DB/EB Series

Diesel Powered Fork Lift Trucks

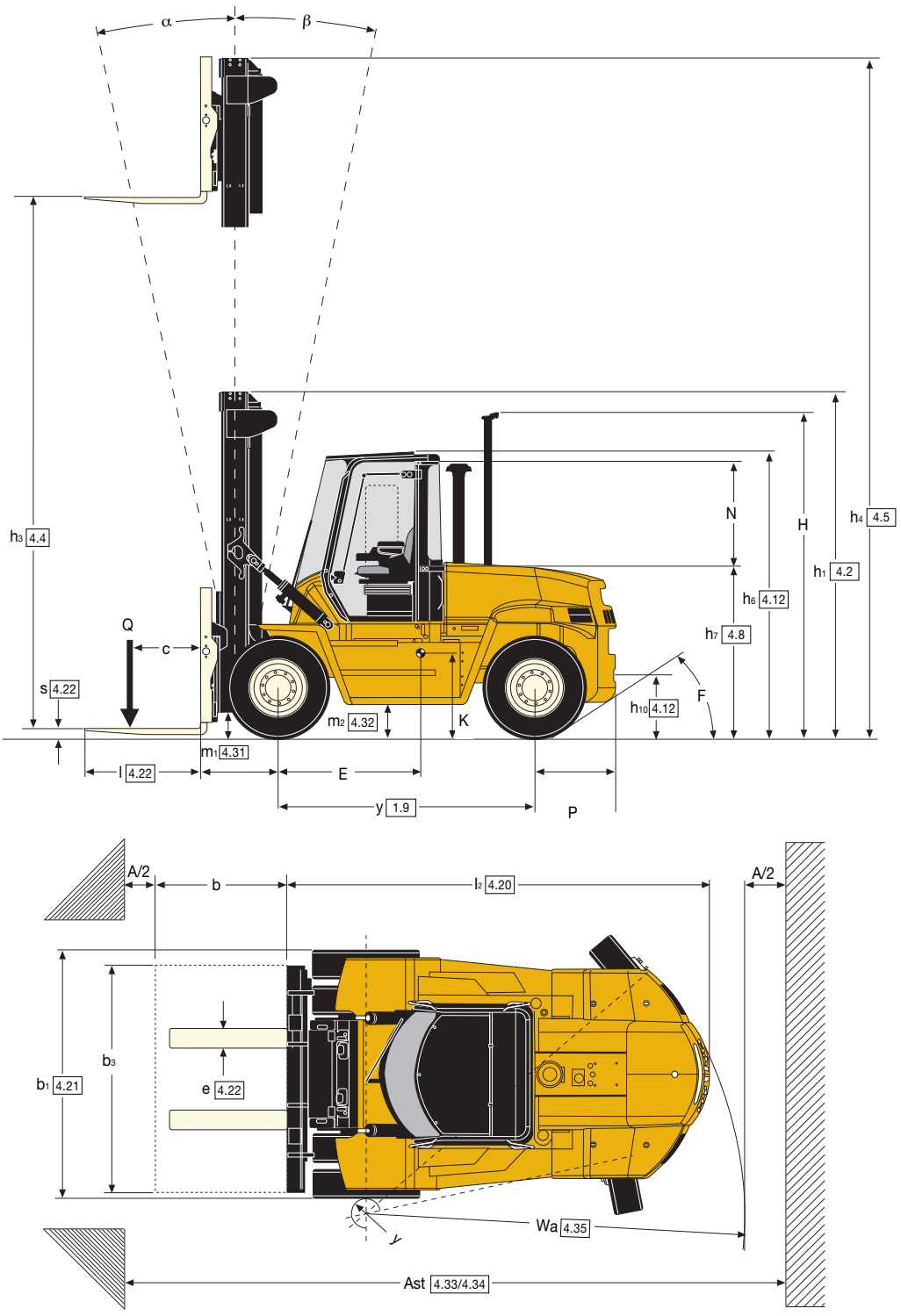
8,000kg, 9,000kg, 10,000kg, 12,000kg, 13,000kg, 14,000kg and 16,000kg

- Heavy duty trucks for demanding applications
- Hydraulically actuated, load sense steering system for low steering effort
- Ergonomically designed cab for maximum operator productivity
- Large glazed cab sections, OHG design and compartment design afford excellent visibility
- Electrically powered tilting cab and lifting engine hoods provide easy service access.

Yale®

People. Products. Productivity.

Truck Dimensions



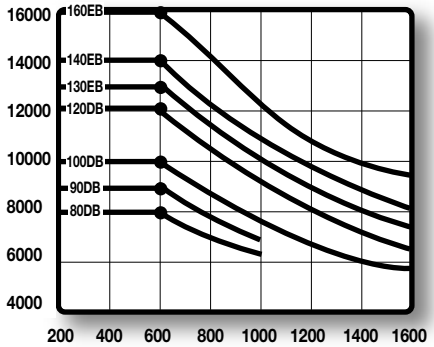
Rated capacities

Load Centre

Distance from forks to centre of gravity of load.

Rated Load

Based on vertical masts as shown in VDI table.



◔ = Centre of gravity of unladen truck
Ast = Wa + x + l_6 + a (see line 4.33)
a = Minimum operating distance
l_6 = Load length
(VDI-standard = 200 mm BITA recommendation = 300 mm)

Mast details and capacity ratings (kg) - Pneumatic tyres

Model					GDP 80 DB		GDP 90 DB	
Tyres					9.00 - 20 12PR		9.00 - 20 12PR	
Width across tyres					2490mm		2490mm	
					Forks	Integral Sideshift	Forks	Integral Sideshift
Mast	OAH	FFH	MFH		600	600	600	600
	h1	h2+s	h3+s	h4	LC	LC	LC	LC
2-Stage LFL (V)	3330*	-	3750	5170*	8600	8000	9500	9000
	3780*	-	4650	6070*	8600	8000	9500	9000
	4155*	-	5400	6820*	8600	8000	9500	9000
3-Stage FFL (F)	3020*	1400	5600	7010*	7300	7080	8200	7980
	3155*	1540	6000	7410*	7160	6940	8060	7820
	3320*	1700	6500	7910*	6980	6760	7860	7640
	3490*	1865	7000	8410*	6780	6580	7640	7420

Mast details and capacity ratings (kg) - Pneumatic tyres

Model					GDP 100 DB		GDP 120 DB	
Tyres					10.00 - 20 14PR		10.00 - 20 14PR	
Width across tyres					2490mm		2490mm	
					Forks	Integral Sideshift	Forks	Integral Sideshift
Mast	OAH	FFH	MFH		600	600	600	600
	h1	h2+s	h3+s	h4	LC	LC	LC	LC
2-Stage LFL (V)	3630	-	3750	5470	10450	10000	12700	12000
	4080	-	4650	6370	10450	10000	12700	12000
	4455	-	5400	7120	10450	10000	12700	12000
	4855	-	6200	7920	10450	10000	12700	12000
	5105	-	6700	8420	10300	9700	12400	11700
3-Stage FFL (F)	3045	1435	5600	7030	10060	9440	11420	10720
	3180	1570	6000	7430	9900	9280	11240	10560
	3345	1735	6500	7930	9680	9080	11020	10360
	3510	1900	7000	8430	9640	8860	10780	10140

Mast details and capacity ratings (kg) - Pneumatic tyres

Model					GDP 130 EB		GDP 140 EB		GDP 160 EB	
Tyres					11.00 - 20 14PR		12.00 - 20 16PR		12.00 - 20 16PR	
Width across tyres					2617mm		2617mm		2617mm	
					Forks	Integral Sideshift	Forks	Integral Sideshift	Forks	Integral Sideshift
Mast	OAH	FFH	MFH		600	600	600	600	600	600
	h1	h2+s	h3+s	h4	LC	LC	LC	LC	LC	LC
2-Stage LFL (V)	3640	-	3750**	5470**	13600	13000	15000	14000	16400	16000
	4090	-	4650**	6370**	13600	13000	15000	14000	16400	16000
	4465	-	5400**	7120**	13600	13000	15000	14000	16400	16000
	4865	-	6200**	7920**	13600	13000	15000	14000	16400	16000
	5115	-	6700**	8420**	13450	12700	14800	13800	16200	15800
3-Stage FFL (F)	3070	1300	4400	6080	12800	11940	13720	12820	15600	14620
	3270	1500	5000	6680	12740	11880	13660	12760	15540	14560
	3600	1830	6000	7680	12340	11520	13260	12380	15120	14160
	3940	2160	7000	8680	11760	10980	12680	11840	14520	13600

*Add 20mm if optional 10.00 x 20 tyres are fitted. **Deduct 20mm for GDP130EB with 11.00 x 20 tyres.

Load Moment

Model		GDP 80 DB	GDP 90 DB	GDP 100 DB	GDP 120 DB	GDP 130 EB	GDP 140 EB	GDP 160 EB
Load moment cm-kg		1060000	1192500	1355000	1626000	1879800	2024400	2313600
Dimensions (mm)	E	1342	1405	1490	1531	1613	1648	1760
	F	35°	35°	37°	37°	41°	44°	37°
	H	3388	3388	3411	3411	3440	3463	3463
	K	1080	1050	1160	1120	1210	1200	1180
	N	1135	1135	1135	1135	1135	1135	1135
	P	848	848	848	848	848	848	968

VDI 2198 - General Specifications

Characteristics	1.1	Manufacturer		Yale	Yale
	1.2	Model designation		**GDP 80 DB**	**GDP 90 DB**
	1.3	Power: battery, diesel, LPG, electric mains		Diesel	Diesel
	1.4	Operation: stand on, rider seated		Rider-seated	Rider-seated
	1.5	Load capacity	Q (kg)	8000	9000
	1.6	Load centre	c (mm)	600	600
	1.8	Load distance	x (mm)	725	725
	1.9	Wheelbase	y (mm)	2700	2700
Weights	2.1	Unladen weight	kg	12378	12693
	2.2	Axle loadings laden, front/rear	kg	19077 / 1901	20531 / 1762
	2.3	Axle loadings laden front/rear	kg	6249 / 6129	6213 / 6480
Wheels and Tyres	3.1	Tyres: C=Cushion, SC=Supercushion, P=Pneumatic		P	P
	3.2	Tyre size, front		9.00-20 12PR	9.00-20 12PR
	3.3	Tyre size, rear		9.00-20 12PR	9.00-20 12PR
	3.5	Wheels, Number front/rear (X = driven)		4x / 2	4x / 2
	3.6	Track width, front	b10 (mm)	2190	2190
	3.7	Track width, rear	b11 (mm)	1930	1930
Dimensions	4.1	Mast tilt angle, forward α /back β	Degrees	15 / 12	15 / 12
	4.2	Height, mast lowered	h1 (mm)	4155	4155
	4.3	Free lift	h2 (mm)	-	-
	4.4	Lift height ▼	h3 (mm)	5336	5336
	4.5	Height of mast, raised; without LBR	h4 (mm)	6822	6822
	4.7	Height to top of overhead guard	h6 (mm)	3015	3015
	4.8	Seat height	h7 (mm)	1742	1742
	4.12	Towing coupling height	h10 (mm)	635	635
	4.19	Overall length	l1 (mm)	5494	5494
	4.20	Length to face of forks	l2 (mm)	4294	4294
	4.21	Overall width	b2 (mm)	2425 / 2463	2425 / 2463
	4.22	Fork dimensions	s/e/l (mm)	65 / 200 / 1220	65 / 200 / 1220
	4.23	Fork carriage type		75mm pin type	75mm pin type
	4.24	Fork carriage width	b3 (mm)	2350	2350
	4.25	Out to out dimension, fork positioner	b5 (mm)	520 - 2230	520 - 2230
	4.30	Sideshift from centre of truck	b8 (mm)	150	150
	4.31	Ground clearance beneath mast, laden	m1 (mm)	248	248
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	274	274
	4.33	Aisle width for pallets 1200 x 1200 wide ●	Ast (mm) per VDI	5821	5821
	4.35	Outer turning radius	Wa (mm)	3996	3996
	4.36	Inner turning radius	b13 (mm)	378	378
Performance	5.1	Travel speed laden/unladen	km/h	26.43 / 28.09	26.43 / 28.09
	5.2	Lifting speed laden/unladen	m/sec	0.46 / 0.74	0.46 / 0.74
	5.3	Lowering speed laden/unladen	m/sec	0.54 / 0.49	0.54 / 0.49
	5.5	Drawbar pull with/without load	N (at 1.6 km/h)	89300 / 36000	86300 / 36490
	5.6	Max. drawbar pull with/without load	N	104600 / 36000	104400 / 36490
	5.7	Gradeability with/without load ■	% (at 1.6 km/h)	51 / 32	47 / 31
	5.8	Max. gradeability with/without load ■	%	63 / 32	57 / 31
	5.9	Acceleration time laden/unladen	s (0 - 15 m)	5.9 / 4.7	6.0 / 4.8
	5.10	Service brake		pneumatic / hydraulic	pneumatic / hydraulic
Engine	7.1	Engine manufacturer/type		Cummins QSB6.7	Cummins QSB6.7
	7.2	Engine output, in accordance with ISO 14396	kW	116 / 155	116 / 155
	7.21	Engine torque	Nm / rpm	597 / 1500	597 / 1500
	7.3	Governed speed	rpm	2300	2300
	7.4	Number of cylinders/displacement	cm3	6 / 6700	6 / 6700
	7.5	Fuel consumption in accordance with VDI cycle	l/h	-	-
Other	8.1	Transmission		3-speed hydrodynamic	3-speed hydrodynamic
	8.2	Operating pressure for attachments	bar	193	193
	8.3	Oil flow for attachments	l/min	93.4	93.4
	8.4	Average noise level in Cab (EN12053) ✘	dB(A)	73	73
	8.4.1	Noise level LWA outside truck (2000/14/EC) ↕	dB(A)	108	108
	8.5	Trailer coupling type		Pin	Pin

▼ Bottom of forks

● Stacking aisle width(line 4.33) is based on the VDI standard calculation. BITA recommends an additional 100mm clearance.

■ Gradeability figures for comparison of tractive performance only, not to endorse operation on stated inclines - refer to operating manual.

✘ Noise level based on the weighting values contained in EN12053

↕ Truck > 10 tonne capacity equipped with EC noise package. Noise levels measured according to 2000/14/EC directive

Yale	Yale	Yale	Yale	Yale
GDP 100 DB	**GDP 120 DB**	**GDP 130 EB**	**GDP 140 EB**	**GDP 160 EB**
Diesel	Diesel	Diesel	Diesel	Diesel
Rider-seated	Rider-seated	Rider-seated	Rider-seated	Rider-seated
10000	12000	13000	14000	16000
600	600	600	600	600
760	760	862	862	862
2900	2900	3300	3300	3300
14603	15458	18026	18757	19812
22831 / 2373	25827 / 2333	29232 / 2181	30691 / 2428	33296 / 2698
7248 / 7355	7155 / 8303	9914 / 8112	9966 / 8791	9945 / 9867
P	P	P	P	P
10.00-20 14PR	10.00-20 14PR	11.00-20 14PR	12.00-20 16PR	12.00-20 16PR
10.00-20 14PR	10.00-20 14PR	11.00-20 14PR	12.00-20 16PR	12.00-20 16PR
4x / 2	4x / 2	4x / 2	4x / 2	4x / 2
2190	2190	2276	2276	2276
1930	1930	2000	2000	2000
15 / 12	15 / 12	15 / 12	15 / 12	15 / 12
4453	4453	5093	5116	5116
-	-	-	-	-
5336	5336	6610	6610	6610
7118	7118	8400	8420	8420
3033	3033	3043	3064	3064
1760	1760	1770	1791	1791
653	653	663	684	684
5694	5694	6530	6530	6530
4494	4494	5005	5005	5005
2446 / 2484	2446 / 2484	2589 / 2598	2607 / 2607	2607 / 2607
75 / 200 / 1220	75 / 200 / 1220	90 / 200 / 1525	90 / 200 / 1525	90 / 200 / 1525
75mm pin type	75mm pin type	85mm pin type	85mm pin type	85mm pin type
2350	2350	2500	2500	2500
520 - 2230	520 - 2230	520 - 2380	520 - 2380	520 - 2380
150	150	150	150	150
225	225	157	178	178
292	292	325	346	346
6127	6127	6607	6607	6607
4267	4267	4645	4645	4645
550	550	604	603	603
24.96 / 29.73	24.96 / 29.73	24.5 / 28.6	23.4 / 29.6	23.4 / 29.6
0.35 / 0.55	0.35 / 0.55	0.26 / 0.43	0.26 / 0.43	0.26 / 0.43
0.51 / 0.45	0.51 / 0.45	0.49 / 0.43	0.49 / 0.43	0.49 / 0.43
85800 / 41385	85200 / 44927	97700 / 51400	94300 / 52900	93900 / 53800
99800 / 41385	99200 / 44927	118600 / 51400	113400 / 52900	113000 / 53800
38 / 31	32 / 30	36 / 33	31 / 33	28 / 31
46 / 31	38 / 30	45 / 33	38 / 33	35 / 31
6.1 / 4.9	6.2 / 5.0	7.6 / 5.3	7.6 / 5.3	7.6 / 5.3
pneumatic / hydraulic	pneumatic / hydraulic	pneumatic / hydraulic	pneumatic / hydraulic	pneumatic / hydraulic
Cummins QSB6.7	Cummins QSB6.7	Cummins QSB6.7	Cummins QSB6.7	Cummins QSB6.7
116 / 155	116 / 155	116 / 155	116 / 155	116 / 155
597 / 1500	597 / 1500	597 / 1500	597 / 1500	597 / 1500
2300	2300	2300	2300	2300
6 / 6700	6 / 6700	6 / 6700	6 / 6700	6 / 6700
-	-	-	-	-
3-speed hydrodynamic	3-speed hydrodynamic	3-speed hydrodynamic	3-speed hydrodynamic	3-speed hydrodynamic
193	193	193	193	193
93.4	93.4	93.4	93.4	93.4
73	73	73	73	73
107	107	107	107	107
Pin	Pin	Pin	Pin	Pin

Trimmed short by 13mm for drill holes

DB/EB Series

Models: GDP80DB, 90DB, 100DB, 120DB, GDP130EB, 140EB, 160EB

Yale GP-DB Series

The DB/EB series offers superior traction, gradeability and drawbar pull on paved, gravel and unimproved surfaces. They all have high ground clearance, productive travel/lift speeds and excellent manouverability to meet the demands of tough applications (lumber, pipe, pre-stressed concrete, block/brick, stevedoring and heavy cargo). Special attachments may be required for the applications mentioned above.

ERGOcab

Yale's ERGOcab is ergonomically designed for maximum operator productivity.

Cab features:

- full-length handrails
- three step entry on special floorboards
- open floor with low front dash
- all gauges, switches, key start and park brake to right of driver
- two way adjustable steering column for height and tilt angle
- inch brake/brake/accelerator pedal arrangement
- custom moulded floor mat
- angled overhead guard bars
- 3-way adjustable right hand armrest
- wide angle side view mirrors
- blinking red warning lights on steer column
- side of operator Dash instrument panel with gauges, warning lights and LCD message centre
- paddle lever actuators for hydraulic functions and combination paddle/ rocker switches for optional attachments
- a full suspension vinyl seat
- horn

Enclosed cab option features:

- curved tempered front and rear glass
- twin arm single 990mm blade front wiper, rear wiper and top wiper with washer fluid spray
- ten high capacity outlet vents for heating
- optional air conditioning
- under cab sound insulation
- cab filter for all incoming air
- front and rear screen demisting
- top cover laminated glass
- storage bins

Cab Tilt

The entire operator cabin tilts for complete service access to major powertrain components.

Cummins QSB 6.7L

The QSB6.7 industrial turbo diesel with intercooler features advanced electronics, sculpted blocks, rear gear trains, and a High-Pressure Common-Rail fuel system.

Engine Specifications

Diesel Engine Specification	
Engine	Cummins QSB 6.7L
Cylinders	6
Displacement	6 litre
Power	155 hp @ 2500 rpm
Torque	597Nm @ 1500 rpm

Exhaust

The vertical exhaust is standard and has a large capacity cylindrical silencer.

Air Cleaner

An oversized two-stage air filter and internal back up filter with large site bowl pre-cleaner is standard. Optional Sy-Kone or exhaust-aspirated air cleaner with a high air intake for extremely dusty environments includes an oversized two-stage air filter and internal back up filter. Both standard and optional air cleaners have electronic air filter restriction indicators.

Cooling System

The Quad-Cooler radiator contains four separate cooling cores for the engine, transmission, hydraulics and charge air cooler. The radiator features high performance triangular waved, louvered fins at ten per square inch for reduced plugging from airborne contaminents. Radiator is easily accessible by lifting gas spring actuated louvered door on top of counterweight.

Drive Axle

The heavy-duty planetary drive axle with secure pinion retention is made of ductile iron and is bolted to the frame. The drive shafts are fully floating allowing the truck and load weight to be carried by the axle housings. A wet disc brake axle is optional.

Transmission

The three-speed automatic transmission has constant mesh gearing and a high ratio torque converter to multiply engine torque and cushion the drive train. Hydraulic multiple disc clutch packs ensure smooth direction, range selection and long life. The truck has individual pedals for inching and braking. The external control valve is easy to service. This fully electronic transmission has diagnostic and set-up capability with a lap-top computer. A neutral start switch is standard. An optional Foot Directional Control (FDC) provides direction change in lieu of column shifter.

Hydraulic System

The tandem hydraulic pumps operate at 3000 PSI. All hydraulic fittings include O-Ring Face Seal (ORFS). Small hydraulic lines and components allow for easy maintenance access. Electro mechanical solenoids allow precise control of oil flow during hoist and tilt functions and provide excellent load control.

Hydrostatic Steering

The hydrostatic system requires no mechanical drag link steering connections and components. Steering is actuated with a steer pump that controls a two-way cylinder bolted to the steer axle with eight bolts. The steer axle frame is made of high strength ductile cast steel. The adjustment free tie rods are made of T-1 steel. Tapered roller bearings are used with the heavy-duty spindles. Load sensing steering provides optimum performance at all engine speeds by giving priority to steering.

Chassis

A rugged unitised frame structure is designed for tough, demanding applications with a low step height for easy entry and exit. Side plates are 20mm thick. Mast is mounted to the frame, not the drive axle.

Masts

Yale Hi-Vis™ Simplex and Triplex masts afford operators outstanding visibility. Nested channel design incorporates full-face load rollers for durability. Rolled mast channels and formed cross-members provide high strength. Leaf-type chain provides superior strength.

Carriage

The standard carriage is a pin type, 2500mm wide. Fork spacing ranges 275mm inside to inside, 2220mm outside to outside with a 84mm diameter fork pin. The carriage is equipped with six angled load rollers.

Brakes

The brakes are "S-Cam" power-assisted air type. A separate air compressor air filter provides filtration for the brake system under all operating conditions. An optional extended life wet disc brake axle with dry disc park brake is available.

Electrical

24-volt system with single coloured wiring numbered for easy identification. Standard 12-volt accessory converter for optional electrical devices.

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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. 258985879 Rev.04
Printed in The United Kingdom (080910HG) EN

Truck shown with optional equipment