



GC-SVX

VERACITOR® CUSHION TIRE TRUCKS

3,000 · 3,500 · 4,000 lbs

Yale Veracitor® GC-SVX Series

This series of trucks is available in several configurations, designed to meet and exceed your material handling application requirements. The Veracitor® forklift can be configured for maximum performance and lowest cost of operation for medium to heavy duty applications with state-of-the-art features and superior power. The innovative Yale® Flex Performance Technology™ offers selectable performance modes that provide the flexibility to maximize fuel economy or productivity to match application needs.

Yale Veracitor® VX Industrial Engines feature a rigid cast iron block and main bearing caps. The nodular iron crankshaft is supported on five main bearings. The coil over plug ignition design eliminates spark plug wires. The engine also features hydraulic adjusters that eliminate the need for manual valve clearance adjustments. The PSI engine features twin engine balance shafts to reduce engine vibration, resulting in smoother and quieter performance. All engines feature hardened exhaust valve seats with stellite coated valves for superior durability.

Fuel System

The PSI 2.0L LPG engines are EPA emissions compliant and feature closed loop emissions regulation systems that continually monitor exhaust and adjust fuel/air mix as necessary. Yale Veracitor® VX engines use a mixer carburetor and a vaporizer/regulator to convert the fuel from a liquid to a gas. The engine features two performance mode settings to optimize fuel economy in applications with different productivity levels.

Transmission

There are two transmission selections available that will handle a wide variety of material handling applications, the One-Speed Electronic Powershift and the Techtronix 100. Both transmissions feature electronic inching (requires no overlap adjustment), electronic shift control, neutral start switch, and anti-restart protection. A single pedal controls both inching and braking. Optional dual inch/brake pedals are available for operators who prefer this design. A 10 micron filter protects the transmission from abrasive contaminants.

The Techtronix 100 features auto deceleration through the controlled application of clutch packs, and also reduces tire spin by precisely regulating engine speed during controlled power reversals.

Cooling System employs a 17" blade pusher-type fan. A permanently lubricated water pump and a high capacity, cross-flow radiator ensure rapid heat dissipation. The sealed cooling system operates at a pressure of 15 psi and includes a coolant recovery tank for visual inspection of coolant level. The transmission oil cooler is integrated into the radiator and is located in the side tank. All radiators are soft-mounted for excellent durability.

Drive Axle

The drive axles are designed to withstand heavy duty loads and absorb shock loads. The wheel hubs rotate on large tapered roller bearings. The drive shaft transmits torsion to the drive axle from the engine and transmission. Transmission torque occurs through an industrial hypoid ring gear and pinion differential assembly.

The drive axle is a self contained assembly that is isolated from the transmission by a heavy duty rubber

LPG Engine Specifications

Engine	PSI 2.0L
Cylinders	4
Camshaft	Overhead Valve
Displacement	122 cu.in./2.0 liter
Torque	100 lb.ft. @ 1300 RPM
Horsepower	44 hp
Air Filtration	Two Stage, Dry Type
Emission Control	Closed loop

isolator. The axle shafts utilize a "rolled fillet" root spline design for increased resistance to torsion stress. A magnetic sump plug is used to collect any metal particles that are circulating in the axle oil, preventing excessive component wear.

Brakes are hydraulic, duo-servo, self-energizing, and use automatic adjusting drum brake assemblies. Asbestos-free brake linings are bonded to steel shoes and act against cast iron drums. Single circuit master cylinder has a sealed fluid reservoir and features a fluid level sensor which activates an indicator light located on the instrument panel. The independent, hand adjustable parking brake with push-button release has an audible alarm.

Hydrostatic Power Steering provides responsive control and eliminates mechanical linkages for reduced surface shock and simplified maintenance. The steering wheel is 12 inches in diameter with a textured surface grip and spinner knob, and requires only four turns lock-to-lock. The center mounted steer cylinder is located within the confines of the steer axle for protection.

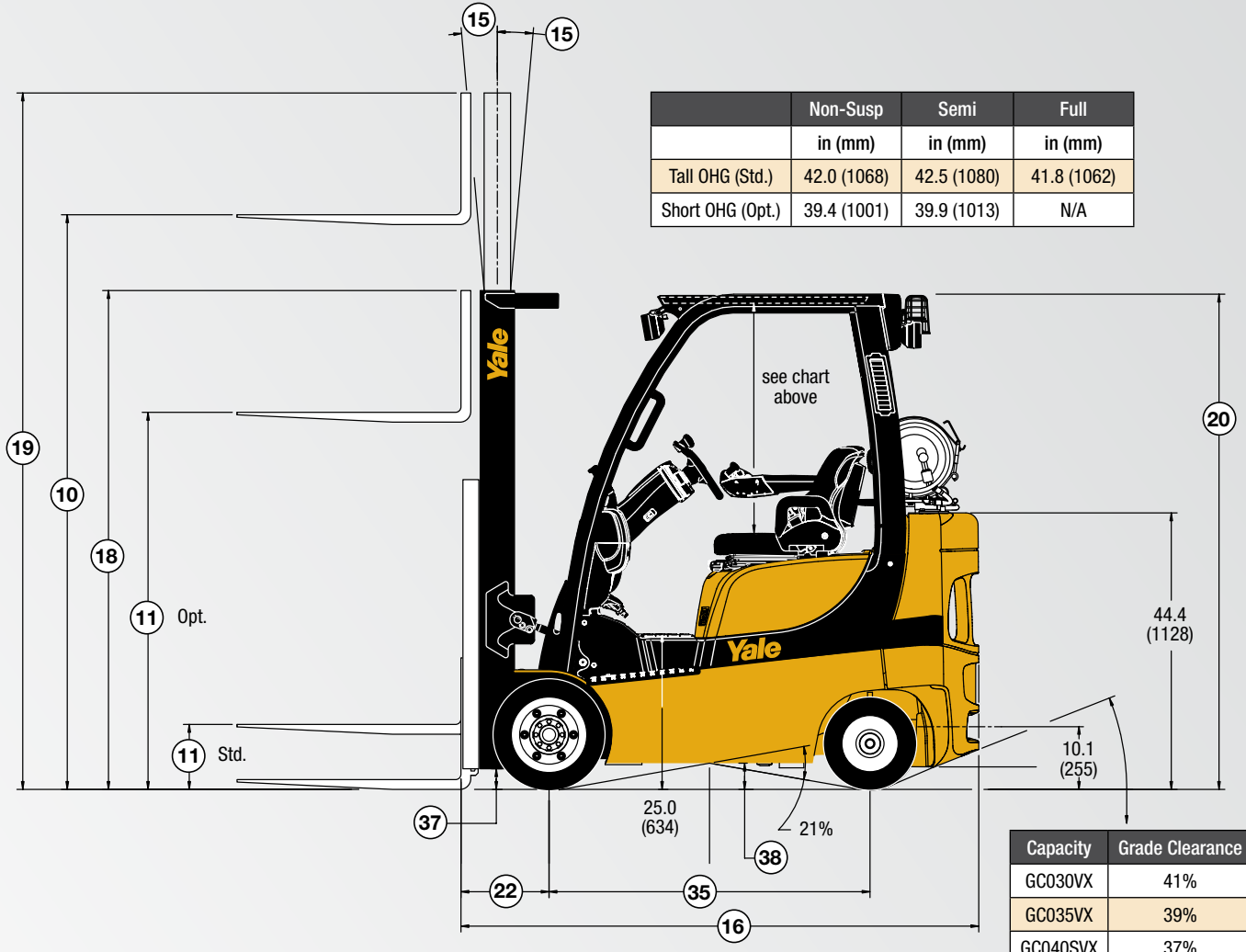
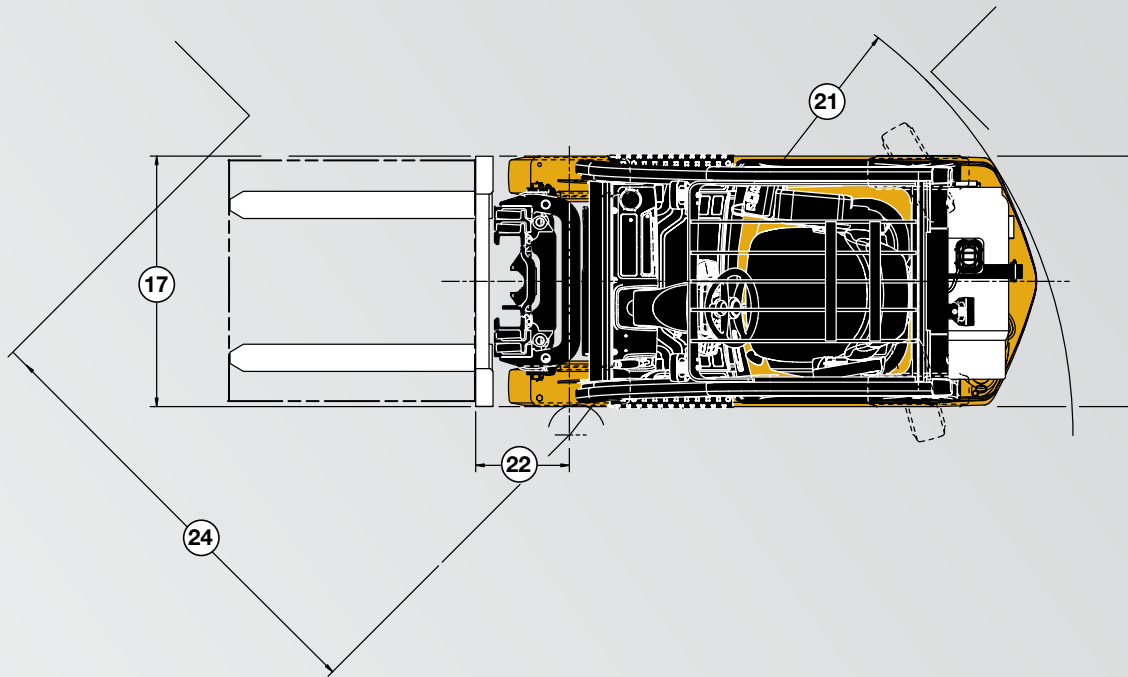
Steer Axle is constructed of cast steel and is rubber shock mounted to the frame for reduced wear and vibration. The Continuous Stability System (CSS™) system enhances lateral truck stability through reduced steer axle articulation, while simultaneously allowing uncompromised travel across various surfaces.

Chassis designed by Finite Element Analysis (FEA)

(continued on back)

Truck shown with optional equipment





	Non-Susp	Semi	Full
	in (mm)	in (mm)	in (mm)
Tall OHG (Std.)	42.0 (1068)	42.5 (1080)	41.8 (1062)
Short OHG (Opt.)	39.4 (1001)	39.9 (1013)	N/A

Capacity	Grade Clearance
GC030VX	41%
GC035VX	39%
GC040SVX	37%

see chart above

GENERAL	1	Manufacturer Name		Yale			
	2	Model		GC030VX	GC035VX	GC040SVX	
		Engine		PSI 2.0L			
	3	Rated Capacity	lb (kg)	3000 (1360)	3500 (1587)	4000 (1814)	
	4	Load Center, Distance	in (mm)	24.0 (610)			
	5	Power Type		LPG			
	6	Operator Type		Sit-Down Rider			
	7	Step Height	in (mm)	19.1 (485)			
	8	Tire Type - Cushion, Solid, Pneumatic		Cushion			
9	Wheels, Number - Front/Rear		2x/2				
DIMENSIONS	10	Lift Height, Top of Fork (TOF)	in (mm)	127 (3232)			
	11	Lift Heights, Standard Limited Free Lift (LFL) w/o LBR (TOF)	in (mm)	5 (140)			
		Lift Heights, Optional Full Free Lift (FFL) w/o LBR (TOF)	in (mm)	35 (902)			
	12	Standard Carriage Width	in (mm)	35.7 (907)			
	13	Forks, Thickness x Width x Length	in	1.6 X 3.9 X 42.0			
		Forks, Thickness x Width x Length	(mm)	(40 X 100 X 1067)			
	14	Fork Spread, Outside Dimensions	in (mm)	33.5 (850)			
	15	Mast Tilt Angles, Forward/Backward	degrees	5F/5B			
	16	Length To Face of Forks	in (mm)	81.6 (2074)	83.1 (2112)	84.4 (2143)	
	17	Overall Width, Standard Tread	in (mm)	37.0 (940)	38.8 (986)		
		Overall Width, Wide Tread	in (mm)	42.7 (1084)			
	18	Height, Standard Mast - Lowered	in (mm)	82 (2080)			
	19	Height, Standard Mast - Extended with LBR	in (mm)	176 (4455)			
		Height, Standard Mast - Extended without LBR	in (mm)	150 (3806)			
	20	Height, Standard Overhead Guard	in (mm)	83 (2088)			
		Height, Optional Overhead Guard	in (mm)	80 (2021)			
	21	Turning Radius, Minimum Outside (OTR)	in (mm)	77.0 (1955)	78.1 (1985)		
	22	Length, Center of Wheel to Face of Forks	in (mm)	14.1 (358)			
	23	Aisle Width, Right Angle Stack (Add Length of Load)	in (mm)	84 (2133)	85.4 (2168)	86.6 (2199)	
	24	Equal Aisle, 90-Degree Intersecting Aisle	in (mm)	69.8 (1773)	70.4 (1788)	70.9 (1800)	
	PERFORMANCE	25	Travel Speed RL/NL	mph (km/h)	10.6/10.7 (17.1/17.3)		
		26	Lift Speed, Standard 2-Stage LFL RL/NL	ft/min (m/s)	114/118 (.58/.60)		
			Lift Speed, Optional 2-Stage FFL RL/NL	ft/min (m/s)	102/106 (.52/.54)		
			Lift Speed, Optional 3-Stage FFL RL/NL	ft/min (m/s)	106/110 (.54/.56)		
27		Lowering Speed, Standard 2-Stage LFL RL/NL	ft/min (m/s)	100/92 (.51/.47)			
		Lowering Speed, Optional 2-Stage FFL RL/NL	ft/min (m/s)	91/73 (.46/.37)			
		Lowering Speed, Optional 3-Stage FFL RL/NL	ft/min (m/s)	94/81 (.48/.41)			
28		Drawbar Pull @ 1 mph RL/NL	lb (kg)	3152/1690 (1430/767)	3095/1579 (1404/716)	3078/1579 (1396/716)	
29		Gradeability @ 1 mph RL/NL ††	%	35/27	31/24	29/22	
WT.	31	Weight, Standard Truck (2-Stg. LFL) NL	lb (kg)	6159 (2794)	6591 (2990)	6971 (3162)	
		Weight, Standard Truck (2-Stg. LFL) RL	lb (kg)	9159 (4155)	10091 (4577)	10971 (4976)	
	32	Axle Loading, Static Front/Rear NL	lb (kg)	2821/3338 (1280/1514)	2731/3859 (1239/1750)	2624/4347 (1190/1972)	
		Axle Loading, Static Front/Rear RL	lb (kg)	8039/1120 (3647/508)	8820/1271 (4001/577)	9582/1389 (4346/630)	
TIRES & WHEELS	33	Tire Size, Front		18 X 6 X 12.125	18 X 7 X 12.125		
	34	Tire Size, Rear		15 X 5 X 11.25			
	35	Wheelbase	in (mm)	54.5 (1385)			
	37	Ground Clearance, Lowest Point NL (with RL subtract -6mm)	in (mm)	3.6 (92)			
	38	Ground Clearance, Center of Wheelbase NL	in (mm)	4.2 (107)			
	39	Service Brake - Method of Control/Operation		Foot/Hydraulic			
	40	Parking Brake - Method of Control/Operation		Hand/Mechanical			
POWERTRAIN	41	Battery Type		Maintenance Free			
	42	Volts/Cold Cranking Amps	v/cca	12/440			
	43	Engine, Manufacturer/Model		PSI 2.0L			
	44	Permanent Output	hp (kW)	44 (33)			
	45	Torque @ Rated RPM	ft/lbs (kg/m)	100 (13.9) @ 1300 RPM			
	46	Number of Cylinders/Displacement	No/cc (ci)	4/1997 (122)			
		Standard Speeds, Forward - Reverse		1-1			
	49	Hydraulic Tank - capacity (drain & refill)	gal (liter)	8.3 (31.4)			
	50	Fuel Tank Capacity (Non LPG Units Only)	gal (liter)	10.2 (38.8)			
	51	Auxiliary Hydraulic Pressure Relief for Attachments	PSI (Mpa)	2250 (15.4)			

(continued from cover)

methods contains a rugged, unitized frame structure with a low step for simple entrance to the operator's compartment. Ergonomically designed overhead guard is bar type for excellent visibility and reduced noise.

Operator's Compartment features cowl-mounted hydraulic control levers positioned on the right side of the steering column. Optional Accutouch electro-hydraulic controls are integrated into the operator's right-side armrest allowing superior ergonomic actuation. Automotive-style pedal arrangement with a large, single inch/brake pedal is standard. Tilt cylinders are located beneath the floor for uncluttered space. Rubber floor mat reduces noise and vibration. Floorplate can be removed without tools for excellent service access. Low step height and a convenient hand grip provide easy entry and exit to and from the truck.

Intellix VSM acts as a master truck controller, providing extensive monitoring and control of truck functions and systems. CANbus technology reduces wiring complexity and enables comprehensive communications between truck systems. The ergonomically positioned dash display transmits continual feedback to the operator and allows for communication of service codes. Comprehensive on-board diagnostics enable quick and easy troubleshooting. The electrical system features sealed connectors and Hall Effect sensors for superior dependability.

Hydraulic System incorporates a gear type pump, cast iron body for quiet efficiency. The system is protected from overloads by a main relief valve for the lift circuit and a secondary relief valve for tilt and auxiliary functions. Oil is double filtered through a 100 mesh suction line strainer and 10 micron return line filter. The hydraulic tank is integrated into the frame. An emergency lowering valve is provided to allow the load to be lowered in the event of power loss. O-ring face seal fittings are used in all high pressure hydraulic connections.

Yale Hi-Vis™ Masts are available in 2-stage LFL, 2-stage FFL, and 3-stage FFL models. Mast features flush-faced design with geometrically matched, angled load roller bearings

which are canted, yet provide full-face roller contact. The mast front rail flange angle coupled with the inverted "J" inner channel and three degree mast rollers significantly reduce channel and roller wear. "J-hook" mast mounting system allows for convenient mast installation and removal. A non-metallic mast pivot bushing with woven reinforcement offers high load carrying capability with outstanding durability.

Options

- Techtronix 100 transmission
 - Auto Deceleration System
 - Controlled power reversal feature
 - Controlled ramp descent
- Powertrain protection with engine shutdown system
- Premium monitoring package
- High air intake with precleaner
- Keyless start (w/auxiliary key switch)
- LED brake and back-up lights
- Headlights and rear drive halogen or LED lights
- Traction speed limiter
- Accutouch mini-lever electro-hydraulic control
- Return-to-set tilt
- High-visibility non-cinch seat belt with or without interlock
- Foot Directional Control pedal
- Optional mast tilt
- Dual side view mirrors
- Audible alarm - reverse actuated 82-102 dB(A) – self-adjusting
- Visible alarm amber strobe light – continuous activated
- Impact monitor
- Load weight display
- Seatside directional control
- Operator password
- Operator pre-shift checklist
- Dual pedal inch/brake
- Rear drive handle with horn button
- Fire extinguisher
- Integral sidershifter
- UL option, LPS

GC030-035VX, GC040SVX MAST DIMENSIONS								
Max. Fork Ht. (TOF) †	Overall Lowered Ht.	Overall Extended Height		Free lift (TOF)		Approx. Total Weight of Std. Equipped Truck w/o Load		
		with LBR	w/o LBR	with LBR	w/o LBR	GC030VX	GC035VX	GC040SVX
in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	lbs (kg)	lbs (kg)	lbs (kg)
2-Stage Limited Free Lift (LFL) Hi-Vis™ Mast								
83 (2132)	61 (1530)	132(3355)	107 (2706)	5 (140)	5 (140)	5960 (2704)	6394 (2900)	6774 (3073)
127 (3232)	82 (2080)	176 (4455)	150 (3806)	5 (140)	5 (140)	6159 (2794)	6591 (2990)	6971 (3162)
2-Stage Full Free Lift (FFL) Hi-Vis™ Mast								
114 (2918)	76 (1930)	164 (4141)	138 (3492)	29 (752)	51 (1306)	6179 (2803)	6611 (2999)	6991 (3171)
126 (3218)	82 (2080)	175 (4441)	150 (3792)	35 (902)	57 (1416)	6236 (2829)	6668 (3024)	7048 (3197)
3-Stage Full Free Lift (FFL) Hi-Vis™ Mast								
175 (4450)	78 (1980)	224 (5673)	198 (5019)	31 (802)	53 (1356)	6435 (2919)	6867 (3115)	7247 (3287)
187 (4750)	82 (2080)	236 (5973)	210 (5319)	35 (902)	57 (1456)	6479 (2939)	6911 (3135)	7291 (3307)
198 (5050)	88 (2230)	247 (6273)	222 (5619)	41 (1052)	63 (1606)	6536 (2965)	6968 (3161)	7348 (3333)
216 (5510)	94 (2380)	265 (6723)	239 (6069)	47 (1202)	69 (1756)	6655 (3019)	7087 (3215)	7467 (3387)

† Lift heights over 164.0" (4161 mm) maximum fork height are considered highlifts and require reduced capacity and restricted back tilt. Total approximate weights listed include mast, standard carriage, load backrest (LBR) and 70 lbs. LPG tank and tank bracket. RL= Rated Load NL = No Load LBR = Load Backrest



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Manufactured in our own ISO 9001 and 14001 Registered Facilities

Truck performance may be affected by the condition of the vehicle, how it is equipped and the application. Consult your Yale® Industrial Truck Dealer if any of the information shown is critical to your application. Specifications are subject to change without notice.

This truck meets all applicable mandatory requirements of ANSI B56.1 Safety Standard for Powered Industrial Trucks at the time of manufacture. Classified by Underwriters' Laboratories, Inc., as to fire and electric shock hazard only for Type E industrial trucks.

The Yale® products included in this document may be covered by US patent 6,684,148 and other patents pending.