

16M

Motor Grader



Engine

Engine Model	Cat® C13 ACERT™ VHP	
Base Power (1st gear) – Net	221 kW	297 hp
Base Power (1st gear) – Net (Metric)		301 hp
VHP Range – Net	221-233 kW	297-312 hp
VHP Range – Net (Metric)		301-316 hp
VHP Plus Range – Net	221-248 kW	297-332 hp
VHP Plus Range – Net (Metric)		301-337 hp

Moldboard

Blade Width	4.9 m	16 ft
Weights		
Operating Weight, Typically Equipped	30 544 kg	67,338 lb

Features

Operator Station

A revolutionary cab design gives you unmatched comfort, visibility and ease of use, so your operators can be more confident and productive.

Structures, Drawbar, Circle and Moldboard

Durable structures with fast and simple DCM adjustments save you service time. Shims and wear strips save you money and make it easy to maintain factory tightness of components for better grading results.

Hydraulics

Load sensing, proportional hydraulics mean operators can rely on consistent power. This precise, predictable implement response will save time and help assure quality work.

Integrated Technologies

Grade control and machine monitoring technologies help you improve grading efficiency and enhance fleet management for improved machine utilization.

Safety

The safety of your operators and those on the job site is key in the design of every Cat® machine. Features like outstanding visibility, Operator Not Present Monitoring System and redundant steering and braking systems help you meet your goals of getting everyone home safely at the end of each work day.

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The M Series Motor Grader represents a revolution in operational efficiency and overall productivity. The 16M is designed to help you build and maintain the haul roads needed to support maximum efficiency in mining operations. The 16M has set a new standard of quality to maximize your return on investment.



Operator Station

Comfort, productivity, advanced technology

Visibility

Good visibility is key to your safety and efficiency. Large windows make it easy to see the moldboard and tires, as well as behind the machine. A rear vision camera is available to enhance your sight lines to the rear of the machine.

Comfort and Control

Experience the most spacious, comfortable cab in the industry. Revolutionary joystick controls replace levers, so hand and arm movement is reduced by 78%, helping to reduce operator fatigue. Rocker switches and control levers are in easy reach.

A standard Cat Comfort Series suspension seat and electronically adjustable control pods add even more to comfort and productivity. Multiple isolation mounts significantly reduce sound and vibration for a more relaxed work environment.

The high capacity Heating, Ventilation and Air Conditioning (HVAC) system dehumidifies and pressurizes the cab, circulates fresh air, seals out dust and keeps windows clear.

Enjoy streaming audio from a portable device or hands-free use of a mobile phone while operating machine with available Bluetooth technology.

In-Dash Instrument Cluster

Easy-to-read, high-visibility gauges and warning lamps keep you aware of critical system information. Cat Messenger offers real-time machine performance and diagnostic data to help you get the most from your machine.

Steering and Implement Controls

Unprecedented precision and ease of operation



Operators are more comfortable and productive with two electro-hydraulic joysticks. Electronically adjustable control pods help position operators for optimal visibility and proper operation.

Joystick Functions

The left joystick controls steering, articulation, return-to-center, wheel lean, gear selection, left moldboard lift cylinder and float.

The right joystick controls drawbar, circle and moldboard functions as well as electronic throttle control and manual differential lock/unlock.

Joystick lean angle mirrors the steer tires' turning angle. A brake tensioning system holds the joystick in position until the operator moves it. The steering control automatically reduces steering sensitivity at higher ground speeds for predictable control.

A Programmable Auxiliary Hydraulic Pod controls up to five additional hydraulic circuits to optimize your machine for specific applications.



Electronic Throttle Control

Provides easy, precise and consistent throttle operation. An automatic/manual mode switch offers flexibility for different applications and operator preferences.

Articulation Return-to-Center

Automatically returns the machine to a straight frame position from any angle with the touch of a button.

Selectable Blade Lift Modes

Choose the blade lift modulation mode that best fits your application or operating style: Fine, Normal, or Course.

Engine

Power and reliability



The Cat C13 engine with ACERT™ Technology gives you the performance to maintain consistent grading speeds for maximum productivity. Superior torque and lugging capability pulls through sudden, short-term load increases.

ACERT Technology lowers combustion chamber temperatures and optimizes fuel combustion to generate more work output for your fuel cost.

Variable Horsepower (VHP) is standard, delivering an additional 3.73 kW (5 hp) in forward gears 1-4 and reverse gears 1-3. This balances traction, speed and horsepower to optimize rimpull and conserves fuel. VHP Plus is optional, giving you an additional 3.73 kW (5 hp) in gears 1-8 for more power at higher speeds.

Hydraulic Demand Fan

The hydraulic demand fan automatically adjusts fan speed to meet engine cooling requirements. When demand is reduced, you benefit from more power to the ground and improved fuel efficiency.

Compression Brake

The standard three-phase compression brake enables higher travel speeds downhill, while reducing wear on brake components. This improves overall productivity and lowers your maintenance costs.

Ether Starting Aid

A standard ether starting aid helps cold-weather startups in extreme temperatures.

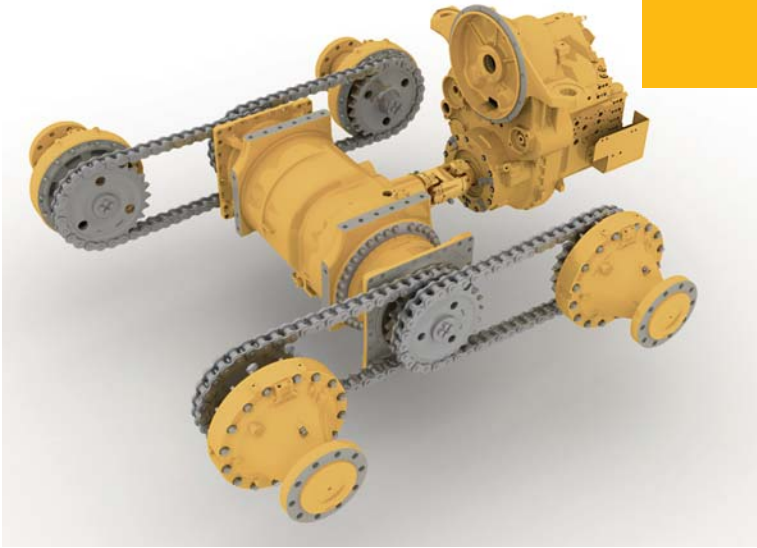
Engine Idle Shutdown Timer

This standard feature can be software-enabled by your Cat dealer to shut down the engine after a set period of time to save you fuel and help reduce emissions.



Power Train

Maximum power to the ground



We designed the 16M to give you efficiency and longevity in your most demanding applications.

- Optional Automatic Differential Lock unlocks the differential during a turn and re-locks when straight for easier operation and improved power train protection.
- Full Electronic Clutch Pressure Control (ECPC) system optimizes inching modulation for smooth shifts and directional changes, reducing stress on gears.
- Standard Programmable Autoshift simplifies operation by allowing the operator to program the transmission to shift at optimal points to match your application.
- Power Shift Countershaft Transmission is matched to the Cat engine to maximize power to the ground.
- Eight forward and six reverse gears are specifically designed to give you a wide operating range for maximum productivity in all earthmoving applications.
- Engine Over-Speed Protection prevents downshifting until an acceptable safe travel speed has been established.

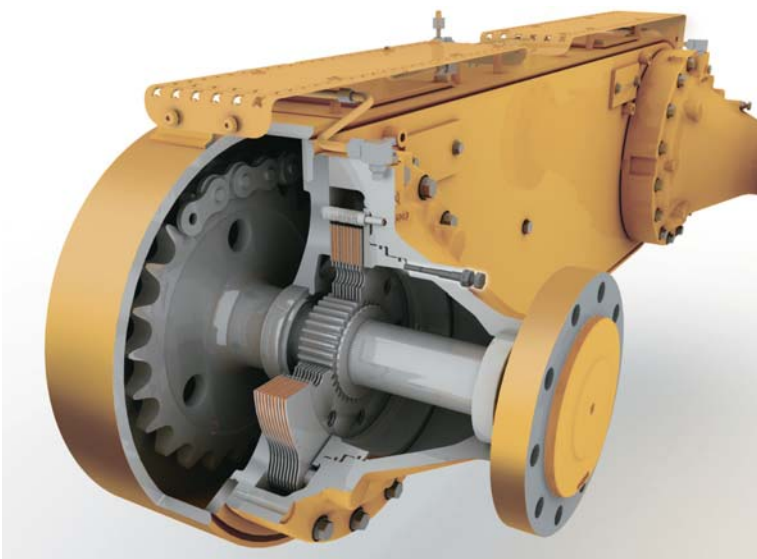
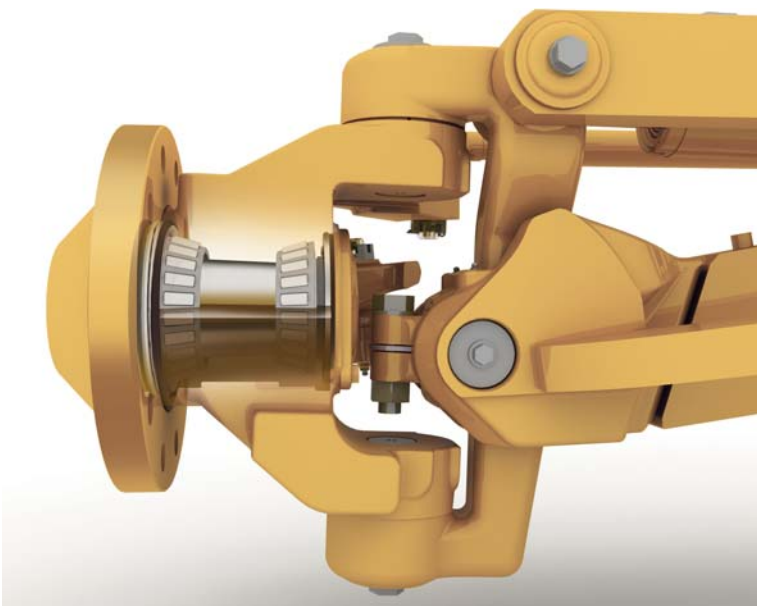
Front and Rear Axles

The sealed spindle keeps front axle bearings lubricated and protected from contaminants. The Cat “Live Spindle” design places the larger tapered roller bearing on the outside, where the load is greater, extending bearing life.

A bolt-on modular rear axle improves serviceability and contamination control with easy access to differential components.

Hydraulic Brakes

Oil-bathed multi-disc service brakes are hydraulically actuated for smooth, predictable braking and lower operating costs. Brakes are located at each tandem wheel for a large total brake surface area to give you dependable stopping power and longer life.



Structures and Drawbar-Circle-Moldboard

Service ease and precise blade control

Caterpillar designs motor grader frame and drawbar components to give you performance and durability in heavy duty applications. The one-piece forged steel circle stands up to high stress loads, and a sacrificial wear system helps keep your service time and costs down.

The articulation hitch features a large tapered roller bearing to carry loads evenly and smoothly. It is sealed to prevent contamination and a locking pin prevents articulation for safety during service or transport.

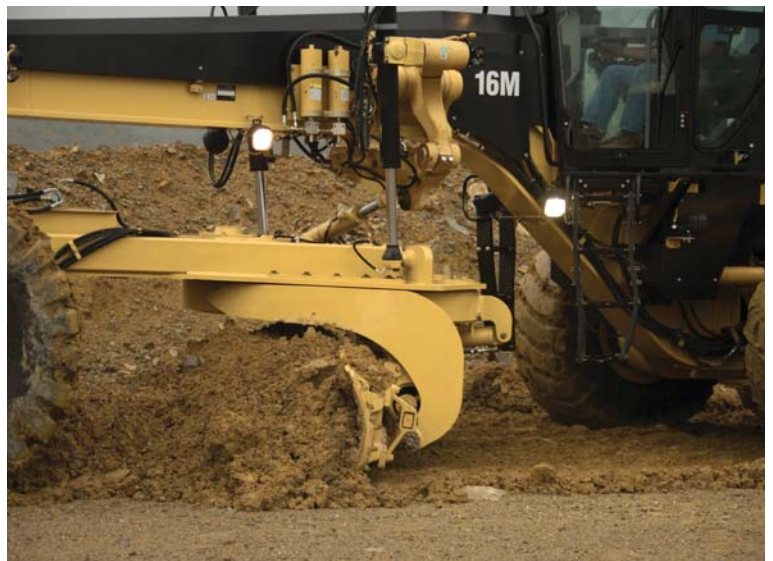
Blade Angle and Moldboard

An aggressive blade angle helps you work more efficiently by allowing material to roll more freely along the blade.

Heat-treated rails, hardened cutting edges and end bits, and heavy duty bolts to give you greater moldboard reliability and long service life. The link bar allows extreme moldboard positioning for easier bank sloping and ditch cutting/cleaning.

Easy Maintenance for More Uptime

A series of shims, patented top-adjust wear strips and wear inserts are easy to add or replace. This keeps drawbar-circle-moldboard components factory-tight for higher quality work, and saves you service time and costs. An adjustable rear circle drive reduces service time and reduces wear by keeping components light.



Hydraulics

Advanced machine control

State-of-the-art electro-hydraulics gives you advanced machine controls with precise and predictable movements.

Load Sensing Hydraulics (PPPC)

A proven load-sensing system and advanced Proportional Priority Pressure-Compensating (PPPC) electro-hydraulic valves give you superior implement control and enhanced machine performance. Continuously matching hydraulic flow/pressure to power demands creates less heat and reduces power consumption.

- Consistent, Predictable Movement – PPPC valves have different flow rates for the head and rod ends of the cylinder, so you can count on consistent, predictable implement response.
- Balanced Flow – Hydraulic flow is proportioned to give you confidence that all implements will operate simultaneously without slowing the engine or speed of some implements.



Blade Float

Allows the blade to move freely under its own weight. By floating both cylinders, the blade can follow the contours of the haul road. Floating only one cylinder permits the toe of the blade to follow a hard surface while the operator controls the slope with the other lift cylinder. An optional Variable Down Pressure feature allows you to select the amount of down force when the blade is in float. This helps you extend cutting edge life and is effective for removing snow and mud from a road surface.

Independent Oil Supply

Large, separate hydraulic oil supplies prevent cross-contamination and provide proper oil cooling, which reduces heat build-up and extends component life. Cat XT™ hose allows high pressures for maximum power and reduced downtime.

Cat Grade Control

Cat Grade Control Cross Slope is a standard, fully integrated, factory installed grade control system that helps your operator more easily maintain desired cross slope by automatically controlling one side of the blade. The system is job-ready from day one, and scalable for the future with AccuGrade™ upgrade kits that provide additional 2D and/or 3D control features.

Cat MineStar™ System

The optional Cat MineStar System is the industry's broadest suite of integrated mine operations and mobile equipment management technologies, configurable to suit your operation's needs.

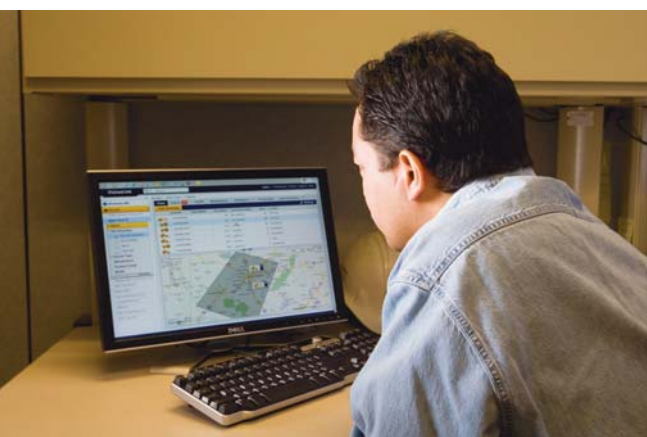
- **Fleet** provides real-time machine tracking, assignment and productivity management, giving you a comprehensive overview of all operations from anywhere in the world.
- **Terrain** enables high-precision management of drilling, dragline, grading and loading operations through the use of guidance technology. It increases machine productivity and provides you real-time feedback for improved efficiency.
- **Detect** helps increase operator awareness, enhancing safety at your operation. It includes a range of capabilities designed to assist the operator with areas of limited visibility around fixed and mobile equipment.
- **Health** works to minimize unscheduled downtime and productivity loss, plus helps you keep your operating costs in check by streamlining service and maintenance management.

For additional information, please see your Cat dealer or visit mining.cat.com/miningtechnology.



Integrated Technologies

Solutions to make work easier and more efficient



Cat Product Link™*

Remote monitoring with Product Link improves your overall fleet management effectiveness. Events, diagnostic codes and data like hours, fuel, idle time are transmitted to a secure web based application, VisionLink™. VisionLink includes powerful tools to convey information to you and your Cat dealers, including mapping, working and idle time, fuel level and more.

*Product Link licensing not available in all areas. Please consult your Cat dealer for availability.

Safety

Designed with protection in mind

Access Platform

Optional factory installed wrap-around platform has rear enclosure walkways, left walkway lighting, rear fenders, left-rear swing-down ladder and a right-front cab egress ladder.

Operator Not Present Monitoring System

Keeps the parking brake engaged and hydraulic implements disabled until the operator is initially seated and the machine is ready for operation.

Speed Sensitive Steering

Makes steering less sensitive as ground speed increases for greater operator confidence and control.

Secondary Steering System

Automatically engages an electric hydraulic pump in case of a drop in steering pressure so the operator can steer the machine to a stop.

Hydraulic Lockout

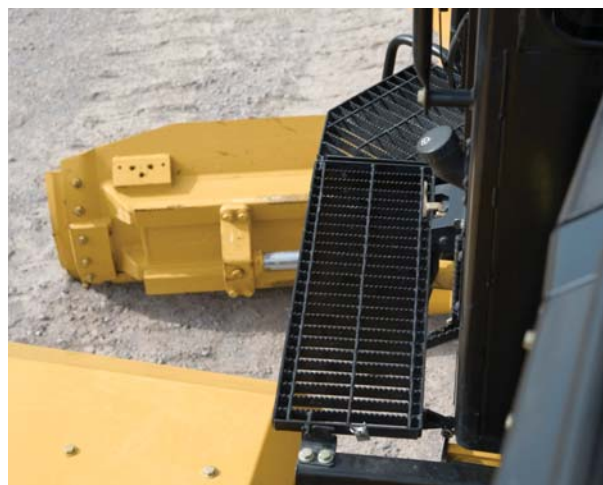
Disables all implement functions while still providing machine steering control. This safety feature is especially useful while roading.

Brake Systems

Brakes are located at each tandem wheel to eliminate braking loads on the power train. Redundant brake systems utilize accumulators to enable stopping in case of engine failure.

Walkways and Grab Rails

Perforated steel tandem walkways and conveniently located grab rails offer a sturdy platform and support for moving on, off and around the machine. Lighting can be activated from ground level and turned off via in-cab switch.



Object Detection

Optional camera and radar system alerts operator via an in-cab display if any objects are in close proximity when the machine is in reverse. The scalable system allows cameras and a display to be installed initially and radar to be added later for additional functionality.

Rearview Camera

A camera with in-cab monitor is available to further enhance lines of sight and help operators be more aware of their surroundings.

Circle Drive Slip Clutch

Protects the drawbar, circle and moldboard from shock loads when the blade encounters an immovable object. This standard feature also reduces the possibility of abrupt directional changes in poor traction conditions.

Blade Lift Accumulators

Help absorb impact loads to the moldboard by allowing vertical blade travel. This standard feature helps reduce unnecessary wear and also helps reduce impact loading for enhanced operator safety.



Other Safety Features

- Grouped, ground level service points
- Laminated front window glass
- Optional LED Lighting
- Ground-level electrical disconnect switch
- Ground-level engine shutoff switch
- Optional window cleaning platform
- Dual exits
- Auxiliary equipment mounting area
- Glare reducing paint for night operation

Serviceability and Customer Support

When uptime counts

Cat motor graders are designed to help customers increase uptime and reduce costs. Grouped service points and extended service intervals save maintenance time. An optional Automatic Lubrication System maintains proper grease on working surfaces, increasing component life and purging contaminants from pins and bushings to help prevent damage. Standard Fast-Fill allows customers to refuel in less than two minutes to get back on the job quickly.

Advanced Diagnostics

- Cat Messenger, combined with full systems integration, enhances diagnostic capability for quick analysis of critical data.
- Electronic Technician (Cat ET) lets service technicians access stored diagnostic data and configure machine parameters through the Cat Data Link.
- Low Battery Elevated Idle raises idle speed when low system voltage is detected, ensuring adequate system voltage and improving battery reliability.
- Automatic Engine Deration protects the engine by automatically lowering engine torque output and alerting the operator if critical conditions are detected.

Unparalleled Dealer Support

When it comes to supporting customers, especially in remote or challenging conditions, Cat dealers are second to none. From machine selection and purchase to maintenance support and rebuilds, Cat dealers have the experience and capabilities to keep customers up and running.





Sustainability

Thinking generations ahead

Fuel Efficiency

- Integrated machine systems and technologies improve productivity for greater accuracy, allowing the machine to do more work per gallon of fuel.

Green House Gas Emissions

- Emissions reduction technologies reduce NO_x + HC (hydrocarbon) emissions by 38% (g/kW-hr) as compared to the previous model.

Material Efficiency and Lifecycle Costs

- Replaceable wear parts save maintenance time and cost, and extend major component life.
- Major components are built to be rebuilt, eliminating waste and saving customers money by giving the machine and/or major components a second – and even third – life.
- Machine is built with a 94% recyclability rate (ISO 16714) to conserve valuable natural resources and further enhance machine end-of-life value.

Sound

- Reduced engine noise and quieter cabs mean lower operator and spectator sound levels.

Safety

- A variety of safety features help safeguard operators and others on the job site.



Work Tools and Attachments

Equip your machine for the job

Moldboard Options

A 4.9 m (16 ft) moldboard is standard on the 16M.

Ground Engaging Tools (GET)

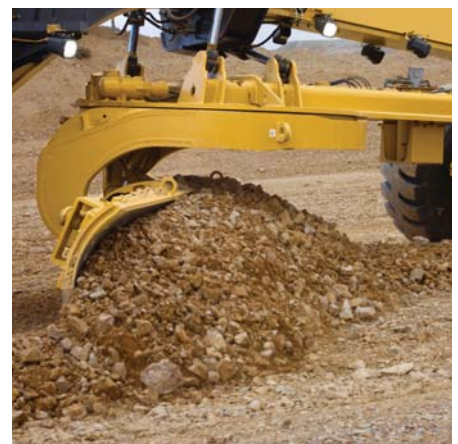
A variety of tools are available from Cat Work Tools, including cutting edges, graderbits and end bits, all designed for maximum service life and productivity.

Front Mounted Groups

A front mounted push plate/counterweight or front lift group are available. The front lift group can be combined with a front dozer blade for added versatility.

Rear Ripper/Scarifier

Made to penetrate tough material fast and rip thoroughly for easier movement with the moldboard. The ripper includes three shanks with the ability to add four more for additional versatility.



16M Motor Grader Specifications

Engine

Engine Model	Cat C13 ACERT VHP	
Base Power (1st gear) – Net	221 kW	297 hp
Base Power (1st gear) – Net (Metric)		301 hp
VHP Range – Net	221-233 kW	297-312 hp
VHP Range – Net (Metric)		301-316 hp
VHP Plus Range – Net	221-248 kW	297-332 hp
VHP Plus Range – Net (Metric)		301-337 hp
Displacement	12.5 L	763 in ³
Bore	130 mm	5.1 in
Stroke	157 mm	6.2 in
Torque Rise	46%	
Maximum Torque	1712 N·m	1,263 lb-ft
Speed @ Rated Power	2,000 rpm	
Number of Cylinders	6	
Derating Altitude	4572 m	15,000 ft
Standard – Fan Speed		
Maximum	1,200 rpm	
Minimum	550 rpm	
Standard – Ambient Capability	43° C	109° F
High Ambient – Fan Speed		
Maximum	1,450 rpm	
Minimum	550 rpm	
High – Ambient Capability	50° C	122° F

- Note: For U.S. and Canada dealers only, an EPA/ARB Flexibility engine or EPA/ARB Tier 4 Interim AB&T certified engine (Tier 3, credit using engine) is available. For EU and Turkey dealers only, engines are EU Stage IIIA Type Approved.

Note: For all other regions, engine meets emission standards equivalent to U.S. EPA Tier 3 or EU Stage IIIA standards.

- Net power is tested per ISO 9249, SAE J1349, and EEC80/1269 standards in effect at the time of manufacture.
- VHP Plus is an optional arrangement.
- Net power advertised is the power available at rated speed of 2,000 rpm, measured at the flywheel when engine is equipped with fan running at minimum speed, air cleaner, muffler and alternator.
- No engine derating required up to 4572 m (15,000 ft).

Net Power

	VHP kW (hp) – Net	VHP Plus kW (hp) – Net
Gear		
Forward		
1st	221 (297)	221 (297)
2nd	225 (302)	225 (302)
3rd	229 (307)	229 (307)
4th	233 (312)	233 (312)
5th	233 (312)	236 (317)
6th	233 (312)	240 (322)
7th	233 (312)	244 (327)
8th	233 (312)	248 (332)
Reverse		
1st	221 (297)	221 (297)
2nd	225 (302)	225 (302)
3rd – 6th	229 (307)	229 (307)

Power Train

Forward/Reverse Gears	8 Forward/6 Reverse
Transmission	Direct drive, power shift, countershaft
Brakes	
Service	Oil-actuated, oil-disc
Service – Surface Area	49 830 cm ² 7,724 in ²
Parking	Spring applied, hydraulically released
Secondary	Oil-actuated, oil-disc

Hydraulic System

Circuit Type	Electro-hydraulic load sensing, closed center
Pump Type	Variable piston
Pump Output	280 L/min 74 gal/min
Maximum System Pressure	24 150 kPa 3,500 psi
Standby Pressure	3100 kPa 450 psi

- Pump output measured at 2,150 rpm.

16M Motor Grader Specifications

Operating Specifications

Top Speed		
Forward	51.7 km/h	32.1 mph
Reverse	40.8 km/h	25.3 mph
Turning Radius (outside front tires)	8.9 m	29 ft 3 in
Steering Range – Left/Right	47.5°	
Articulation Angle – Left/Right	20°	
Forward		
1st	4.5 km/h	2.8 mph
2nd	6.1 km/h	3.8 mph
3rd	8.9 km/h	5.5 mph
4th	12.3 km/h	7.6 mph
5th	19.0 km/h	11.8 mph
6th	25.7 km/h	16.0 mph
7th	35.5 km/h	22.0 mph
8th	51.7 km/h	32.1 mph
Reverse		
1st	3.6 km/h	2.2 mph
2nd	6.6 km/h	4.1 mph
3rd	9.7 km/h	6.0 mph
4th	15.0 km/h	9.3 mph
5th	28.0 km/h	17.4 mph
6th	40.8 km/h	25.3 mph

• Calculated with no slip and 23.5 R25 L-3 tires.

Service Refill

Fuel Capacity	534 L	141 gal
Cooling System	60.4 L	16 gal
Hydraulic System		
Total	114 L	30.1 gal
Tank	65 L	17.2 gal
Engine Oil	30 L	7.9 gal
Transmission/Differential/Final Drives	114 L	30.1 gal
Tandem Housing (each)	121.5 L	32.1 gal
Front Wheel Spindle Bearing Housing	0.9 L	0.24 gal
Circle Drive Housing	8 L	2.1 gal

Frame

Circle		
Diameter	1822 mm	71.75 in
Blade Beam Thickness	50 mm	2 in
Drawbar		
Height	203 mm	8 in
Width	76 mm	3 in
Front Frame Structure		
Height	356 mm	14 in
Width	324 mm	12.8 in
Thickness	14 mm	0.06 in
Front Axle		
Height to Center	688 mm	27.1 in
Wheel Lean, Left/Right	18.2°	
Total Oscillation per Side	32.0°	

Tandems

Height	648 mm	25.5 in
Width	236 mm	9.3 in
Sidewall Thickness		
Inner	22 mm	0.9 in
Outer	22 mm	0.9 in
Drive Chain Pitch	63.5 mm	2.5 in
Wheel Axle Spacing	1841 mm	72.5 in
Tandem Oscillation		
Front Up	15°	
Front Down	25°	

Moldboard

Width	4.9 m	16 ft
Height	787 mm	31 in
Thickness	25 mm	1 in
Arc Radius	413 mm	16.3 in
Throat Clearance	126 mm	4.9 in
Cutting Edge		
Width	203 mm	8 in
Thickness	25 mm	1 in
End Bit		
Width	152 mm	6 in
Thickness	19 mm	0.75 in
Blade Pull		
Base GVW	17 591 kg	38,781 lb
Maximum GVW	22 024 kg	48,554 lb
Down Pressure		
Base GVW	13 224 kg	29,154 lb
Maximum GVW	19 979 kg	44,047 lb

• Blade pull calculated at 0.9 traction coefficient, which is equal to ideal no-slip conditions, and Gross Machine Weight.

Blade Range

Circle Centershift		
Right	597 mm	23.5 in
Left	647 mm	25.5 in
Moldboard Sideshift		
Right	1094 mm	43.1 in
Left	740 mm	25.6 in
Maximum Blade Position Angle	65°	
Blade Tip Range		
Forward	40°	
Backward	5°	
Maximum Shoulder Reach Outside of Tires		
Right	2587 mm	101.9 in
Left	2282 mm	90 in
Maximum Lift above Ground	395 mm	15.6 in
Maximum Depth of Cut	488 mm	19.2 in

Ripper

Ripping Depth – Maximum	452 mm	17.8 in
Ripper Shank Holders	7	
Shank Holder Spacing		
Minimum	445 mm	17.5 in
Maximum	500 mm	20 in
Penetration Force	11 830 kg	25,088 lb
Pryout Force	17 467 kg	38,508 lb
Machine Length Increase, Beam Raised	1610 mm	63.4 in

Weights

Gross Vehicle Weight – Typically Equipped		
Total	30 544 kg	67,338 lb
Front Axle	7728 kg	17,037 lb
Rear Axle	22 816 kg	50,301 lb
Gross Vehicle Weight – Base		
Total	27 531 kg	60,695 lb
Front Axle	7413 kg	16,342 lb
Rear Axle	20 118 kg	44,353 lb
Gross Vehicle Weight – Maximum		
Total	37 550 kg	82,784 lb
Front Axle	11 500 kg	25,353 lb
Rear Axle	26 050 kg	57,431 lb

- Base operating weight calculated on standard machine configuration with 23.5 R25 tires, full fuel tank, coolant, lubricants and operator.

Standards

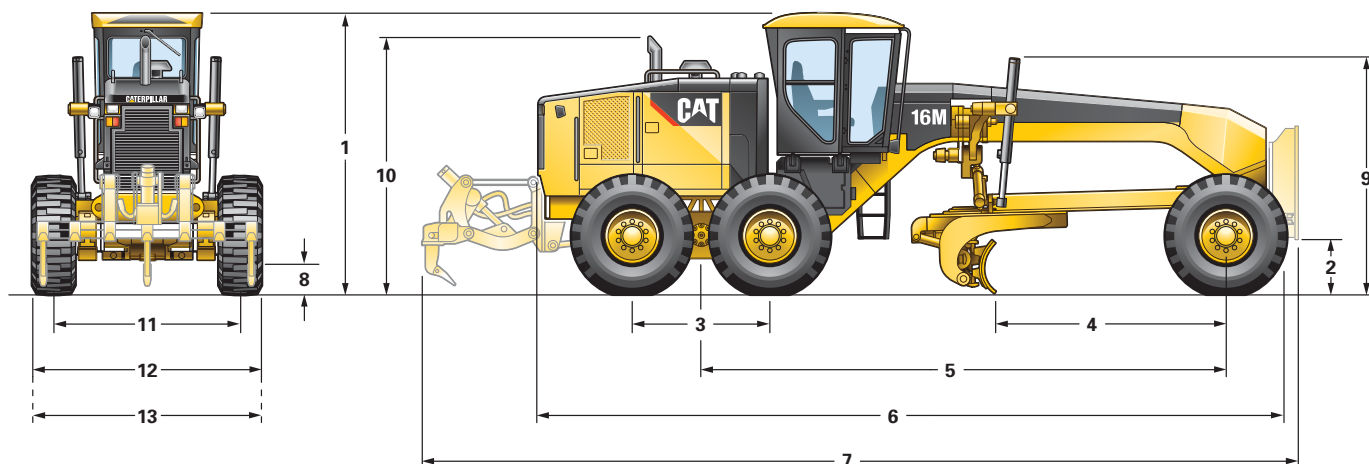
ROPS/FOPS	ISO 3471/ISO 3499
Steering	ISO 5010:2007
Brakes	ISO 3450
Sound	ISO 6394/ISO 6395

- The static operator sound pressure level is 73 dB(A) when ISO 6394:2008 is used to measure the value for an enclosed cab. The measurement was conducted with the cab doors and the cab windows closed. The cab was properly installed and maintained.
- The dynamic spectator sound pressure level is 108 dB(A) when ISO 6395:2008 is used to measure the value for an enclosed cab. The measurement was conducted at 70% of the maximum engine cooling fan speed.

16M Motor Grader Specifications

Dimensions

All dimensions are approximate, based on standard machine configuration with 18.00-25 12PR (G-2) tires.



1	Height – Top of Cab	3718 mm	146.4 in
2	Height – Front Axle Center	688 mm	27.1 in
3	Length – Between Tandem Axles	1841 mm	72.5 in
4	Length – Front Axle to Moldboard	3069 mm	120.8 in
5	Length – Front Axle to Mid Tandem	6985 mm	275 in
6	Length – Front Tire to Rear of Machine	9963 mm	392.2 in
7	Length – Counterweight to Ripper	11 672 mm	459.5 in
8	Ground Clearance at Rear Axle	416 mm	16.4 in
9	Height to Top of Cylinders	3088 mm	121.6 in
10	Height to Exhaust Stack	3387 mm	133.3 in
11	Width – Tire Center Lines	2509 mm	98.8 in
12	Width – Outside Rear Tires	3096 mm	121.9 in
13	Width – Outside Front Tires	3096 mm	121.9 in

Optional Tire Arrangements

Common tire options for the 16M.

Wheel Group	Tires
19.5×25 MP	23.5R25 Bridgestone VKT2 1 Star
19.5×25 MP	23.5R25 Bridgestone VMT 1 Star
19.5×25 MP	23.5R25 Bridgestone VUT 1 Star
19.5×25 MP	23.5R25 Titan MXL
19.5×25 MP	23.5R25 Michelin XHA2

Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

OPERATOR ENVIRONMENT

- Accelerator
- Air conditioner with heat
- Arm and wrist rest, adjustable
- Articulation, automatic Return-to-Center
- Ashtray and lighter
- Cat Messenger, operator information system
- Centershift pin indicator
- Coat hook
- Cup holder
- Display, digital speed and gear
- Doors, left and right side with wiper
- Gauge cluster – articulation, engine coolant temp, engine rpm, fuel, system voltage
- Gauges, machine level
- Hour meter, digital
- Joystick hydraulic controls for implements, steering, transmission
- Ladders, cab, left and right side
- Lights, left and right side lights
- Lights, night time cab
- Meter, hour, digital
- Mirror, inside rearview, wide angle
- Power port, 12V
- Radio ready, entertainment
- ROPS cab, sound suppressed, less than 75 dB(A)
- Seat belt, retractable 76 mm (3 in)
- Seat, cloth-covered, comfort air suspension
- Storage area for cooler/lunchbox
- Throttle control, electronic
- Windows, laminated glass
 - Fixed front with intermittent wiper
 - Side and rear windows (3)

POWER TRAIN

- Air cleaner, dual stage, dry type, automatic dust ejector, service indicator through Cat Messenger
- Air-to-air after cooler (ATAAC)
- Belt, serpentine, automatic tensioner
- Brakes, four-wheel hydraulic
- Differential, lock/unlock
- Drain, engine oil, high speed
- Electronic over speed protection
- Engine, Cat C13 with ACERT Technology
- Engine, compression brake
- Ether starting aid
- Fuel tank, fast fill, ground level
- Fuel-water separator
- Hydraulic demand fan
- Muffler, under hood
- Parking brake – multi disc, sealed, oil-cooled
- Priming pump, fuel
- Rear axle, modular
- Sediment drain, fuel tank
- Transmission, 8F/6R, power shift

ELECTRICAL

- Alarm, back up
- Alternator, 150 ampere, sealed
- Batteries, maintenance free, heavy duty, 1,400 CCA
- Breaker panel, ground accessible
- Electrical system, 24V
- Lights: reversing, roof-mounted roading, stop and tail (LED), work front
- Product Link Ready
- Starter, electric, heavy duty

OTHER STANDARD EQUIPMENT

- AccuGrade ARO
- Accumulators, blade lift
- Brake accumulators, dual certified
- Bumper, rear, integrated with hitch
- Cat Grade Control
- CD ROM Parts Book
- Clutch, circle drive slip
- Cutting edges, curved DH-2 steel
 - 203 mm × 25 mm (8 in × 1 in)
 - 19 mm (3/4 in) mounting bolts
- Doors (4), engine compartment, locking
- Drawbar – 6 shoe with replaceable wear strips
- Endbits, 19 mm (3/4 in) DH-2 steel
- Fluid check, ground level
- Frame, articulated, with safety lock
- Ground level engine shutdown
- Guards, service center debris
- Hammer (emergency exit)
- Horn, electric
- Hydraulics, base 8 implement controls
- Hydraulics, load-sensing
- Lockout, hydraulic implement for roading
- Moldboard
 - 4877 mm × 787 mm × 25 mm (16 ft × 31 in × 1 in)
 - Hydraulic sideshift and tip
- Paint, glare reducing – top of front frame, rear enclosure
- Radiator, cleanout access
- Secondary steering
- Serviceability, left-hand side
- S·O·SSM ports: engine, hydraulic, transmission, coolant, fuel
- Tandem walkway/guards
- Tool box
- Tow hitch

TIRES, RIMS, AND WHEELS

- A partial allowance for tires on 23.5" × 24" multi-piece rims is included in the base machine price and weight

FLUIDS

- Extended Life Coolant to –35° C (–30° F)

16M Optional Equipment

Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

	kg	lb		kg	lb
ELECTRICAL			POWER TRAIN		
• Lights, front headlights, low	22	48	• Differential lock, automatic	2	5
• Lights, front headlights, high	23	50	• Transmission, autoshift	2	5
• Lights, front, HID	15	34	• VHP Plus	0	0
• Lights, front, halogen	5	12	• Coolant, -45° C (-50° F)	0	0
• Lights, working, halogen	12	26			
• Lights, working, HID	24	52	OTHER ATTACHMENTS		
• Platform, lights, working, halogen	12	26	• Control, blade, variable float	9	20
• Platform, lights, working, HID	25	54	• Camera, rear vision	9	20
• Light, LED, warning strobe	1	2	• Heater, engine coolant, 120V	1	3
• Mounting, for warning light	5	10	• Heater, engine coolant, 240V	1	3
			• Hydraulic arrangements with one or more additional hydraulic valves are available		
GUARDS			– Auto-lube, Centro-matic	39	85
• Guard, transmission	159	350	– Auto-lube, ripper enhancement	5	10
• Guard, debris	11	24	• Metallic DCM wear strips	5	10
• Fenders, rear	514	1,150	• Snow arrangement	43	95
• Front axle cylinder guard	7	15	• Security system, machine	2	5
• Sound suppression, engine enclosure	11	25	• Rim, 19.5" × 25" MP (spare)	145	320
• Sound guard	11	25	• Weather, Cold Plus	11	24
• Covers, screen	5	10			
OPERATOR ENVIRONMENT			WORK TOOLS/G.E.T.		
• Mirrors, outside mounted	10	22	• Cutting edge, 4.9 m (16 ft) blade	127	280
• Mirrors, outside heated 24V	15	33	• Ripper, rear	1950	4,298
• Mirrors high visibility	14	30	• Pushplate, counterweight	834	1,840
• Platform, ladders left- and right-hand side	127	280	• Tooth, ripper	60	132
• Comfort package	10	23			
• Horn, air	7	15			

16M Motor Grader

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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