



Volvo Construction Equipment

G930C, G940C, G946C, G960C

VOLVO MOTOR GRADERS 16.1 - 18.1 t 162-205 kW



Control in comfort.

The industry-leading Volvo ROPS/FOPS cab has been designed with the operator in mind – providing a spacious, safe and comfortable environment that enables optimized productivity. With all-around visibility, ergonomically placed controls, excellent noise insulation and a powerful heating and air conditioning system, step inside and see the difference this premium working environment will make to your performance.

Priority steering wheel

In terms of machine direction, the steering wheel has priority and can override the joystick system. This allows the operator to quickly correct the steering – providing increased safety and control.



Contronics

Volvo Contronics continuously monitor and record machine operation and performance in real-time. This information is relayed to the operator in the cab. Integrated with Volvo's MATRIS tracking system, Contronics facilitates ease of operation by providing the operator with all the necessary information and diagnostics for optimal performance.

Touch screen

For ease of operation, the operator can create user profiles and customize the joystick system to meet their specific needs via the touch screen. As well as being able to select which buttons and rollers control specific functions, the screen also displays diagnostic information.



Stop-at-center articulation

The joystick system features a built in stop-at-center articulation feature which uses sensors to accurately return the motor grader's articulation to the center. For ease of operation, the operator simply presses a roller to perform this task.



Joystick

The optional Volvo joystick controls simplify machine operation by providing proportional response for hydraulic functions, articulation, steering and attachment performance. The ergonomic design of the easy-to-operate-system increases operator comfort and reduces fatigue.



Circle, moldboard and drawbar.

The powerful and durable design of the circle, moldboard and drawbar system allows the operator to place and maintain the blade exactly where it's needed – even in the toughest ground conditions.

Built strong.

Volvo motor graders have been built to last. The heavy-duty design provides a stable grading platform in the toughest applications. Whether you're operating in gravel, heavy clay or any other material, these durable machines have been built to maintain peak operation whatever the task at hand.

Duramide™ bearings.

Volvo's long-lasting, self-lubricating upper circle support bearings are made with Duramide™. The heavy-duty material lasts for 5 000 hours before replacement is needed and has been designed exclusively for Volvo motor graders.



Heavy-duty circle support.

The heavy duty moldboard circle is powered by Volvo's unique twin pinion drive and supported by over 700 square inches of Duramide bearing. The design gives the operator the ability to turn the blade under heavy loads

Bolted and offset drawbar.

For precise grading results, the smart design of the Volvo drawbar system ensures that the moldboard stays parallel to the ground when rotating. The ball stud is offset and bolts to the drawbar – accommodating changes to tire size or cutting edges and ensuring that no cutting or welding is required during servicing.



Circle turn system.

The exterior teeth provide a large rotation circle enabling the system to develop higher torque. This allows the operator to move and hold the blade under heavier loads. Exterior mounted gear teeth eliminate the possibility of material build-up and tooth damage.

Designed for precision.

The Volvo C-series motor graders have been designed with precision in mind. Whether you're working in a fine grading application or earthmoving, these machines will efficiently spread and shape material with precise control to increase your productivity.

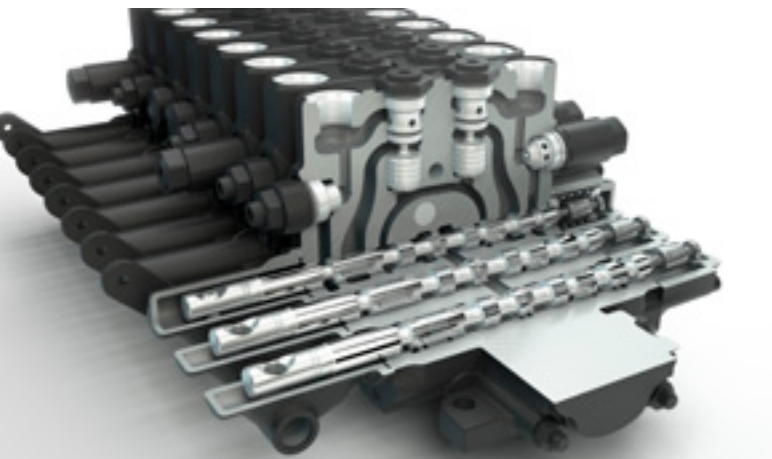
Creep Mode.

The all-wheel drive system includes Creep Mode which provides ultimate precision at low speeds by using the hydrostatically-powered front wheel drive only. This mode is useful in fine grading applications as the rear tandem wheels roll freely behind the grader – preventing damage to the freshly graded surface.



Technology ready kit.

Volvo engineers have worked with the world's leading suppliers of grade control systems to develop a common interface and installation package. This option allows joystick-equipped machines to easily be fitted with a third-party grade control system – increasing productivity and precision in fine grading applications.



Custom designed spools and load-sensing hydraulics.

The load-sensing hydraulic system balances flow to all grading functions. It is optimized through the use of custom designed spools in the main control valve – permitting precise blade control, fast response and smooth operation at all speeds.



Moldboard slide bearing.

The new design of the heavy-duty moldboard slide bearing holds the blade steady – even at full extension. The system facilitates precise results in fine grading applications.



Precise blade control.

For the best possible ground finish, the hydraulic system accurately maneuvers the blade to the correct position and maintains superior precision for enhanced productivity.



Transmission.

The redesigned Volvo transmission has been purpose built specifically for Volvo motor graders – ensuring optimum performance and high productivity. Select either 8 forward and 4 reverse gears or, for the most efficient operation, 11 forward and 6 reverse gears.

Drive your productivity up.

With state-of-the-art technology and a redesigned, industry-leading transmission, Volvo C-Series motor graders deliver high productivity with maximum performance. Whether you're working in low-speed fine grading applications or high-speed snow plowing, the 11-speed transmission is the perfect choice for optimal operation. Experience smooth shifts and increased productivity with Volvo.

Unrestricted shuttle shift.

For effortless control and increased productivity, the operator can quickly change between any forward and reverse gear without using the brakes or inching pedal. Simply pre-program the unrestricted shuttle shift to go from one gear to another when the gearstick is moved forward or backwards.



Anti-stall.

The V-ECU prevents the operator from stalling the engine by automatically shifting the transmission into neutral if there is a risk of stalling. To re-engage the transmission, the operator simply presses and releases the inching pedal.



Smooth shifting gears.

The redesigned transmission has improved cooling capacity and is automatically calibrated by the V-ECU for smooth gear shifting and improved productivity.

Three shift modes.

For optimized productivity there are two pre-programmable automatic gear shifting modes – travel and automatic – as well as a manual shift mode. By simply pressing a button, travel mode is programmed to upshift through the gears quickly to reach maximum speed while automatic mode delivers maximum power when grading.



11-speed transmission.

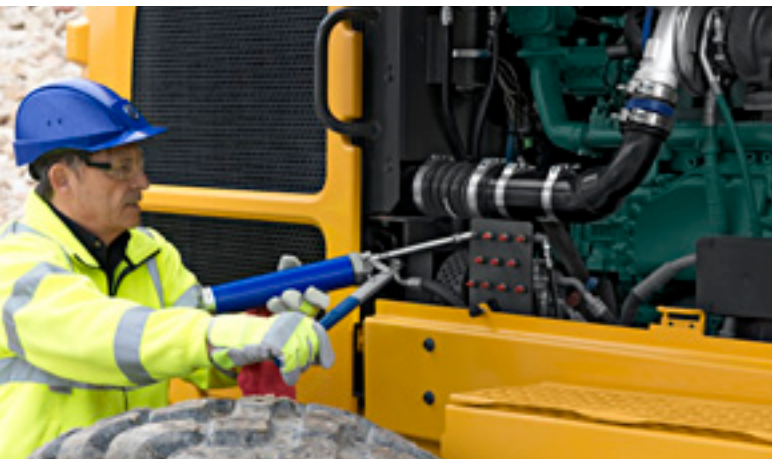
Volvo's redesigned, unique 11-speed transmission is equipped with 11 forward and 6 reverse gears – providing more gears in both the work and travel range. With an increased and industry-leading number of gears, the operator can select the most fuel efficient gear for the task at hand.

Superior service access.

At Volvo, we want you to get the most out of your machine every day. That's why we've made maintenance simple and built serviceability in to the C-Series motor graders. With tool-less ground level service access, regular checks will be carried out quickly and you'll experience new levels of uptime.

Ground level access.

For safe and easy access, all fuel filling and service check points are accessible from ground level.



Reversible cooling fan.

The hydraulically-driven, electronically controlled cooling fan regulates the temperature of the vital components. It automatically activates only when it's needed – reducing fuel consumption and noise. The optional reversible functionality – which blows air in the opposite direction – allows for self-cleaning of the cooling units.



Fluid checks.

For easy maintenance, all hydraulic components are equipped with visual sight checks or electronic sensors which allow levels to be checked from the cab.



Engine Compartment Light.

For more visibility and increased safety, the engine compartment light is compact and powerful. The heavy duty lamp is equipped with four bulbs and covers a wide angled scope for excellent visual coverage. It allows the operator to direct light anywhere required in and around the engine compartment.



Lifetime frame warranty.

For increased peace of mind, Volvo offers an optional, initial user, lifetime warranty on the front and rear frame.



Tool-less service access.

For quick and easy service checks, tools are not needed to access Volvo motor grader daily service points. Fluid levels can be checked visually or electronically from the operator's seat and cab air filters are serviced outside from ground level.

The perfect match.

Increase your versatility and effectively perform a variety of tasks with a Volvo motor grader and Volvo attachments. Whether you're ripping, scarifying or blading, optimize your performance with the right attachment for the job. Maximize your productivity and profitability and get the most out of your machine with Volvo.



Perfectly matched attachments.

Volvo's wide range of durable attachments have been purpose-built as an integrated part of the motor grader for which they're intended – forming one solid, reliable unit. With functions and performance ideally matched, you'll experience precise control and superior productivity.

Dozer blade.

The front-mounted dozer blade moves material including gravel piles and rock, removes small stumps and can be used on a range of jobs where access with the grader moldboard could be difficult. The robust design provides excellent visibility over and around the dozer blade for ease of operation and maximum efficiency.





Rear ripper/scarifier.

This rear frame mounted tool can easily rip-up or scarify hard packed materials, asphalt and ice as well as remove rocks and tree roots and loosen packed road surfaces. It is equipped with the Volvo Tooth System and shanks and can hold up to five ripper teeth or nine scarifier teeth.



Mid mounted scarifier.

Mounted behind the front axle and designed to break-up compact material and facilitate grading, the mid mount scarifier design ensures optimum cutting capability and excellent attachment visibility.



Front mounted scarifier.

Mounted to the grader's nose plate, the front mounted scarifier is designed to break-up compact material, asphalt and rocky subgrade. The design simplifies scarifying operations against curbs, walls and other obstacles.

Maximum power, performance and reliability.

Technology ready kit.

This option allows joystick-equipped machines to easily be fitted with a third-party grade control system – increasing productivity and facilitating precision in fine grading applications.

Purpose built frames.

There are five distinct frame designs built for Volvo motor graders. For optimized performance, each frame is tailored to match the weight and horsepower of the machine.



Circle, moldboard and drawbar.

The powerful and durable design of the circle, moldboard and drawbar system allows the operator to place and maintain the blade exactly where it's needed.

All-wheel drive.

In all-wheel drive mode, Volvo motor graders reach top speeds of 37kph – ideal for snow removal and other high speed applications.



Precise blade control.

For the best possible ground finish, the hydraulic system accurately maneuvers the blade to the correct position and maintains superior precision for enhanced productivity.



Joystick.

The optional Volvo joystick controls simplify machine operation by providing proportional response for hydraulic functions, articulation, steering and attachment performance.



Transmission.

The redesigned Volvo transmission has been purpose built specifically for Volvo motor graders – ensuring optimum performance and high productivity.





Volvo engine.

Featuring proven, advanced technology, Volvo's powerful Tier 4 Final/Stage IV engine delivers the ultimate combination of high performance and low fuel consumption.

AdBlue®.

Volvo offers a total AdBlue solution that is quality assured, cost efficient and easily accessible. Contact your Volvo dealer for more information.

Centralized fill points and eco drains.

For quick and easy service access, fluid filling points are centralized at ground level. To avoid spillage, most drainage points have quick coupler-type drain valves.

Attachments.

Volvo's durable attachments have been purpose-built to deliver maximum productivity and long service life in combination with Volvo machines.



Tool-less service access.

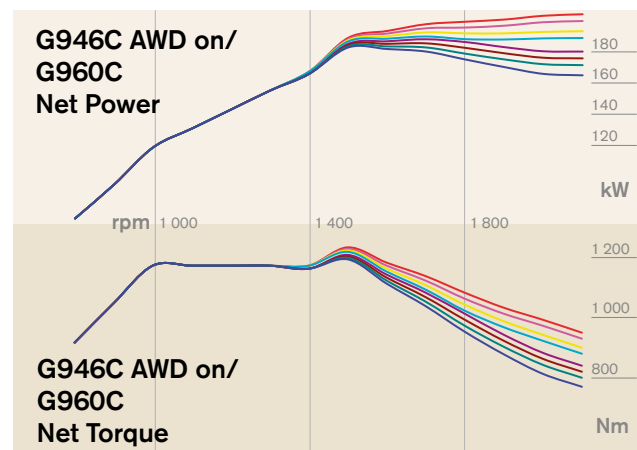
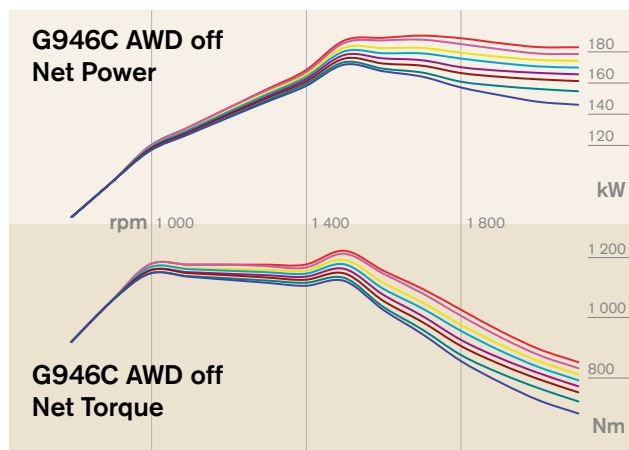
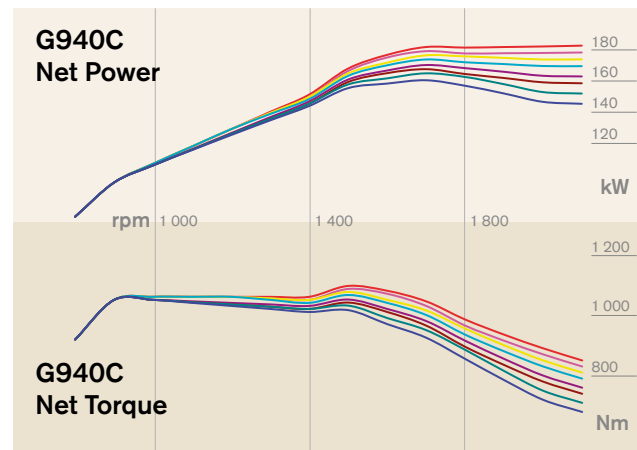
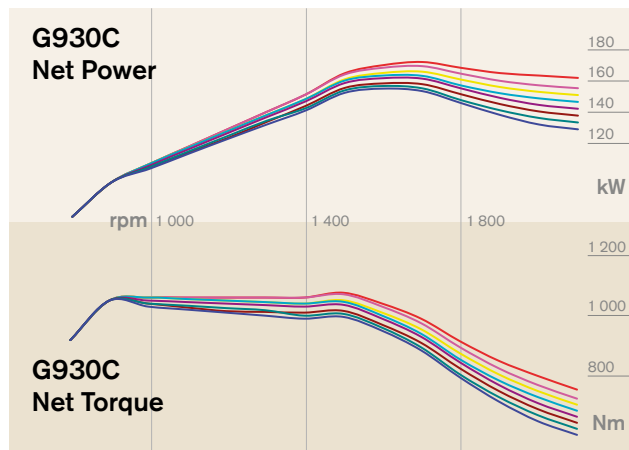
For quick and easy service checks, tools are not needed to access Volvo motor grader daily service points.

Hydraulic brake system.

The dedicated hydraulic brake circuit ensures minimal pedal effort is required to achieve the desired braking force – improving stopping power.

Volvo G930C, G940C, G946C, G960C in detail.

		G930C	G940C	G946C	G960C
Base operating weight*					
Base - Total	kg	16 066	16 977	17 469	18 069
On front wheels	kg	4 468	4 643	4 924	5 001
On rear wheels	kg	11 598	12 334	12 545	13 068
Typical operating weight**					
Typical - Total	kg	19 250	20 160	20 570	21 252
On front wheels	kg	4 968	5 144	5 409	5 502
On rear wheels	kg	14 282	15 016	15 161	15 750
Maximum operating weight					
Maximum - Total	kg	24 325	24 325	24 325	24 325
Note that adding weight and attachments to the base grader may necessitate a tire upgrade as maximum weight capacity of tire may be exceeded.					
Productivity					
Blade pull at Base Operating Weight	kg	10 438	11 100	15 145	11 761
Blade pull at Typical Operating Weight	kg	12 854	13 515	17 500	14 175
Blade Down Force at Base Operating Weight***	kg	7 783	8 033	8 519	8 652
Blade down force at Typical Operating Weight***	kg	8 641	8 884	9 343	9 502
Engine data					
Model		Volvo D8J	Volvo D8J	Volvo D8J	Volvo D8J
		Turbocharged, aftercooled with replaceable wet-type cylinder liners			
No. of cylinders	in line	6	6	6	6
Bore & stroke	mm	110 x 136	110 x 136	110 x 136	110 x 136
Displacement	l	7.8	7.8	7.8	7.8
Torque Rise	%	72	53	67	55
- Low	%	53	40	54	41
- Medium	%	43	29	43	30
- High	%				
Engine exhaust emission standards certified to EU Stage IV					
Electrical system					
Alternator	volt	24	24	24	24
	amp	120	120	120	120
Batteries (two 12 volt) maintenance free, heavy duty CCA (RC)1570 CCA (240 RC) batteries available optionally.					
		760 (170)	760 (170)	1125 (195)	760 (170)
*approximate weights shown include enclosed low profile cab with ROPS, all operating fluids, operator and standard equipment.					
**typically equipped operating weight is calculated with push block, rear ripper, 17.5 tires with single-piece (SP) rims, heavy duty circle support, 14' moldboard, full fuel tank, and standard operator.					
***Blade down force is the maximum downward force which may be applied at the cutting edge.					



		G930C	G940C	G946C AWD off	G960C/G946C AWD on
3 range power control (8 speed transmission)					
Base range power - (F1-F2)					
Net engine power	kW	129	146	146	166
Net peak torque	Nm	1 010	1 012	1 107	1 171
Mid range power - (F3 - F5)					
Net engine power	kW	147	163	163	186
Net peak torque	Nm	1 022	1 036	1 146	1 186
High range power - (F6 - F8)					
Net engine power	kW	162	183	183	205
Net peak torque	Nm	1 051	1 071	1 196	1 211
8 range power control (11 speed transmission)					
Power Range for F1-F4					
Net engine power	kW	129	146	146	166
Net peak torque	Nm	1 008	1 012	1 107	1 171
Power Range for F5					
Net engine power	kW	133	152	155	172
Net peak torque	Nm	1 008	1 012	1 107	1 176
Power Range for F6					
Net engine power	kW	138	159	161	177
Net peak torque	Nm	1 008	1 016	1 121	1 181
Power Range for F7					
Net engine power	kW	142	163	166	181
Net peak torque	Nm	1 012	1 026	1 136	1 186
Power Range for F8					
Net engine power	kW	147	170	170	190
Net peak torque	Nm	1 022	1 041	1 151	1 196
Power Range for F9					
Net engine power	kW	151	174	175	194
Net peak torque	Nm	1 026	1 051	1 166	1 201
Power Range for F10					
Net engine power	kW	155	179	179	201
Net peak torque	Nm	1 046	1 061	1 186	1 206
Power Range for F11					
Net engine power	kW	162	183	183	205
Net peak torque	Nm	1 051	1 071	1 196	1 211
Rated net horsepower SAE J1349/ISO 9249					

Transmission

Fully sequential, direct drive, Volvo powershift transmission. Engine cannot be started if transmission is in gear. Single lever electronic transmission controller provides self-diagnostics and overspeed protection. Optional HTE1160S has automatic shifting and travel mode as standard equipment.
Approximate values - ground speeds may vary based upon tire brand and size.

Transmission	HTE840S 8-Speed		HTE1160S 11-Speed		
	14:00	17.5	14:00	17.5	17.5
Tire Size	km/h	km/h	Gear @ RPM	km/h	km/h
F1 @ 2 100	4.1	4.1	F1 @ 2 100	3.2	3.2
F2 @ 2 100	5.8	5.7	F2 @ 2 100	4.2	4.1
F3 @ 2 100	8.1	8.0	F3 @ 2 100	5.6	5.5
F4 @ 2 100	11.3	11.1	F4 @ 2 100	7.2	7.1
F5 @ 2 100	16.0	15.8	F5 @ 2 100	9.4	9.3
F6 @ 2 100	22.4	22.1	F6 @ 2 100	12.2	12.2
F7 @ 2 100	31.4	31.0	F7 @ 2 100	16.2	16.0
F8 @ 2 100	43.8	43.3	F8 @ 2 100	21.6	21.4
			F9 @ 2 100	28.1	27.7
			F10 @ 2 100	36.8	36.5
			F11 @ 2 100	47.6	47.0
R1 @ 2 100	4.1	4.0	R1 @ 2 100	3.2	3.1
R2 @ 2 100	7.9	7.8	R2 @ 2 100	5.5	5.4
R3 @ 2 100	15.8	15.6	R3 @ 2 100	9.3	9.2
R4 @ 2 100	30.9	30.5	R4 @ 2 100	12.3	12.2
			R5 @ 2 100	21.3	21.0
			R6 @ 2 100	36.2	35.7

Transmission gear					
Engine Power Range	Volvo HTE840S		Volvo HTE1160S		
Base Range	F1, F2	R1	1st Range	F1-F4	R1
Mid Range	F3- F5	R2, R3	2nd Range	F5	R2
High Range	F6 - F8	R4	3rd Range	F6	R3
			4th Range	F7	R4
			5th Range	F8	R5
			6th Range	F9	R6
			7th Range	F10	
			8th Range	F11	

Note: For additional fuel savings, the RPM's can be capped at 1 900 rpm in gears F1-F5 (11 spd) and F1-F2 (8 spd) through VCADS

Specifications.

		G930C	G940C	G946C	G960C
Tandems					
Depth	mm	226.5	226.5	226.5	226.5
Height	mm	616	616	616	616
Thickness	inner wall	mm	25	25	25
	outer wall	mm	20	20	20
Center distance	mm	1 550	1 550	1 550	1 550
Drive chain pitch	mm	51	51	51	51
Oscillation	° ±	15	15	15	15
Differential / final drive					
Model	Volvo		APR70		
Type	Planetary final reduction with an operator controlled wet multiple disc lock/unlock differential				
Wheels & tires (Standard equipment)					
Tire size		14:00 x 24, G-2	14:00 x 24, G-2	14:00 x 24, G-2	14:00 x 24, G-2
Ply rating (PR)		12	12	12	12
Rim size	mm	223	223	254	254
One piece rim		•	•		•
Three piece rim				•	
Bolt-on rims interchangeable between front and rear		Yes	Yes	No	Yes
Front axle and articulation					
Wheel lean	° R & L	18	18	18	18
Oscillation	° up & down	16	16	16	16
Ground clearance	mm	610	610	610	610
Minimum turning radius using front axle steering, articulation, wheel lean and unlocked differential	mm	7 265	7 265	7 265	7 265
Steering arc	°	50	50	50	50
Frame articulation angle	°	23	23	23	23
Anti-drift lock valve ensures stable operation.					
Articulation lock standard.					
Hydrostatic power steering of front wheels incorporating two steering cylinders. Meets SAE J1511 FEB. 94, ISO 5010:1992, EN12643:1997 with optional secondary steering					
Brakes					
Service Brakes: Foot operated					
Fade resistant, hydraulically actuated, wet multiple disc service brakes located at the 4 tandem drive wheels are fully sealed and maintenance free					
System features crossover dual braking circuits for uniform braking on both sides of the grader. Includes reserve power assist and operator warning system (visual and audible)					
Parking Brake: Spring applied hydraulically released enclosed wet multiple disc type parking brake in final drive. Effective on all 4 tandem drive wheels.					
Transmission cannot be engaged with park brake on					
Braking systems comply to SAE J/EN ISO 3450:1996					
Volvo uses asbestos free brake components.					

		G930C	G940C	G946C	G960C
Front frame					
Minimum dimensions of box section	mm	265 x 340	265 x 340	265 x 340	265 x 340
Plate thickness sides, top & bottom	mm	20	20	20	20
Vertical section modulus at arch	cm ³	1 950	1 950	1 950	1 950
minimum	cm ³	1 663	1 663	1 663	1 663
maximum	cm ³	3 474	3 474	3 474	3 474
Rear frame - full perimeter type					
Minimum dimensions of side rail	mm	254 x 100	254 x 100	254 x 100	254 x 100
Side plate thickness	mm	9.6	12.7	12.7	25
Moldboard					
Standard moldboard with replaceable end bits	mm	22 x 635 x 3 658	22 x 635 x 3 658	22 x 635 x 3 658	22 x 635 x 3 658
Moldboard material		SAE 1050 high carbon steel			
Edge: through hardened boron steel	mm	152 x 16	152 x 16	152 x 16	152 x 16
Bolt spacing	mm	152	152	152	152
Bolt size	mm	16	16	16	16
Slide rails supported by Duramide™ bearings		YES	YES	YES	YES
Moldboard range: moveable blade control system (dimensions shown with standard 14:00 tires and moldboard)					
		Left/Right	Left/Right	Left/Right	Left/Right
Reach outside tires - articulated frame	mm	3 048/3 035	3 048/3 035	3 048/3 035	3 048/3 035
Reach outside tires - straight frame	mm	2 020/2 010	2 020/2 010	2 020/2 010	2 020/2 010
Moldboard slide left - right	mm	673/673	673/673	673/673	673/673
Circle side shift left - right	mm	775/749	775/749	775/749	775/749
Maximum bank sloping angle, left - right	°	90/90	90/90	90/90	90/90
7 Position Blade Control system linkage		YES	YES	YES	YES
Moldboard ground clearance	mm	445	445	445	445
Moldboard cutting depth	mm	790	790	790	790
Moldboard tilt range	° forward	47	47	45	45
	° back	5	6	6	6
Superior moldboard mobility permits steep ditch cutting angles and back sloping outside overall machine width					

Specifications.

		G930C	G940C	G946C	G960C
Circle					
Pitch diameter	mm	1 626	1 626	1 626	1 626
Thickness	mm	32	32	32	32
Adjustable circle wear plates - standard / optional		3 / 5	3 / 5	3 / 5	3 / 5
Duramide™ wear plates prevents metal-to-metal contact and provides maximum service life.					
Circle drive					
The Volvo dual gear Circle Drive System uses direct acting hydraulic power for exceptional turning and holding capability under full load. Circle Drive System uses two hardened drive pinions and is protected against impact damage by an overload relief valve as standard equipment.					
Rotation	°	360	360	360	360
Drawbar					
Dimensions of box section	mm	165 x 165	165 x 165	165 x 165	165 x 165
Plate thickness	mm	25 & 19	25 & 19	25 & 19	25 & 19
Cab & controls					
High profile cab with ROPS/FOPS Interior height	mm	1 855	1 855	1 855	1 855
Low profile cab with ROPS/FOPS Interior height	mm	1 620	1 620	1 620	1 620
All Volvo Grader cabs and canopies are designed to meet or exceed EN/ISO 3471:2008 and EN/ISO 3449:2008 Level 2 FOPS requirements					
The retractable seatbelt is 76 mm (3") wide and meets SAE J386 NOV. 97 and EN ISO 6683:1999. Industry standardized control lever arrangement					
Interior operator noise levels average 72 dB(A) per ISO 6394:1998 (enclosed cab)					
Hydraulics					
Circuit type		Closed center, load sense Proportional Demand Flow (PDF) Hydraulic System, with O-ring face seal hose connections.			
Main hydraulic pump type		Axial piston type			
Maximum pressure	bar	207	207	207	207
Output at 2100 rpm	l/min	208	208	208	208
Stand by pressure	bar	24	24	24	24
Aux Flow	l/min	76			
Hydraulic fan drive pump					
Type		Separate axial piston pump dedicated to the variable speed cooling fan.			
Capacities					
Fuel tank	l	340	390	390	390
Transmission	l	61	61	61	61
Final drive	l	22.7	22.7	22.7	22.7
Tandems (each)	l	100	100	100	100
Hydraulic oil tank	l	91	91	144	91
Coolant antifreeze protection to -50° C (-58° F) approx	l	37.8	37.8	41.6	41.6
Engine oil	l	21.5	21.5	21.5	21.5
DEF/AdBlue	l	31	31	31	31

		G930C	G940C	G946C	G960C
Attachments (optional unless otherwise stated as standard equipment)					
Push Block	kg	515	515	515	515
Ripper incl. rear frame arch support and links	kg	1 515	1 515	1 515	1 515
- Width of cut	mm	2 240	2 240	2 240	2 240
- Number of scarifier teeth	up to			9	
- Max. scarifying depth		295	295	295	295
- Number of ripper teeth	up to			5	
- Max. ripping depth	mm	440	440	440	440
Mid Mount Scarifier	kg	905	905	905	905
- Width of cut	mm	1 328	1 328	1 328	1 328
- Number of teeth	up to	11			
- Penetration	mm	300	300	300	300
Front Mount Scarifier	kg	715	715	715	715
- Width of cut	mm	1 248	1 248	1 248	1 248
- Number of teeth	up to			11	
- Penetration	mm	260	260	260	260
Dozer 2.4 m (8')	kg	1 080	1 080	1 080	1 080
- Width	m	2.44	2.44	2.44	2.44
Dozer 2.7 m (9')	kg	1 140	1 140	1 140	1 140
- Width	m	2.74	2.74	2.74	2.74

All wheel drive

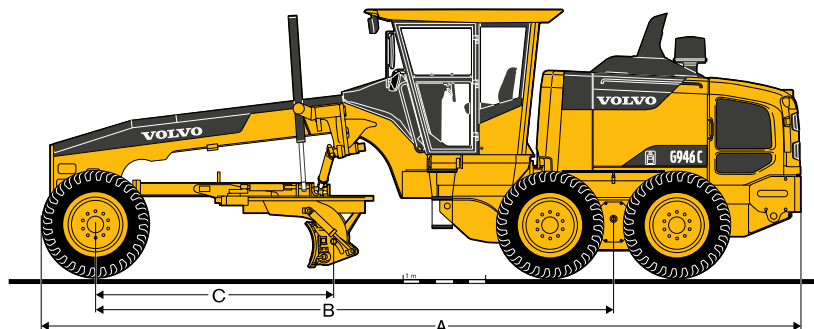
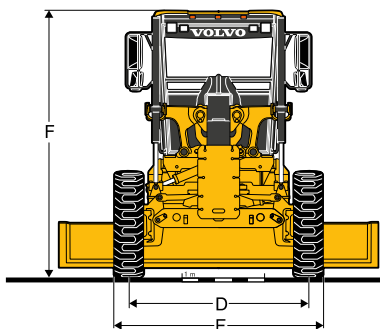
Maximum operating pressure	bar	-	-	345	-
Minimum operating pressure	bar	-	-	34	-
Top speed with AWD engaged (Approx.)	km/h	-	-	30	-
Maximum rim pull	kg	-	-	3 855	-

When equipped with the HTE840S transmission, the Volvo high torque All Wheel Drive System operates in forward gears 1-7 and reverse gears 1-4.

When equipped with the HTE1160S transmission, the Volvo high torque All Wheel Drive System operates in forward gears 1-10 and reverse gears 1-6.

System provides the operator with the ability to fine grade in Creep Mode using only hydrostatic front wheel drive, between 0 - 4 km/h (0 - 2.5 mph).

Dimensions (all dimensions are approximate)			G930C	G940C	G946C	G960C	
A	Overall length	mm	8 930	9 150	9 150	9 150	
B	Wheelbase	mm	6 280	6 280	6 280	6 280	
C	Bladebase per ISO 7134	mm	2 675	2 650	2 650	2 650	
D	Width - front tire center lines	mm	2 076	2 076	2 076	2 076	
E	Width - outside tires	14:00 STD	mm	2 537	2 537	2 537	2 537
		17.5	mm	2 717	2 717	2 717	2 717
F	Overall height with low profile cab, add 217 mm (8.5") for full height cab	mm	3 225	3 225	3 225	3 225	



Equipments.

STANDARD EQUIPMENT

	G930C	G940C	G946C	G960C
Safety				
Dual brake crossover circuit and reserve power assist	•	•	•	•
ROPS/ FOPS protected cab	•	•	•	•
Hazard lights	•	•	•	•
Horn	•	•	•	•
Left and right outside dual rear view mirrors	•	•	•	•
Retractable 3-inch safety belt	•	•	•	•
Front windshield wiper and washer	•	•	•	•
Handrails on steps and platforms	•	•	•	•
Comfort				
Independently adjustable pedestal and steering wheel with controls	•	•	•	•
Cab heater - 50,000 BTU with cab pressurizer and replaceable filters, 10 outlets	•	•	•	•
Overhead console for radio	•	•	•	•
Tinted glass	•	•	•	•
Cup holder / Tray for small items or lunch box	•	•	•	•
Ashtray	•	•	•	•
Space for lunch cooler	•	•	•	•
Overhead storage compartment	•	•	•	•
Engine				
Direct injected, electronically controlled	•	•	•	•
Turbocharged, intercooled	•	•	•	•
Remote oil drain	•	•	•	•
Cold start preheater	•	•	•	•
Electrical system				
Cab mounted headlights with dimmer switch (N/A on CE units)	•	•	•	•
Backup alarm 112 dB(A)	•	•	•	•
2 880 watt (120 amp) alternator	•	•	•	•
Battery disconnect switch	•	•	•	•
24 V socket	•	•	•	•
Lights				
Headlights	•	•	•	•
Parking lights	•	•	•	•
Direction indicators	•	•	•	•
Rear lights	•	•	•	•
Back-up lights	•	•	•	•
Brake lights	•	•	•	•

	G930C	G940C	G946C	G960C
Operator information interface				
Gauges for coolant temperature, urea level, and fuel level	•	•	•	•
Speedometer	•	•	•	•
Tachometer	•	•	•	•
Warning lights grouped and easy to read				
Central warning (3 levels) for all vital functions	•	•	•	•
Centrally positioned information display	•	•	•	•
Automatic pre-start checks	•	•	•	•
Troubleshooting diagnostics	•	•	•	•
Hour meter	•	•	•	•
Clock	•	•	•	•
Drivetrain				
Rear axle, operator controlled, lock/unlock differential with planetary final reduction	•	•	•	•
Electronic hand throttle with RPM hold and resume functions	•	•	•	•
Direct drive, power shift Volvo HTE840S transmission with 8 forward and 4 reverse gears	•	•	•	•
Single transmission control lever	•	•	•	•
Electronic over speed protection	•	•	•	•
Advanced memory shift	•	•	•	•
Hinged transmission guard	•	•	•	•
Direct Forward to Reverse shuttle shift capability without using the Inching pedal	•	•	•	•
Brakes				
4 wheel wet disc braking system with crossover dual circuits and reserve power assist	•	•	•	•
Spring applied wet multiple disc park brake with operator warning alarm and indicator	•	•	•	•
Other				
Tool box	•	•	•	•

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice.

OPTIONAL EQUIPMENT

	G930C	G940C	G946C	G960C
Comfort				
Rear view camera (standard with CE specs)	•	•	•	•
Sliding side windows	•	•	•	•
Opening front lower windows	•	•	•	•
Sun visor	•	•	•	•
Adjustable air suspended seat	•	•	•	•
Air conditioner - 35 000 BTU HFC-134a (non-CFC refrigerant) with cab heater	•	•	•	•
Drivetrain				
Autoshift transmission	•	•	•	•
Volvo HTE1160S Transmission - 11 speeds forward 6 speeds reverse - includes Autoshift	•	•	•	•
Reversible cooling fan - manual or automatic modes	•	•	•	•
Electrical System				
LED light options	•	•	•	•
Moldboards work lights - 2 or 4	•	•	•	•
Rear work lights - 2 or 4	•	•	•	•
Corner cab work lights - left or right - 2	•	•	•	•
Rear and front lower windows wipers/washers	•	•	•	•
Intermittent function for all specified wipers	•	•	•	•
24 volt to 12 volt converter - 600 or 1440 watt (30 or 60 amp)	•	•	•	•

	G930C	G940C	G946C	G960C
Productivity				
Heavy duty circle support system	•	•	•	•
Metallic lower moldboard slide bearing	•	•	•	•
Belly protection plate	•	•	•	•
Front fenders/lean and steer with front wheels - plastic	•	•	•	•
Rear fenders - oscillate with tandem	•	•	•	•
Tires 17.5 x 25	•	•	•	•
Moldboard 3962 x 635 x 22 mm (13' x 25" x 7/8")	•	•	•	•
Moldboard 4267 x 635 x 22 mm (14' x 25" x 7/8")	•	•	•	•
Hydraulics and controls				
Joystick controls with steering wheel	•	•	•	•
Blade Lift Float Control	•	•	•	•
Front attachment float control	•	•	•	•
Up to 7 additional hydraulic circuits for attachments	•	•	•	•
Secondary steering (power assisted) - standard with CE specs	•	•	•	•
Radio with CD player	•	•	•	•
Other				
First user lifetime frame warranty - includes articulation pins and bearings	•	•	•	•
Low ambient fluids for extreme cold conditions below -10° C (-14° F)	•	•	•	•
Sound reduction packages (Standard with CE kit)	•	•	•	•
Front and Rear licence plate brackets	•	•	•	•
Air compressor - engine driven with tank capable of operating hand tools	•	•	•	•
Volvo CareTrack - remote monitoring system	•	•	•	•

SELECTION OF VOLVO OPTIONAL EQUIPMENT

LED lights



Auto idle shutdown



Engine compartment light



Tyres



Moldboards



High or low cab



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