck Dimensions



## ERC 35HG, 40HG mast details and capacity ratings (kg) - Cushion tyres

Model		ERC 35 HG									ERC 40 HG							
Tyres		22 x 9 x 26									22 x 9 x 16							
Width across tyres		1270mm Tread									1270mm Tread							
Mast	OAH h1	FFH h2+s	MFH h3+s	h4	Tilt		Forks			Integral Sideshift			Forks			Integral Sideshift		
					F	B	500 LC	600 LC	700 LC	500 LC	600 LC	700 LC	500 LC	600 LC	700 LC	500 LC	600 LC	700 LC
2 stage LFL (V)	2134	150	3100	3827 <sup>(1)</sup>	5	5	3500	3200	2970	3470	3150	2880	4000	3600	3380	3950	3580	3280
	2434	150	3700	4427 <sup>(1)</sup>	5	5	3500	3200	2950	3450	3130	2870	4000	3600	3370	3940	3570	3270
	2734	150	4300	5027 <sup>(1)</sup>	5	5	3500	3200	2940	3440	3120	2850	4000	3600	3350	3920	3560	3250
	3184	150	5000	5727 <sup>(1)</sup>	5	5	3380	3090	2830	3300	3000	2740	3880	3490	3230	3780	3430	3140
	3584	150	5600	6327 <sup>(1)</sup>	5	5	3270	2970	2720	3170	2880	2630	3760	3390	3120	3650	3310	3030
2 stage FFL (F)	2134	1244 <sup>(2)</sup>	3100	3876 <sup>(3)</sup>	5	5	3500	3200	2980	3470	3150	2890	4000	3600	3400	3950	3590	3290
	2434	1544 <sup>(2)</sup>	3700	4776 <sup>(3)</sup>	5	5	3500	3200	2970	3450	3140	2880	4000	3600	3380	3930	3580	3280
3 stage FFL (E)	2134	1359 <sup>(4)</sup>	4415	5190 <sup>(5)</sup>	5	5	3490	3190	2950	3390	3080	2830	3990	3590	3360	3860	3520	3230
	2234	1459 <sup>(4)</sup>	4715	5490 <sup>(5)</sup>	5	5	3440	3150	2900	3330	3040	2790	3940	3540	3310	3810	3470	3180
	2334	1559 <sup>(4)</sup>	4950	5725 <sup>(5)</sup>	5	5	3400	3110	2860	3290	2990	2750	3900	3510	3270	3760	3420	3140
	2434	1659 <sup>(4)</sup>	5250	6025 <sup>(5)</sup>	5	5	3350	3060	2810	3230	2940	2700	3840	3460	3220	3700	3370	3090
	2534	1759 <sup>(4)</sup>	5550	6325 <sup>(5)</sup>	5	5	3290	3010	2760	3170	2890	2650	3790	3410	3160	3630	3310	3040
2734	959 <sup>(4)</sup>	6000	6775 <sup>(5)</sup>	5	5	3210	2920	2670	3070	2790	2560	3690	3320	3070	3530	3210	2950	

## ERC 45HG, 55HG mast details and capacity ratings (kg) - Cushion tyres

Model		ERC 45 HG											ERC 55 HG								
Tyres		22 x 12 x 16											22 x 12 x 16								
Width across tyres		1320mm Standard Tread / 1420mm Wide Tread											1320mm Standard Tread / 1420mm Wide Tread								
Mast	OAH h1	FFH 4.5t h2+s	FFH 5.5t h2+s	MFH 4.5t h3+s	MFH 5.5t h3+s	4.5t h4	5.5t h4	Tilt		Forks			Integral Sideshift			Forks			Integral Sideshift		
								F	B	500 LC	600 LC	700 LC	500 LC	600 LC	700 LC	500 LC	600 LC	700 LC	500 LC	600 LC	700 LC
2 stage LFL (V)	2134	150	160	2840	2850	3701 <sup>(11)</sup>	3701 <sup>(8)</sup>	5	5	4500	4500	3950	4500	4380	3950	5500	5500	5070	5500	5330	4890
	2434	150	160	3440	3450	4301 <sup>(11)</sup>	4301 <sup>(8)</sup>	5	5	4500	4500	3950	4500	4370	3950	5500	5500	5060	5500	5320	4870
	2734	150	160	4040	4050	4901 <sup>(11)</sup>	4901 <sup>(8)</sup>	5	5	4500	4500	3950	4500	4350	3950	5500	5500	5050	5500	5300	4860
	3184	150	160	4740	4750	5601 <sup>(11)</sup>	5601 <sup>(8)</sup>	5	5	4500	4500	3950	4500	4330	3950	5500	5500	5020	5500	5280	4840
	3584	150	160	5340	5350	6201 <sup>(11)</sup>	6201 <sup>(8)</sup>	5	5	4390	4380	3950	4390	4200	3850	5380	5360	4900	5380	5150	4720
2 stage FFL (F)	2134	1193 <sup>(14)</sup>	1234 <sup>(8)</sup>	2840	2850	3781 <sup>(12)</sup>	3750 <sup>(7)</sup>	5	5	4500	4500	3950	4500	4340	3950	5500	5500	5090	5500	5330	4900
	2434	1493 <sup>(14)</sup>	1534 <sup>(8)</sup>	3440	3450	4281 <sup>(12)</sup>	4350 <sup>(7)</sup>	5	5	4500	4500	3950	4500	4320	3950	5500	5500	5070	5500	5320	4880
3 stage FFL (E)	2134	1218 <sup>(15)</sup>	1229 <sup>(10)</sup>	4137	4147	5053 <sup>(13)</sup>	5052 <sup>(9)</sup>	5	5	4500*	4500*	3950*	4500*	4350*	3950*	5500*	5500*	5060*	5490*	5230*	4810*
	2334	1418 <sup>(15)</sup>	1429 <sup>(10)</sup>	4690	4700	5606 <sup>(13)</sup>	5605 <sup>(9)</sup>	5	5	4500*	4500*	3950*	4500*	4340*	3950*	5500*	5500*	5050*	5490*	5220*	4800*
	2434	1518 <sup>(15)</sup>	1529 <sup>(10)</sup>	4990	5000	5906 <sup>(13)</sup>	5905 <sup>(9)</sup>	5	5	4440*	4440*	3950*	4440*	4280*	3930*	5440*	5440*	4990*	5440*	5160*	4740*
	2534	1618 <sup>(15)</sup>	1629 <sup>(10)</sup>	5290	5300	6206 <sup>(13)</sup>	6205 <sup>(9)</sup>	5	5	4390*	4390*	3950*	4390*	4420*	3880*	5380*	5380*	4930*	5380*	5100*	4690*
2734	1818 <sup>(15)</sup>	1829 <sup>(10)</sup>	5740	5750	6656 <sup>(13)</sup>	6655 <sup>(9)</sup>	5	5	4300*	4300*	3950*	4300*	4120*	3790*	5290*	5270*	4830*	5290*	4990*	4590*	

\* Wide tread required. Standard tread not possible

(1) Add 501mm with load backrest extension. (2) Deduct 452mm with load backrest extension. (3) Add 452mm with load backrest extension.

(4) Deduct 453mm with load backrest extension. (5) Add 453mm with load backrest extension. (6) Add 375mm with load backrest extension. (7) Add 326mm with load backrest extension.

(8) Deduct 326mm with load backrest extension. (9) Add 321mm with load backrest extension. (10) Deduct 321mm with load backrest extension. (11) Add 367mm with load backrest extension.

(12) Add 287mm with load backrest extension. (13) Add 312mm with load backrest extension. (14) Deduct 287mm with load backrest extension. (15) Deduct 312mm with load backrest extension.

# VDI 2198 - General Specifications

Characteristics	1.1	Manufacturer		Yale	Yale	Yale	Yale												
	1.2	Model designation		<b>ERC 35 HG</b>	<b>ERC 40 HG</b>	<b>ERC 45 HG</b>	<b>ERC 55 HG</b>												
	1.3	Power: Electric		Battery	Battery	Battery	Battery												
	1.4	Operation		Rider Seated	Rider Seated	Rider Seated	Rider Seated												
	1.5	Load capacity	Q (t)	3500	4000	4500	5500												
	1.6	Load centre	c (mm)	500	500	500	600												
	1.8	Load distance	x (mm)	447	447	452	462												
	1.9	Wheelbase	y (mm)	1575	1575	1740	1740												
	Weights	2.1	Unladen weight (max. battery)	kg	6695	7155	8110	9125											
2.2		Axle loading with load, front/rear (max. battery)	kg	8525	1125	9245	1365	10230	1780	12320	1695								
2.3		Axle loading without load, front/rear (max. battery)	kg	3120	3575	3040	4115	3495	4610	3700	5425								
Wheels and Tyres	3.1	Tyres: P = Pneumatic, C = Cushion, SC = Supercushion		C	C	C	C												
	3.2	Tyre size, front		22 x 9 x 16	22 x 9 x 16	22 x 12 x 16	22 x 12 x 16												
	3.3	Tyre size, rear		18 x 6 x 12.125	18 x 6 x 12.125	18 x 7 x 12.125	18 x 7 x 12.125												
	3.5	Number of wheels, front/rear (X = driven)		2X	2	2X	2	2X	2	2X	2								
	3.6	Track width, front, standard/wide tread	b10 (mm)	1041.4	1041.4	1015.2	1115.3	1015.2	1115.3										
	3.7	Track width, rear	b11 (mm)	1005	1005	1005	1005												
	Dimensions	4.1	Mast tilt, forward $\alpha$ / back $\beta$	degrees	5	5	5	5	5	5	5	5							
4.2		Height of mast, lowered	h1 (mm)	2134	2134	2134	2134												
4.3		Free lift ▲	h2 (mm)	100	100	100	100												
4.4		Lift height ▲	h3 (mm)	3050	3050	2790	2790												
4.5		Height of mast, extended +	h4 (mm)	3827	3827	3701	3701												
4.7		Height to top of overhead guard ○	h6 (mm)	2390	2390	2390	2390												
4.8		Seat height ✕	h7 (mm)	1213	1213	1213	1213												
4.12		Towing coupling height	h10 (mm)	329	329	331	331												
4.19		Overall length	l1 (mm)	3378	3428	3599	3599												
4.20		Length to face of forks	l2 (mm)	2378	2428	2599	2599												
4.21		Overall width, standard/wide tread	b1/b2 (mm)	1270	1270	1320	1420	1320	1420										
4.22		Fork dimensions	s/e/l (mm)	50	125	1000	50	125	1000	50	125	1000	60	150	1200				
4.23		Fork carriage DIN 15173. Class, A/B ▼		IIIA	IIIA	IIIA	IIIA												
4.24		Fork carriage width ▶	b3 (mm)	1067	1067	1067	1067												
4.31		Ground clearance beneath mast, with load	m1 (mm)	114	114	118	118												
4.32		Ground clearance at centre of wheelbase	m2 (mm)	128	128	130	130												
4.33		Aisle width with pallets 1000 x 1200 wide	Ast (mm)	3746	3785	3966	3966												
4.34		Aisle width with pallets 800 x 1200 long	Ast (mm)	3946	3985	4166	4166												
4.35		Outer turning radius	Wa (mm)	2099	2138	2314	2314												
4.36		Inner turning radius, standard/wide tread	b13 (mm)	671	671	741	741	741	741										
Performance	5.1	Travel speed laden/unladen	km/h	16.6	16.7	15.9	16.7	15.1	16.7	14.5	16.7								
	5.2	Lifting speed laden/unladen	m/s	0.39	0.6	0.37	0.6	0.29	0.45	0.27	0.45								
	5.3	Lowering speed laden/unladen	m/s	0.53	0.48	0.53	0.48	0.45	0.37	0.45	0.37								
	5.5	Drawbar pull laden/unladen, 60 minute rating	N	6904	7817	6720	7722	6308	7487	5967	7324								
	5.6	Maximum drawbar pull lade/unladen load, 5 minute rating	N	11631	12698	11447	12603	11035	12369	10694	12206								
	5.7	Gradeability laden/unladen, 30 minute rating	%	9	15	8	14	6	11	5	10								
	5.8	Maximum gradeability laden/unladen, 5 minute rating	%	12	19	11	18	9	15	7	13								
	5.9	Acceleration time laden/unladen	s	4.9	4.6	5.0	4.7	5.2	4.8	5.4	4.9								
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic												
	Motors	6.1	Drive motor output (S2 60 minute rating)	kW	21.5	21.5	21.5	21.5											
6.2		Lifting motor (S3 15% rating)	kW	23.6	23.6	23.6	23.6												
6.3		Battery DIN 43531/35/36 A, B, C, no		no	no	no	no												
6.4		Battery voltage/capacity at 5hr rate	V/Ah	48	1200	80	675	48	1200	80	675	48	1350	80	750	48	1350	80	750
6.5		Battery weight (min/max)	kg	1632	2177	1632	2177	1919	2517	1919	2517								
Other	6.6	Power consumption in accordance with VDI cycle	kWh/h																
	8.1	Drive control		AC Electronic	AC Electronic	AC Electronic	AC Electronic												
	8.2	Working pressure for attachments	bar	155	155	155	155												
	8.3	Oil flow for attachments †	l/min	43.5	43.5	43.5	43.5												
	8.4	Average noise level at operator's ear ★	dB(A)	78	78	78	78												
	8.5	Towing coupling type		Pin	Pin	Pin	Pin												

★ L (eq) at Driver's ear to BITA GN20

✕ Standard add 28 mm for FLS1500 full-suspension seat

▶ Add 30 mm with load backrest

▲ Top of forks

+ Without load backrest

○ h 6 subject to +/- 5 mm tolerance

† Variable

**Spec sheet truck based on:**

3100mm 2 stage LFL mast (ERC35-40HG) with standard carriage and 1000 mm forks.  
2850mm 2 stage LFL mast (ERC45HG) with Class 3 attachment carriage with 1000 mm forks.

2850mm 2 stage LFL mast (ERC55HG) with standard Class 4 carriage with 1200 mm forks.  
All with load backrest.



## HG Series

Models: ERC HG35, HG40, HG45, HG55

### Yale ERC-HG Series

This series of trucks is available in four capacity ranges to meet and exceed your material handling application requirements. The Yale ERC-HG electric truck delivers maximum performance for demanding applications that require clean, quiet-running, heavy-duty capability. These trucks are extremely manoeuvrable and offer plenty of power and high stacking ability, while also offering excellent ergonomics, reliability and maintenance ease.

### Yale AC Technology

Offers smooth acceleration with seamless direction change and regenerative braking. The controller converts battery power to three-phase AC power, and adjusts frequency and currents to meet performance demands. Performance control settings and extensive diagnostics are accessible by technicians through the dash display or a PC. A Master Controller, utilising Controller Area Network (CANbus) technology, monitors and controls key truck components and systems. The sophisticated Thermal Management System monitors component temperature and gradually adjusts performance to prevent damage to key components.

### Controller Area Network (CANbus)

CANbus technology streamlines communications between truck systems through one main master controller.

Dash display, traction controller and pump controller are all regulated via the CANbus network. A connection point is provided for interface with a service PC.

### Electrical System

The ERC-HG utilises AC Motor technology designed for exceptional performance. It uses a brushless induction motor for high starting torque and smooth rapid acceleration. A speed sensor built into the motor provides feedback to the control system, allowing motor speed and direction to be continuously monitored. The standard Auto Deceleration System automatically slows the truck when the operator's foot is removed from the pedal, thereby extending brake life.

### Brake System

Hydraulic brakes are self-adjusting and self-energising for reduced pedal effort. The master cylinder is sealed to prevent contamination. A hand-operated park brake is manually adjustable and has an audible warning if the operator leaves the truck without applying the brake.

### Voltage

48 and 80 volt systems in different battery compartment sizes to meet a variety of application requirements.

A solid-state, return-to-neutral feature avoids the possibility of inadvertent truck movement at start-up. The truck will not start forward or reverse until the direction selector lever has been moved through neutral.

### Dash Display

The dash display includes an hour meter, 40-character LCD display for status codes and descriptions, Battery Discharge Indicator (BDI) with lift interrupt, warning lights for brake fluid, seat belt indicator, and parking brake indicator. The display also permits access for service technicians to adjust performance control settings, allowing the truck to be customised to meet customer applications. Additionally, extensive diagnostics allow service technicians to quickly troubleshoot problems, and includes operator selectable performance modes, operator passwords and a pre-shift operator checklist.

### Hydraulic Components

The hydraulic system utilises an AC transistor Controller and a brushless AC induction motor.

A flexible coupling joins the motor to the pump for long drive life and low noise.

The motor and pump are mounted on rubber isolators for reduced noise and vibration. A combination of flexible wirebraid hoses and steel tubing is used to simplify the hydraulic plumbing.

A dipstick allows easy checking of hydraulic oil without the use of tools. A 10-Micron full flow hydraulic filter located in the return line protects the hydraulic system from contaminants and helps provide long life. A by-pass relief valve permits oil flow in the event of the filter clogging.

### On-Demand Power Steering

On-demand power steering is standard and the all-hydraulic design gives precise, reliable control while eliminating mechanical linkages and road shocks at the steering wheel. A five-position tilt steering column provides excellent operator comfort and visibility. A brushless motor operates at a very low speed when not in use, conserving energy and reducing noise levels.

### Steering Axle

The steering axle is a one-piece ductile iron casting mounted on elastic cushions that reduce shock and provide a softer ride.

### Masts

A full range of Yale Hi-Vis™ 2 stage LFL and 2 and 3 stage FFL masts are available.

Yale Hi-Vis™ masts are designed for maximum visibility, with widely spaced channels, lift chains and main lift cylinders. A load backrest extension is available as optional equipment.

### Frame

The frame is a unitised construction, stress tested for durability. An integral step on both sides of the truck is provided for easy entry and exit. The truck has a two piece floor plate that can be easily lifted out for service access without removing any hardware. An easily removable counterweight cover gives easy access to electrical componentry.

Additional standard features include an overhead guard, 1000mm forks (1200mm on the ERC55HG), a contoured semi-suspension seat with fore and aft adjustment, seat belt and an operator sensing switch. A five position tilting steer column, rubber floor mat, electric horn, ignition lock and servicehour meters are also standard.

### Options

- Foot directional control
- Lighting kits
- Reverse alarm
- Integral Sideshift



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Country of Registration: England. Company Registration Number: 02636775



**Safety.** This truck conforms to the current EU requirements. Specification is subject to change without notice.

Publication part no. 258985846 Rev.05

Printed in The United Kingdom (0412HG) EN

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Truck shown with optional equipment