

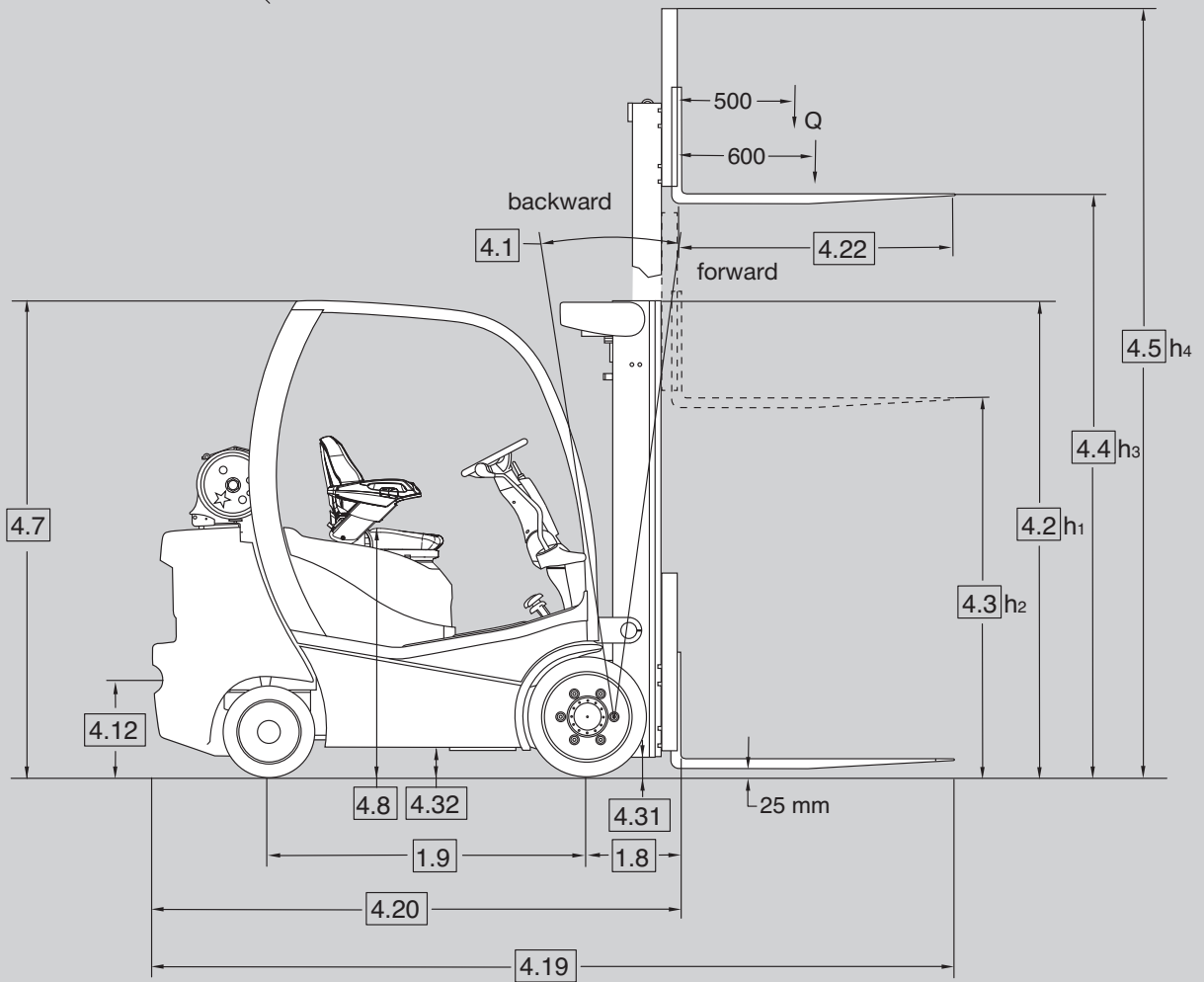
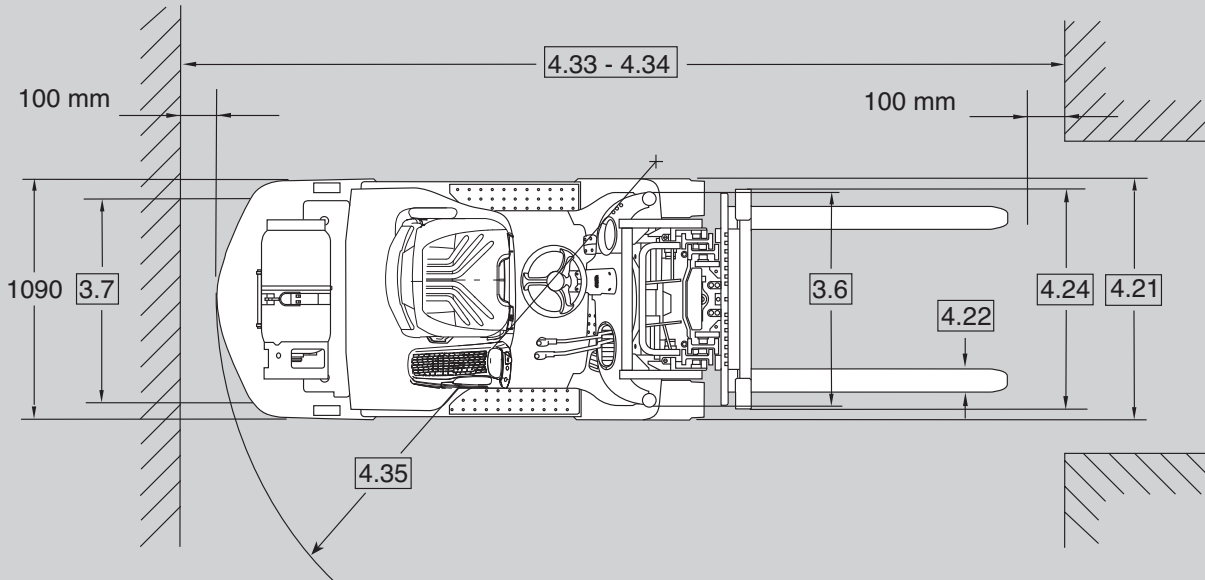
CROWN

C-5 SERIES

Specifications

LPG Counterbalance Truck – Cushion





C-5 Series

Specifications

General Information	1.1	Manufacturer	Crown Equipment Corporation						
	1.2	Model			C-5 1000-2.0	C-5 1000-2.5	C-5 1000-3.0		
	1.3	Power	electric			LPG			
	1.4	Operator Type			Driver-seated				
	1.5	Load Capacity		Q	t	2.0	2.5	3.0	
	1.6	Load Centre		c	mm	500			
	1.8	Load Distance		x	mm	425		430	
	1.9	Wheel Base		y	mm	1420			
	Weights	2.1	Weight			kg	3955	4415	4940
2.2		Axle Load	w. load front / rear		kg	5250 / 705	6005 / 910	6740 / 1200	
2.3		Axle Load	w.o. load front / rear		kg	1940 / 2015	1865 / 2550	1750 / 3190	
Tyres	3.1	Tyre Type				Cushion			
	3.2	Tyre Size	front diameter, width, rim diameter			21 x 7 x 15		21 x 8 x 15	
	3.3	Tyre Size	rear diameter, width, rim diameter			16 x 6 x 10.5		18 x 6 x 12.125	
	3.5	Wheels	no. (x=driven) front/rear			2x / 2			
	3.6	Track	front, std. / wide	b10	mm	910 / 1015		910 / 990	
	3.7		rear	b11	mm	910		910	
Dimensions	4.1	Mast Tilt / Fork Carriage	forward / backward			° 5 / 5			
	4.2	Mast	collapsed height		h1	mm	see table 1 and 2		see table 3
	4.3	Free Lift			h2	mm	see table 1 and 2		see table 3
	4.4	Lift Height			h3	mm	see table 1 and 2		see table 3
	4.5	Mast	extended height		h4	mm	see table 1 and 2		see table 3
	4.7	Overhead Guard Height			h6	mm	2120		
	4.8	Seat Height			h7	mm	1095		1110
	4.12	Tow Hitch Height			h10	mm	570		590
	4.19	Overall Length			l1	mm	3390	3420	3510
	4.20	Headlength			l2	mm	2335	2365	2455
	4.21	Overall Width	std.	b1/b2	mm	1090		1140	
	4.22		front, wide	b1	mm	1195		1195	
	4.22	Fork Dimension			th x w	mm	45 x 100		45 x 125
	4.23		std. / optional		l	mm	990 / 815,915,1015,1065,1100,1145,1220,1370,1525,1830		
	4.23	Fork Carriage	ISO / FEM / ITA				Class IIA		Class IIIA
	4.24	Fork Carriage Width	std. / wide		b3	mm	965 / 1120		
	4.31	Ground Clearance	with load below mast		m1	mm	75		
	4.32		centre wheelbase		m2	mm	125		
4.33	Working Aisle Width	pallets 1000x1200 traverse		Ast	mm	3650	3720	3790	
4.34		pallets 800x1200 length		Ast	mm	3850	3920	3990	
4.35	Turning Radius			Wa	mm	2025	2096	2160	
Performance	5.1	Travel Speed	w./w.o. load			km/h	18 / 18		
	5.2	Lift Speed	w./w.o. load			m/s	0.58 / 0.64		
	5.3	Lower Speed	w./w.o. load			mm	0.47 / 0.46		
	5.5	Drawbar Pull	w./w.o. load (max.)			N	19370		
	5.7	Gradeability	w./w.o. load (max.)			%	22 / 34	18 / 28	16 / 21
	5.9	Acceleration Time	w./w.o. load			s	5.5 / 4.7	5.5 / 4.7	6.2 / 5.4
5.10	Brake	service				Hydraulic / Power Disc / Foot			
		park				Hydraulic / Power Disc / Switch			
Engine / Transmission	7.1	Engine Manufacturer	type				Crown 4024		
	7.2	Engine Rated Output	per ECE R120			kW / HP	43 / 58		
						Nm @ rpm	171 @ 1680		
	7.3	Rated Speed				rpm	2800		
	7.4	No. of Cylinder / Displacement			qty / cm ³		4 / 2400		
	8.1	Transmission Type					Hydrodynamic		
	8.2	Available Working Pressure for Attachments				bar	179	214	
	8.3	Oil Capacity for Attachments				l/min	72		
8.4	Sound Level at Driver's Ear DIN EN 12053				dB (A)	81			

Table 1 – Mast C-5 1000-2.0 / C-5 1000-2.5

				TL			TF							
4.1	Mast Tilt	forward / backward	°	5 / 5			5 / 5							
4.2	Mast	collapsed height	h1 mm	2110	2265	2415	1960	2110	2265	2415	2570	2720	2875	3025
4.3	Free Lift	without load backrest	h2 mm	145			1395	1545	1700	1850	2005	2155	2310	2460
		with 1220 mm load backrest	h2 mm	145			710	860	1015	1165	1320	1470	1625	1775
4.4	Lift Height		h3 mm	3200	3505	3810	2895	3200	3505	3810	4110	4415	4670	4975
4.5	Mast	extended height, w.o. lbr.	h4 mm	3785	4090	4395	3430	3735	4040	4345	4650	4955	5210	5515
		extended height, with 1220 mm lbr.	h4 mm	4445	4750	5055	4145	4445	4750	5055	5360	5665	5920	6225
	Interlock	fork height	mm	1980			1520	2435			2130	2285	2435	2590

				TT						
4.1	Mast Tilt	forward / backward	°	5 / 5						
4.2	Mast	collapsed height	h1 mm	2110	2265	2415	2570	2720	2875	3025
4.3	Free Lift	without load backrest	h2 mm	1600	1750	1905	2055	2205	2360	2510
		with 1220 mm load backrest	h2 mm	1165	1015	1165	1320	1470	1625	1775
4.4	Lift Height		h3 mm	4775	5230	5485	5865	6245	6550	7010
4.5	Mast	extended height, w.o. lbr.	h4 mm	5285	5745	5995	6380	6760	7065	7520
		extended height, with 1220 mm lbr.	h4 mm	6020	6480	6735	7115	7495	7800	8255
	Interlock	fork height	mm	2385			2285	2435	2590	2740

Table 2 – Mast C-5 1000-2.0 / C-5 1000-2.5

				Quad			
4.1	Mast Tilt	forward / backward	°	5 / 3			
4.2	Mast	collapsed height	h1 mm	2110	2265	2415	2570
4.3	Free Lift	without load backrest	h2 mm	1520	1675	1825	1980
		with 1220 mm load backrest	h2 mm	860	1015	1165	1320
4.4	Lift Height		h3 mm	6095	6550	7010	7465
4.5	Mast	extended height, w.o. lbr.	h4 mm	6655	7115	7570	8030
		extended height, with 1220 mm lbr.	h4 mm	7345	7800	8255	8715
	Interlock	fork height	mm	1750	1905	2055	2205

Table 3 – Mast C-5 1000-3.0

				TL			TF						
4.1	Mast Tilt	forward / backward	°	5 / 5			5 / 5						
4.2	Mast	collapsed height	h1 mm	2110	2265	2415	1960	2110	2265	2415	2570	2720	2875
4.3	Free Lift	without load backrest	h2 mm	145			1270	1420	1570	1725	1875	2030	2180
		with 1220 mm load backrest	h2 mm	145			710	860	1015	1165	1320	1470	1625
4.4	Lift Height		h3 mm	2920	3200	3530	2665	2970	3275	3580	3885	4190	4445
4.5	Mast	extended height, w.o. lbr.	h4 mm	3610	3890	4220	3355	3660	3965	4270	4575	4880	5135
		extended height, with 1220 mm lbr.	h4 mm	4170	4445	4780	3915	4220	4525	4830	5135	5440	5690
	Interlock	fork height	mm	1980			1445	2360			2055	2205	2360

				TT					
4.1	Mast Tilt	forward / backward	°	5 / 5					
4.2	Mast	collapsed height	h1 mm	2110	2265	2415	2570	2720	2875
4.3	Free Lift	without load backrest	h2 mm	1420	1570	1725	1875	2030	2180
		with 1220 mm load backrest	h2 mm	860	1015	1165	1320	1470	1625
4.4	Lift Height		h3 mm	4340	4800	5050	5435	5815	6120
4.5	Mast	extended height, w.o. lbr.	h4 mm	5030	5490	5745	6125	6505	6810
		extended height, with 1220 mm lbr.	mm	5590	6050	6300	6685	7065	7370
	Interlock	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. Industrial Dual 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. Fold down LP bottle bracket
8. Three pedal control with separate inching/brake
9. 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
10. 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
 - Spinner knob with grips
 - Large uncluttered floorboard
11. 990 mm forks
12. 1120 mm wide fork carriage with upper thrust rollers
13. High visibility mast with in-line hose routing
14. Hour meter/event memory
15. No tool lift out floor boards
16. Three spool valve
17. O-ring face seal hydraulic fittings
18. Colour-coded wiring
19. 12-volt alternator
20. Drum brakes are standard on 2.0 and 2.5 ton trucks
21. Crown Power Brakes are standard on 3.0 ton trucks
22. Isomounted heavy duty steer axle with grease zerks
23. Single element air cleaner
24. Severe duty wet cell battery
25. e-Smart™; Low LPG fuel level indicator
26. Air filter restriction indicator
27. Tow pin
28. Horn
29. Radiator Grill
30. 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, 990, 1015, 1100, 1145, 1220, 1370 and 1525 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 (760, 915, 1020, 1065, 1220 and 1525 mm)
11. Accessory hydraulics, integrated sideshifter 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 directions
18. Floor Spotlight, blue
19. Non-marking, smooth or lug rubber tyres
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
 - Storage compartment
26. Two pedal control with combination inching/brake
 27. Radiator screen
 28. Air intake pre-cleaner
 29. Belly pan
 30. Positive/Negative accessory cable
 31. InfoLink ready
 32. Counterweight Grill
 33. Mirrors – Plastic or Glass
 34. 1345 mm wide carriage
 35. Seltbelt Interlock, orange

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. The steer axle articulates in a rubber isolation bushing to improve truck handling and ride.

Electrical System

The C-5 Series comes with a standard several duty battery. The severe duty provides 510 cold cranking amps. 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.