

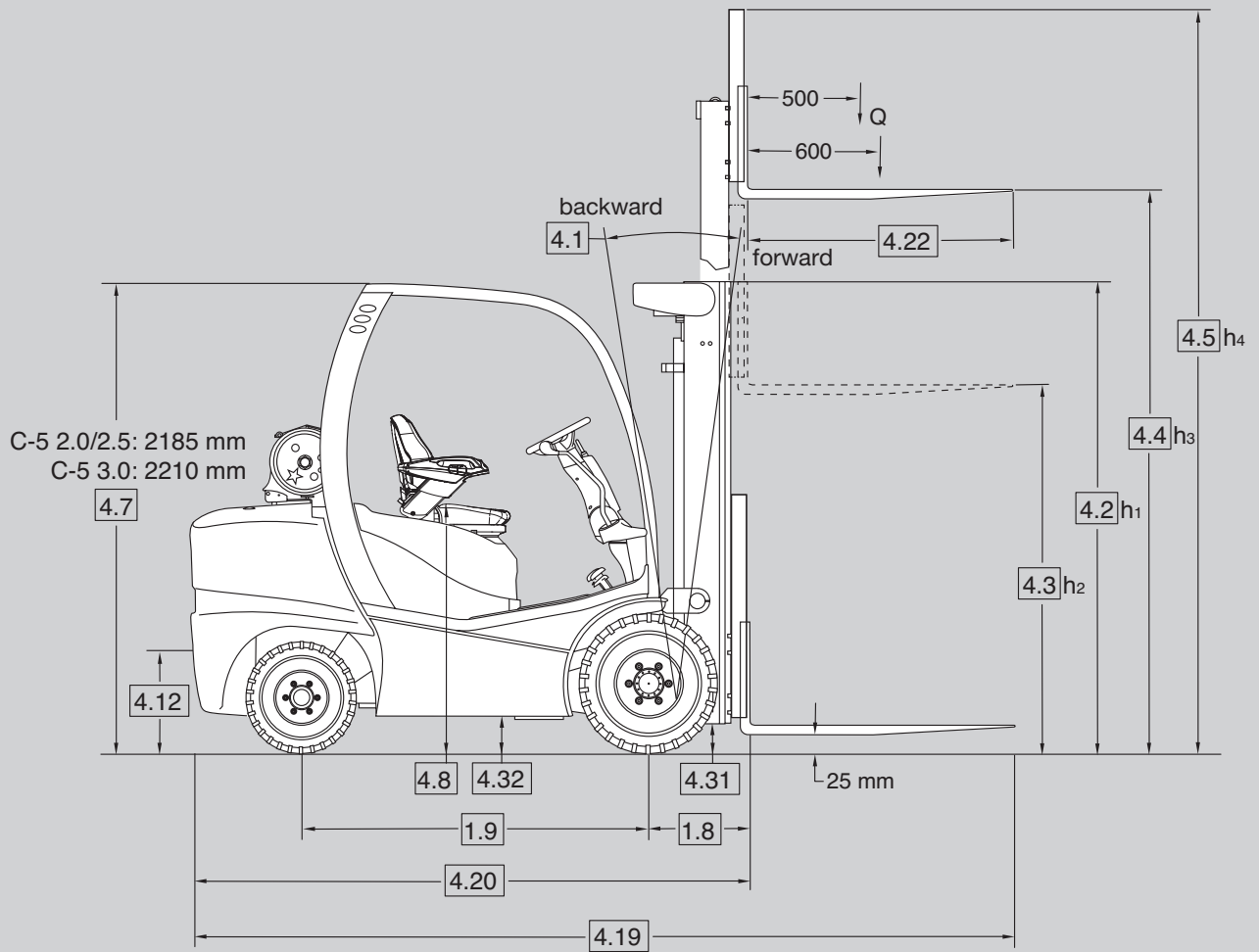
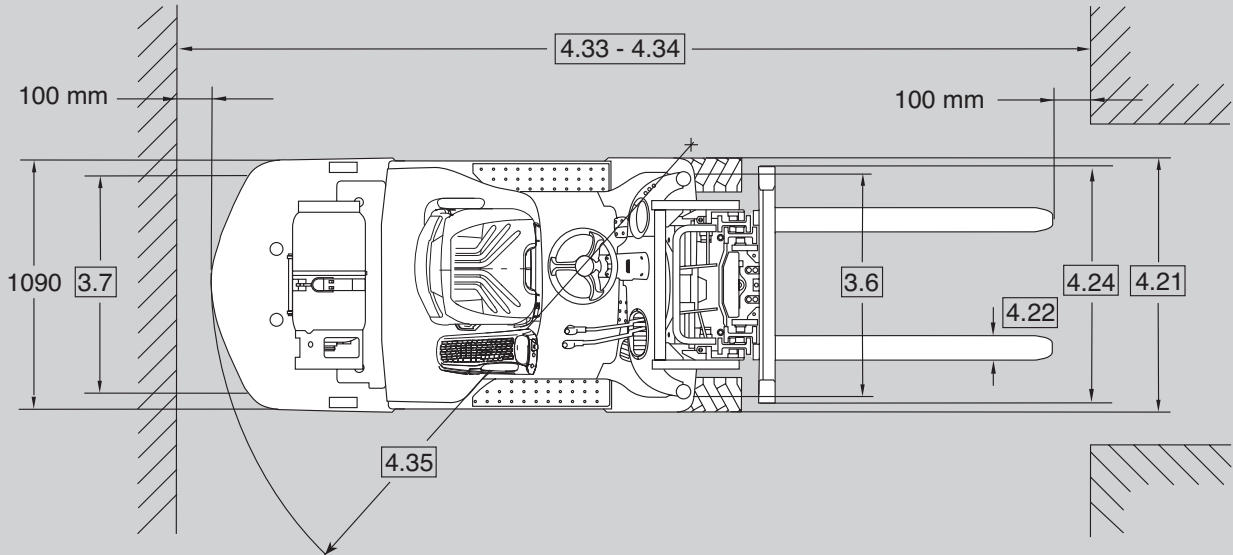
**CROWN**

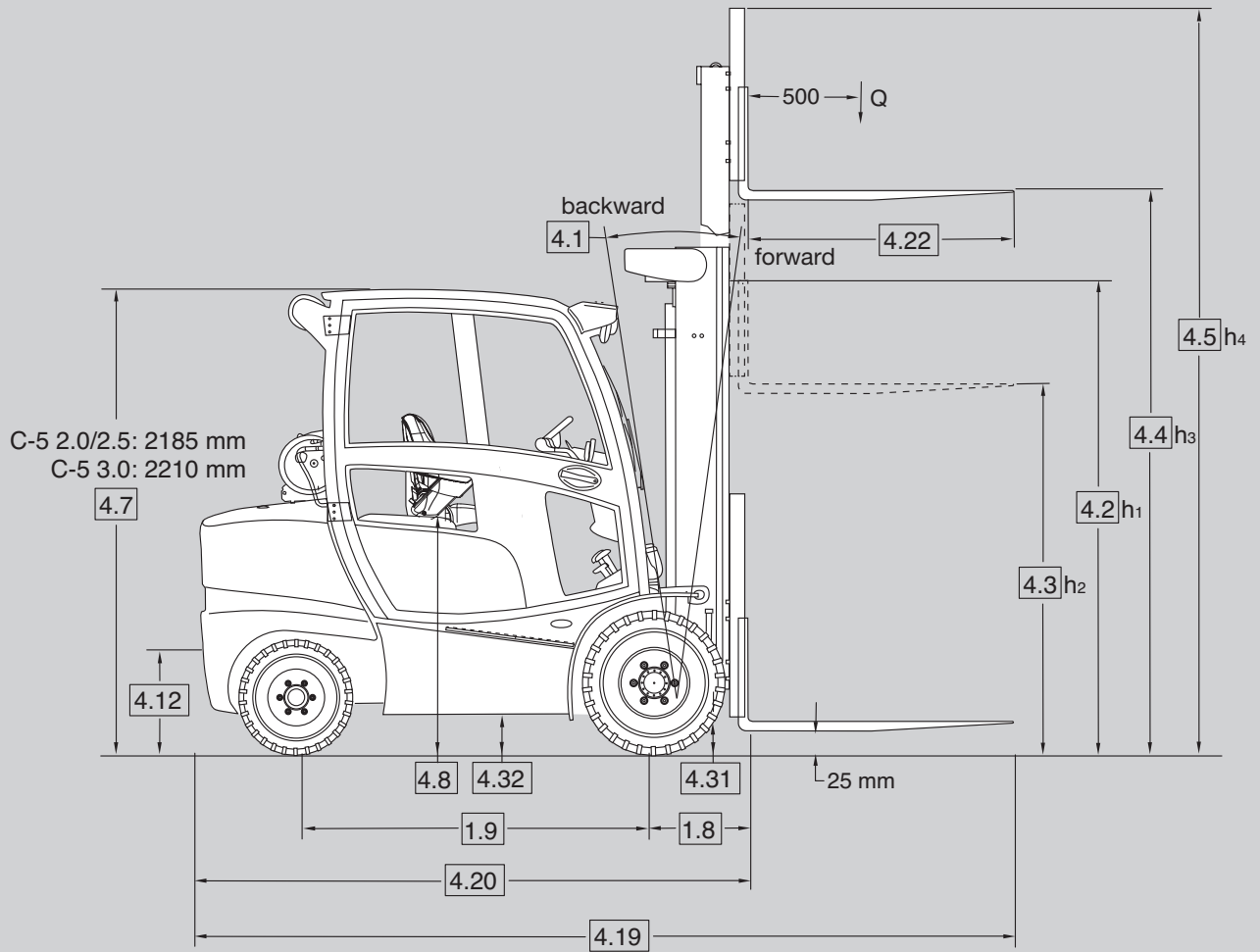
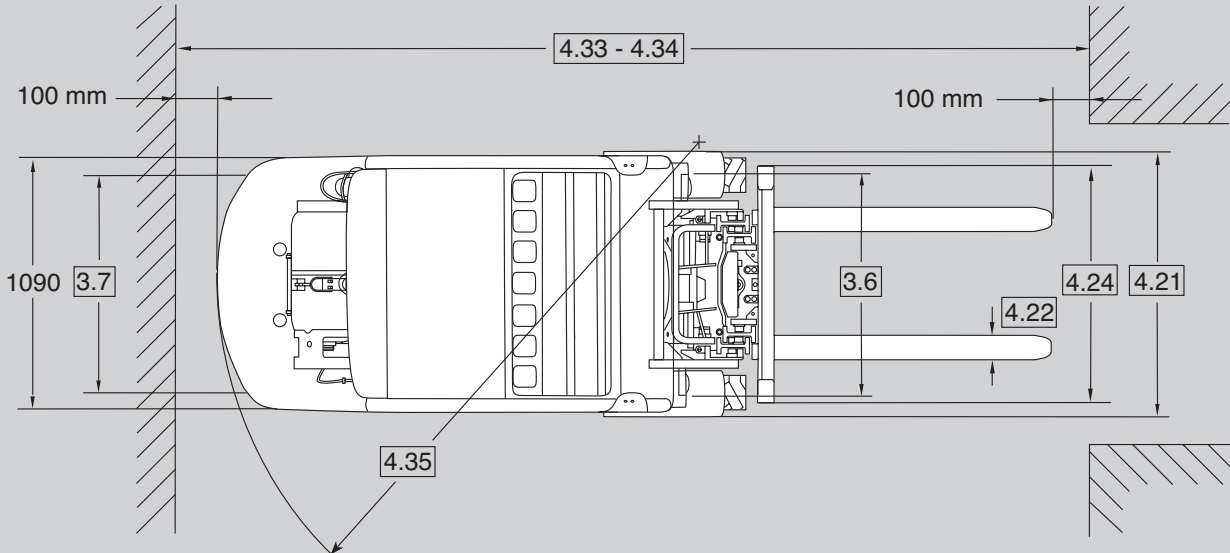
# C-5 SERIES

## **Specifications**

LPG Counterbalance Truck – SE







**C-5 Series**

**Specifications**

General Information	1.1	<b>Manufacturer</b>	Crown Equipment Corporation						
	1.2	<b>Model</b>			C-5 1050-2.0	C-5 1050-2.5	C-5 1050-3.0		
	1.3	<b>Power</b>	electric			LPG			
	1.4	<b>Operator Type</b>				Driver-seated			
	1.5	<b>Load Capacity</b>	at 500 mm	Q	t	2.0	2.5	3.0	
	1.6	<b>Load Centre</b>		c	mm	500			
	1.8	<b>Load Distance</b>		x	mm	455		460	
	1.9	<b>Wheel Base</b>		y	mm	1625		1700	
	Weights	2.1	<b>Weight</b>			kg	3905	4280	5060
2.2		<b>Axle Load</b>	w. load front / rear		kg	5315 / 590	6080 / 700	7000 / 1060	
2.3		<b>Axle Load</b>	w.o. load front / rear		kg	2125 / 1780	2085 / 2195	2265 / 2795	
Tyres	3.1	<b>Tyre Type</b>	Super Elastic (SE), Cushion (C), Pneumatic (P)			SE, P			
	3.2	<b>Tyre Size</b>	front diameter, width,	std. / dual		26 x 7.00 - 12		28 x 9 - 15	
			rim diameter	wide		27 x 10 - 12		355 / 45 - 15	
	3.3	<b>Tyre Size</b>	rear diameter, width, rim diameter			6.00 - 9		6.50 - 10	
	3.5	<b>Wheels</b>	no. (x=driven) front/rear			2x / 2			
	3.6	<b>Track</b>	front	std. / wide / dual	b10	mm	1015 / 1195 / 1410		1070 / 1250 / 1540
			rear	std., wide	b11	mm	955		960
Dimensions	4.1	<b>Mast Tilt / Fork Carriage</b>	forward / backward		°	5 / 5			
	4.2	<b>Mast</b>	collapsed height	h1	mm	see table 1		see table 2	
	4.3	<b>Free Lift</b>		h2	mm	see table 1		see table 2	
	4.4	<b>Lift Height</b>		h3	mm	see table 1		see table 2	
	4.5	<b>Mast</b>	extended height	h4	mm	see table 1		see table 2	
	4.7	<b>Overhead Guard Height</b>		h6	mm	2185		2210	
	4.8	<b>Seat Height</b>		h7	mm	1095		1110	
	4.12	<b>Tow Hitch Height</b>		h10	mm	605		630	
	4.19	<b>Overall Length</b>		l1	mm	3650	3660	3785	
	4.20	<b>Headlength</b>		l2	mm	2585	2595	2720	
	4.21	<b>Overall Width</b>	front / rear, std. tyre	b1/b2	mm	1195 / 1090		1295 / 1090	
			front / rear, wide	b1/b2	mm	1350 / 1090		1435 / 1090	
			front / rear, dual	b1/b2	mm	1585 / 1090		1765 / 1090	
	4.22	<b>Fork Dimension</b>		th x w	mm	45 x 100		45 x 125	
			std. / optional	l	mm	990 / 815, 915, 1065, 1145, 1220, 1370, 1525, 1830			
	4.23	<b>Fork Carriage</b>	ISO / FEM / ITA			Class II		Class III	
	4.24	<b>Fork Carriage Width</b>	with load backrest		b3	mm	1120		
	4.31	<b>Ground Clearance</b>	with load below mast		m1	mm	135	150	
	4.32		centre wheelbase		m2	mm	160	175	
	4.33	<b>Working Aisle Width</b>	pallets 1000x1200 traverse		Ast	mm	4010	4185	
4.34	pallets 800x1200 length		Ast	mm	4210	4385			
4.35	<b>Turning Radius</b>		Wa	mm	2355	2385	2525		
4.35	<b>Right Angle Stack</b>	add load and clearance			mm	2810	2985		
Performance	5.1	<b>Travel Speed</b>	w./w.o. load		km/h	20 / 20			
	5.2	<b>Lift Speed</b>	w./w.o. load		m/s	0.58 / 0.64			
	5.3	<b>Lower Speed</b>	w./w.o. load		mm	0.46 / 0.47			
	5.5	<b>Drawbar Pull</b>	w./w.o. load (max.)		N	20450		17060	
	5.7	<b>Gradeability</b>	w./w.o. load (max.)		%	30 / 40	26 / 37	18 / 27	
	5.9	<b>Acceleration Time</b>	w./w.o. load		s	5.5 / 4.7	5.5 / 4.7	6.2 / 5.4	
	5.10	<b>Brake</b>	service			Hydraulic / Power Disc / Foot			
park					Hydraulic / Power Disc / Switch				
Engine / Transmission	7.1	<b>Engine Manufacturer</b>	type			Crown 4024			
	7.2	<b>Engine Rated Output</b>	per ECE R120		kW / HP	43 / 58			
					Nm @ rpm	171 @ 1680			
	7.3	<b>Rated Speed</b>			rpm	2800			
	7.4	<b>No. of Cylinder / Displacement</b>			qty / cm³	4 / 2400			
	8.1	<b>Type</b>				Hydrodynamic			
	8.2	<b>Available Working Pressure for Attachments</b>			bar	179		214	
	8.3	<b>Oil Capacity for Attachments</b>			l/min	72			
8.4	<b>Sound Level at Driver's Ear</b> DIN EN 12053			dB (A)	81				

Table 1 – Mast C-5 1050-2.0 / C-5 1050-2.5

					TL						
4.1	<b>Mast Tilt</b>	forward / backward		°	5 / 5						
4.2	<b>Mast</b>	collapsed height	h1	mm	2185	2340	2490	2645	2795	2950	3100
4.3	<b>Free Lift</b>	without load backrest	h2	mm	145						
		with load backrest	h2	mm	145						
4.4	<b>Lift Height</b>		<b>h3</b>	<b>mm</b>	<b>3200</b>	<b>3505</b>	<b>3810</b>	<b>3935</b>	<b>4035</b>	<b>4340</b>	<b>4645</b>
4.5	<b>Mast</b>	extended height, w.o. lbr.	h4	mm	3865	4170	4475	4600	4700	5005	5310
		extended height, with lbr.	h4	mm	4445	4750	5055	5185	5285	5590	5895
	<b>Interlock</b>	fork height		mm	1980						

					TF							
4.1	<b>Mast Tilt</b>	forward / backward		°	5 / 5							
4.2	<b>Mast</b>	collapsed height	h1	mm	2035	2185	2340	2490	2645	2795	2950	3100
4.3	<b>Free Lift</b>	without load backrest	h2	mm	1395	1545	1700	1850	2005	2155	2310	2460
		with load backrest	h2	mm	785	935	1090	1240	1395	1545	1700	1850
4.4	<b>Lift Height</b>		<b>h3</b>	<b>mm</b>	<b>2895</b>	<b>3200</b>	<b>3505</b>	<b>3810</b>	<b>4110</b>	<b>4415</b>	<b>4670</b>	<b>4975</b>
4.5	<b>Mast</b>	extended height, w.o. lbr.	h4	mm	3480	3785	4090	4395	4700	5055	5360	5665
		extended height, with lbr.	h4	mm	4145	4445	4750	5055	5360	6705	5920	6225
	<b>Interlock</b>	fork height		mm	1545	2460		2155	2310	2460	2615	

					TT						Quad				
4.1	<b>Mast Tilt</b>	forward / backward		°	5 / 5						5 / 3				
4.2	<b>Mast</b>	collapsed height	h1	mm	2185	2340	2490	2645	2795	2950	3100	2185	2340	2490	2645
4.3	<b>Free Lift</b>	without load backrest	h2	mm	1625	1775	1930	2080	2235	2385	2540	1520	1675	1825	1980
		with load backrest	h2	mm	935	1090	1240	1395	1545	1700	1850	935	1090	1240	1395
4.4	<b>Lift Height</b>		<b>h3</b>	<b>mm</b>	<b>4775</b>	<b>5230</b>	<b>5485</b>	<b>5865</b>	<b>6245</b>	<b>6550</b>	<b>7010</b>	<b>6095</b>	<b>6550</b>	<b>7010</b>	<b>7465</b>
4.5	<b>Mast</b>	extended height, w.o. lbr.	h4	mm	5335	5795	6050	6430	6810	7115	7570	6710	7165	7620	8080
		extended height, with lbr.	h4	mm	6020	6480	6735	7115	7495	7800	8255	7345	7800	8255	8715
	<b>Interlock</b>	fork height		mm	2410		2310	2460	2615	2765	1775	1930	2080	2235	

Table 2 – Mast C-5 1050-3.0

					TL						
4.1	<b>Mast Tilt</b>	forward / backward		°	5 / 5						
4.2	<b>Mast</b>	collapsed height	h1	mm	2185	2340	2490	2645	2795	2950	3100
4.3	<b>Free Lift</b>	without load backrest	h2	mm	145						
		with load backrest	h2	mm	145						
4.4	<b>Lift Height</b>		<b>h3</b>	<b>mm</b>	<b>2920</b>	<b>3200</b>	<b>3530</b>	<b>3810</b>	<b>4035</b>	<b>4340</b>	<b>4645</b>
4.5	<b>Mast</b>	extended height, w.o. lbr.	h4	mm	3685	3965	4295	4575	4805	5110	5415
		extended height, with lbr.	h4	mm	4170	4425	4780	5055	5285	5590	5895
	<b>Interlock</b>	fork height		mm	1980						

					TF						
4.1	<b>Mast Tilt</b>	forward / backward		°	5 / 5						
4.2	<b>Mast</b>	collapsed height	h1	mm	2035	2185	2340	2490	2645	2795	2950
4.3	<b>Free Lift</b>	without load backrest	h2	mm	1270	1420	1570	1725	1875	2030	2180
		with load backrest	h2	mm	785	935	1090	1240	1395	1545	1700
4.4	<b>Lift Height</b>		<b>h3</b>	<b>mm</b>	<b>2665</b>	<b>2970</b>	<b>3275</b>	<b>3580</b>	<b>3885</b>	<b>4190</b>	<b>4445</b>
4.5	<b>Mast</b>	extended height, w.o. lbr.	h4	mm	3430	3735	4040	4345	4650	4955	5210
		extended height, with lbr.	h4	mm	3915	4220	4525	4830	5135	5440	5690
	<b>Interlock</b>	fork height		mm	1445	2360		2055	2205	2360	

					TT						
4.1	<b>Mast Tilt</b>	forward / backward		°	5 / 5						
4.2	<b>Mast</b>	collapsed height	h1	mm	2185	2340	2490	2645	2795	2950	
4.3	<b>Free Lift</b>	without load backrest	h2	mm	1420	1570	1725	1875	2030	2180	
		with load backrest	h2	mm	935	1090	1240	1395	1545	1700	
4.4	<b>Lift Height</b>		<b>h3</b>	<b>mm</b>	<b>4340</b>	<b>4800</b>	<b>5050</b>	<b>5435</b>	<b>5815</b>	<b>6120</b>	
4.5	<b>Mast</b>	extended height, w.o. lbr.	h4	mm	5110	5565	5820	6200	6580	6885	
		extended height, with lbr.	h4	mm	5590	6050	6300	6685	7065	7370	
	<b>Interlock</b>	fork height		mm	2310		2205	2360	2510		

**Standard Equipment**

1. Industrial 2.4 liter Crown LPG engine compliant to current EU standards
2. Hydrodynamic transaxle
3. Dual open-core radiator
4. Crown's Access 1 2 3® Comprehensive System Control
5. Intrinsic Stability System™ Greater mass and low centre of gravity
  - Tilt interlock
  - Tilt speed control
  - Stalled engine braking and steering
  - Hill hold
6. Top speed limiter
7. Corrosion resistant chain with high performance chain lube
8. Fold down LP bottle bracket
9. Three pedal control with separate inching/brake
10. Operator compartment design features
  - Low cowl for fork and floor visibility
  - Wide placed overhead guard uprights reduce visual interference
  - Isomounted overhead guard reduces vibration
  - Comfort suspension safety seat MSG 65 vinyl, hip restraints and anti-cinch seat belt, orange
  - Comfort right hand armrest
    - vertical and horizontal adjustable
    - includes horn button
  - Infinitely adjustable steering wheel column
  - Nylon covered control handles with tactile feedback
  - Natural position for forward/reverse selector
  - Rubber floor mat/rubber covered pedals
  - Mud scraper and step plate
11. Operator entry/exit
  - Extra wide step
  - Large entry/exit
  - Overhead guard post for easy hand hold
  - Contoured seat deck
  - Compact steering column and small steering wheel
12. 990 mm forks
13. 1120 mm wide fork carriage with upper and lower thrust rollers
14. High visibility mast with in-line hose routing
15. Hour meter/event memory
16. No tool lift out floor boards
17. Three spool valve
18. O-ring face seal hydraulic fittings
19. Colour-coded wiring
20. 12-volt alternator
21. Super Elastic (SE) tyres
22. Crown Power Brakes
23. Rigid mounted heavy-duty steer axle with grease zerks
24. Single element air cleaner
25. Severe duty battery
26. e-Smart™: LPG fuel level indicator
27. Air filter restriction indicator
28. Tow pin
29. Horn
30. Radiator Grill
31. 3-way catalytic converter

**Optional Equipment**

1. On-Demand Cooling (ODC)
2. TL mast (2-stage)
3. TT mast (3-stage)
4. Quad mast (4-stage)
5. Polished and full taper forks (915, 1015, 1065, 1100, 1145, 1220, 1370, 1525 and 1830 mm)
6. Quick disconnect hydraulic connections
7. Attachment pressure regulator and gauge
8. Special tilt angle
9. Tilt Position Assist TPA - Mast stops in vertical position
10. Load backrest heights (915, 1065, 1220 and 1525 mm)
11. Accessory hydraulics, integrated sidsifter and other attachments
12. Clamp interlock switch
13. Work lights (Halogen or LED)
14. Strobe light (Halogen or LED)
15. Back-up and brake lights
16. Turn signals
17. Smart travel alarm – reverse forward or both

18. Floor Spotlight, blue
19. Keyless on/off switch
20. Fixed LPG bottle bracket Brackets for LPG bottle in various diameters and lengths
21. Swing out and drop down bottle bracket
22. Rear post handle with horn button
23. Comfort suspension seat MSG 65 – fabric
24. High comfort air suspension seat MSG 75 - vinyl or fabric
25. Work Assist Accessories
  - Pad clip and hook
  - Accessory clamp
  - Terminal mounting
  - Fire extinguisher
  - Operator fan
  - Mirrors
  - Cup holder
  - Shrink wrap holder
  - Storage net or pocket behind seat
  - Pencil holder
26. Radiator screen
27. Air intake pre-cleaner
28. Belly pan
29. Positive/Negative accessory cable
30. InfoLink ready
31. Counterweight grill
32. Mirrors – plastic or glass
33. 1345 mm wide carriage
34. Wide tread drive tyres
35. Dual drive tyres
36. Non marking tyres
37. Air-filled tyres
38. Hydraulic Accumulator
39. Seltbelt Interlock, orange
40. Two wheel chocks
41. Load debris guards for front fenders
42. Storage

**Cabin Features**
**Hard Cabin**

Automotive-class comfort. Cabin height as on standard overhead guard height. Front screen with tempered glass, wiper and washer, curved front and top glass and Work Assist Rail. Top screen with laminated safety glass, LED Dome light, Roll-up overhead sunshade and DIN 1 slot for radio.

Rear screen with tempered glass, defrost with 15 minute auto off timer, wiper and washer, tilting window, fold down rear panel area and cabin pressure relief mechanism. Removable doors with gas spring and door locks, two-way tempered glass sliding windows on both sides, two piece Polycarbonate lower door panel, storage pockets in both doors and 12 Volt DC plug. Seat deck cover insulation from heat and noise. Door mounted cabin heater with temperature control, washable filter element, and 3-speed fan. Three adjustable outlets: foot, operator, defrost.

**Hard Cabin Options**

1. Headlights
  - 12V LED
  - Dipped / low beam
  - Turn / indicator lights
  - Hazard flashing lights
2. Tail lights
  - 12V LED at lower rear
  - Turn / indicator lights
  - Hazard flashing lights
3. Media ready option
  - DIN 1 slot for radio
  - Two overhead speakers
  - Antenna
  - Power harness
4. Single safety glass lower door panel

**Soft Cabin**

Front screen with tempered glass, wiper and washer, curved front and top glass and tubular handles for entry and exit and Work Assist options. Polycarbonate top screen mounted on top of OHG, PVC zipper type cabin rear with large window, PVC zipper type roll-up doors with large windows. Cabin height increased by 17 mm.

**Partial Cabin**

Same features as soft cabin, but without doors.

**Windshield only**

Front screen with tempered glass, wiper and washer, curved front and top glass and Work Assist Rail.

### Driveability

A wide entry step at low height greatly improves entry/exit on both sides of the truck. The V-contoured engine cover allows the operator to easily glide into the truck's seat. The curved posts of the overhead guard open up the entry/exit window and provide a comfortable grip location for a variety of operator heights. Further facilitating entry/exit is a spring-loaded, tilt steering column that easily moves up and away. The spacious floor board is uncluttered and includes a webbed floor mat that insulates the operator from vibration and heat. Additional operator comfort is achieved through reduced inching and brake pedal efforts along with a lower pedal height off the floor.

Crown's Intrinsic Stability System achieves improved operator confidence through a proactive approach to safety and stability. Integrated into the truck's components and control system, Crown's Intrinsic Stability System includes the following features:

- Greater mass and low centre of gravity
- Tilt interlock
- Tilt speed control
- Stalled engine braking and steering
- Hill hold
- Ramp speed control

The C-5 features excellent visibility everywhere you look: a low front dash board for fork and carriage visibility, a high visibility mast, a compact steering column, a sculpted floorboard design, an overhead guard top plate and bar configuration and a low LPG bottle height. The control handles are crafted into the compartment and designed to provide tactile feedback for easy selection. Actuation forces are minimal and responsive. The switch operated parking brake with tone alert enhances operator entry/exit and naturally encourages its use.

A large convex horn button is housed in the center of the steering wheel. Isolation systems for the engine and the operator cell virtually eliminate all vibrations to the operator. Hot air is directed away from the operator by a large counterweight opening with a wedge deflector.

### Powertrain

Derived from a diesel engine, the C-5 Series features an industrial in-line 4 cylinder 2.4L emissions compliant LPG engine with a specific 3-way catalytic converter designed to reduce carbon monoxide, hydrocarbons and oxides of nitrogen.

The heavy duty industrial engine includes a heat resistant cast iron block and head. The 7.6 liter oil capacity and standard engine oil cooler offer additional cooling for improved thermal capacity and extended component life. A gear-driven valve train and auxiliary pump eliminates belt or chain adjustments. Operator comfort is further increased through internal balancing of the engine.

The Carraro TA135 single speed hydrodynamic power shift transmission offers an optimised gear construction for low noise and vibrations and increased efficiency. The robust design of the Carraro transmission includes forged gears and drive shaft, ductile iron axle, differential support housings and high temperature seals and o-rings, all contributing to increased life and durability.

### Cooling

A standard Dual Open-Core Radiator offers separate cooling for the engine and transmission and is isolated from the truck, separating it from impact and improving radiator life. The open core feature offers large spacing between cooling fins for reduced clogging. Air flow is maximised by a ten-blade fan that increases radiator performance and efficiency.

The full fan shroud surrounds the radiator core surface. Its two-piece design aids in serviceability and is sealed to prevent air flow from bypassing the radiator core. Air flow is further maximised by the custom venturi design that directs air over the entire surface of the radiator. Crown's optional On-Demand Cooling System delivers precise cooling and radiator clearing for economical savings and uptime in harsh environment applications. Precise cooling is achieved through an independent radiator fan that automatically adjusts its speed to manage engine and transmission temperatures. The independent fan also allows for optimal radiator clearing by reversing its direction at engine start.

### Power Brake

The Crown Power Brake is a unique hydraulic powered, full circle brake with few parts and larger friction areas that contribute to longer brake life. This design reduces operator pedal effort, improves brake responsiveness and features direct and easy access to the friction pad, which reduces downtime for brake maintenance.

The parking brake is an integral part of the service brake and is activated by a one-touch push button located on the dashboard to the right of the steer wheel column. An audible alarm reminder is standard.

### Hydraulics

The C-5 Series premium hydraulic function control valve provides a precise metering of lift, tilt and accessory functions. Operator stress is reduced through minimal hydraulic lever actuation. Crown's lift/tilt interlock system provides extended forward tilt at low fork heights and reduced forward tilt at elevated heights for improved truck stability. The interlock system also inhibits accidental hydraulic functions when the operator is out of the seat. The tilt compensator

maintains proper tilt speed control under all load conditions.

Maximum lowering speed is limited by a pressure compensating flow control valve and velocity fuses. Integrated hydraulic cylinder cushions soften mast staging. All lift cylinder rams are plated and when the forks are lowered, retract into the hydraulic oil for additional corrosion protection.

The steel oil reservoir is integral to the frame, aiding in the dissipation of hydraulic oil heat. This clean, leak-free design includes a suction strainer with separate, easily accessible fill port and dipstick with a dual filtered breather. Hydraulic oil is returned through an environmentally friendly cartridge filter, which is easily serviced.

A 2-stage filtration system on the breather/dipstick offers superior protection from contamination to the hydraulic oil and from oil misting, which could create a dirty residue on the inside of the engine compartment. The steering and power brake systems are also hydraulic powered, assisting in the reduction of operator fatigue and improved productivity.

### Mast Assembly

The heavy-duty mast of the C-5 Series is engineered to provide smooth, reliable operation without compromising strength or quality. The large, rugged mast trunnions are mounted on the drive axle. Securing the mast are extra heavy tilt cylinders with self-aligning bushings. Crown's high visibility mast features a nested-rail design with lift cylinders positioned behind the rails.

Inline hose routing also reduces visual interference. Large hydraulic hose pulleys and hose placement are engineered to reduce hose wear and increase hose life. Large lift chains are used for long reliable service life.

### Carriage

A FEM / ISO / ITA Class II A carriage is standard on C-5 2.0 and C-5 2.5 model range, a FEM / ISO / ITA Class III A carriage is standard on C-5 3.0 models.

An optional hook-on type ISO sideshifter or other attachments are easy to add.

### Steering

A fully hydrostatic steering system with equal area and double-acting cylinder provides an equally responsive steering rate both ways (4.8 turns lock to lock). The rugged axle frame, forged spindle and connecting links eliminate the need for adjustment. A two-piece spindle and kingpin with tapered roller bearings improves life and serviceability. Spherical bearings with straight pins in the connecting links eliminate any play in the linkage. All bearing locations are sealed to exclude contaminants and are equipped with lubrication fittings for ease of service.

### Electrical System

The C-5 Series comes with a severe duty wet cell battery. Exclusive on-board information and diagnostics system includes fully integrated Access 1 2 3® Comprehensive System Control with CAN Bus communication. Features include:

- Engine diagnostics
- Truck level diagnostics
- Component analyser
- Password protection
- Speed control features
- Performance modes

Crown display is fully integrated, giving the operator and service technician real time information and messaging for event codes, fuel level, truck hours or real time speed. The alpha-numeric display serves as the communication nerve centre with the following indicator lights:

- Alternator/battery
- Malfunction
- Seat belt
- Park brake status
- Low oil pressure
- High transmission temperature
- Engine coolant temperature
- Multi-stage fuel level lights

All wire harnesses are wrapped with corrugated sleeving and are fully sealed with ultrasonically welded connections for improved reliability and durability. All electrical connectors are sealed to IP67.

### Safety Regulations

Conforms to European safety standards.

Dimensions and performance data given may vary due to manufacturing tolerances. Performance is based on an average size vehicle and is affected by weight, condition of truck, how it is equipped and the conditions of the operating area. Crown products and specifications are subject to change without notice.