



Construction Equipment

Press Information

Volvo CE announces an entirely new motor grader range, the G900 family

Adopting a 'clean sheet' approach, the seven model G900 range of motor graders combines higher productivity with increased user friendliness in a quality Volvo package.

It takes a confident company to design a whole new product family from scratch when its existing range is regarded by many as class leader. But that is exactly what Volvo CE has done with its new G900 range of motor graders. Built on two distinct but integrated platforms, there are seven models in the range, including two all wheel drive machines. Fitted with either a D7 or D9 Volvo engine, the G900 range is designed to combine the attributes of productivity, operator friendliness, reliability and ease of service – in a quality package.

The seven models in the range are the G930 (15,554kg), G940 (15,957kg), G946 (16,650kg), G960 (16,678kg), G970 (17,702kg), G976 (18,395kg) and the G990 (20,993kg). The first four models are fitted with the 7.2 liter D7 Volvo engine, the larger three use the 9.4 liter D9 engine from Volvo. Volvo engines produce high torque at low engine speeds, combining responsiveness with fuel efficiency.

Through an extensive Voice of the Customer program, Volvo has integrated into the design the requirements of motor grader customers and users worldwide. The G900 family combines the technological strength of the Volvo Group with familiar Volvo CE attributes such as a superior operator environment. Each G900 Motor Grader features EU Stage IIIA and US Tier 3 compliant Volvo engines utilizing Volvo Advanced Combustion Technology (V-ACT) to run cleanly and without the extra service requirements of additional equipment or after-treatment of exhaust gases. All seven models have three power ranges, depending upon the transmission gear selected, as standard equipment. This feature works to optimize engine performance and enhance overall fuel efficiency by matching engine power to the application.

Wide stance blade lift cylinders coupled with the low angle side shift cylinder provide the most stable grading platform in the industry. Proportional Demand Flow (PDF) intelligent load sensing hydraulics and a powerful twin-gear, direct drive circle turn system result in a precise, instantly responsive earthmoving tool. It also provides high strength to hold or turn the moldboard smoothly while moving under full load. This

accuracy of control and performance results in more ‘one pass’ finishes – contributing significantly to productivity and cost saving.

Combining power with drive

Much of the finesse of motor graders lies in their ability to translate engine power into useable traction and control – and the transmission is central to this. The G900 range of motor graders uses Volvo’s own designed HTE840 transmission which has selectable Manual, (optional) Autoshift and Travel modes. With Autoshift the operator selects the target gear and the transmission shifts automatically through turns and grades as needed. Its shuttle shift feature aids quick, simple duty cycles by allowing shuttling between selected forward and reverse gears in a single smooth motion without clutching or pausing, greatly reducing operator fatigue. Autoshift comes as standard on the Volvo exclusive HTE1160 transmission – the industry’s first 11 speed grader drive train. With 11 forwards and six reverse speeds, the optional HTE1160 transmission allows more control (at low speeds), more efficient travel (at high speeds) and more precision in the normal working speeds. Such control also pays dividends when it comes to fuel economy as the engine can be operated at its most economical rpm.

The robotically welded frame helps ensure structural rigidity while the full perimeter rear frame design protects the power train from load stresses created by side and rear attachments, such as rippers. The structural design of the grader is focused on placing its power and weight to maximize blade down force and drawbar pull rates. At the rear, Volvo APR70 and APR90 planetary reduction axles reduce loading on tandem chains and deliver both power and traction to the ground efficiently. To match grader performance with tractive conditions, an operator can lock or un-lock the rear axle differential with a simple ‘flick of a switch’.

The front axle has a high centre ground clearance, a sharp steering angle and a minimum of components to minimize maintenance. In fact, there is no daily greasing or weekly servicing of the G900 range, with only an optional 500 hour engine oil change interval. Even fuelling is easy, with ground level access. Sight glasses and level sensors take care of the rest. The now familiar Contronics electronic monitoring system has been expanded in the G900 family, allowing 25 grader functions to be analyzed.

The two All Wheel Drive (AWD) models in the range offer three distinct features in their drive systems. The powerful six wheel drive combines with an efficient four wheel tandem drive and a “front-wheels-only” Creep Mode which is ideal for precise fine grade applications. The operator has 16 selectable levels of aggression to match AWD performance to the task at hand for ultimate control. Whether it is the versatile G946 or the industry’s largest All Wheel Drive grader, the G976, Volvo AWD models really are motor graders for all occasions

Seat of power

The operator environment of the G900 range meets the demands of safety, comfort and ease of use that has become a signature of the Volvo range. ROPS/FOPS certified, the Volvo cab’s familiar styling features large glazed areas which allow forward, rear and downward views – aided by six optimally placed interior and exterior mirrors, which together give a commanding view around the machine. Open the cab door, and the steps and handholds are illuminated automatically for safer entry and exit. The low noise, low

vibration cabin is pressurized and has two large capacity filters to maintain a constant flow of clean air. All essential operator controls are mounted on a slide & tilt adjustable centre pedestal. Low effort pedals and short throw levers help reduce operator fatigue – and all are within easy reach. There are even coat hooks and storage areas for the tidy minded and mounting brackets allows for communications equipment to be easily fitted. Quite simply, the G900 cab is a great place to spend the working day!

With the support of the worldwide Volvo CE dealer network, the new G900 family of Volvo Motor Graders sets a new standard in grading performance and productivity.

Volvo family of G900 Motor Graders: basic specifications

Produktivitet (standard equipment)	G930	G940	G946	G960	G970	G976	G990
Blade pull at max. base weight (0.9 traction coefficient) kg	12.819	12.819	16.675	12.859	13.921	18.144	17.146
Blade down force capability kg	8.271	8.155	8.509	8.495	9.528	9.890	11.409
Engine – High range net power kW (hp)	145 (195)	160 (215)	175 (235)	175 (235)	186 (250)	198 (265)	198 (265)

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