



UG20K

MOTOR GRADER



Elphinstone Underground Support Solutions
elphinstone.com

ELPHINSTONE

UNDERGROUND RELIABILITY



UG20K UNDERGROUND MOTOR GRADER





FOR IMPROVED PRODUCTIVITY AND RELIABILITY UNDERGROUND.

Machine Safety

With safety as a priority, the UG20K is engineered with features to help protect the operator and others on the job site. The two post Roll Over Protection System (ROPS) or Falling Object Protection System (FOPS) cab provides a quiet environment with low vibration levels reducing operator fatigue so you remain efficient, productive and safer all day. Laminated glass on the front windows and lockable doors are standard with the optional cab. Brake lights, conveniently located grab rails, back up lights and alarm also help ensure a safe work environment.

Maintenance and Serviceability

Grouped service points make daily maintenance easier and faster while enhanced diagnostics and monitoring help reduce downtime. Ground level access to service points reduce risk and time spent checking the machine status.

Machine Application

The Elphinstone UG20K Grader can significantly increase the productivity of the production fleet and reduce operational costs by maintaining haul roads. The UG20K can be optioned with many additional features to suit each application.

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STRUCTURES DRAWBAR-CIRCLE-MOLDBOARD



DESIGNED FOR STRENGTH AND DURABILITY.

Frame provides consistency and strength

The front frame is a continuous top and bottom plate structure. Flanged box section design removes welds from high stress areas, improving reliability and durability. The rear frame structure has two box section channels with a fully-welded differential case for a solid working platform. An integrated bumper ties the rear frame together into a cohesive unit to handle high stress loads.

Drawbar, circle and moldboard

The K Series drawbar is designed for high strength and optimum durability for any application.

The circle stands up to high stress loads. Raised wear surfaces prevent circle teeth wear against the drawbar. The 64 uniformly spaced circle teeth are flame cut and heat induction hardened to resist wear, and the circle is secured to the drawbar by four (120K) support shoes for maximum support.

The moldboard provides optimal curvature and large throat clearance that helps move all soil types quickly and efficiently. These features deliver excellent load distribution and minimal material buildup in the circle area while allowing large blade loads to roll freely.

Blade float

Standard blade float reduces down pressure and unnecessary cutting edge wear by allowing the blade to move freely under its own weight. By floating both cylinders, the blade can follow the contours of the ground. Floating only one cylinder permits the toe of the blade to follow a hard surface while you control the slope with the other lift cylinder. Blade float is especially useful for mud/snow cleanup or sweeping activities.

Moldboard

The standard moldboard length is 12' (3700mm). This may be reduced to 10' (3100mm) for underground applications (optional).



IMPROVED VERSATILITY AND PERFORMANCE.

Ground engaging tools

A wide variety of cutting edges and end bits are available, all designed for maximum service life and productivity.

Rear ripper (dealer fit option only)

The K Series optional ripper is made to penetrate tough material fast and rip thoroughly for easier material movement with the moldboard. The ripper includes three shanks with the ability to add two more if needed. The ripper is not standard equipment, it is a dealer fit option only.

Front mounted groups

A front mounted push plate/counterweight is standard equipment or a front blade can be ordered.

Front and rear tow points

Both front and rear tow points are painted red and are categorised as standard equipment.





OPERATOR ENVIRONMENT



ERGONOMICALLY DESIGNED FOR ALL-DAY COMFORT.

Designed for productivity

K Series cabs are designed to keep you comfortable, relaxed and productive. Features like low-effort pedals and controls, adjustable implement controls and adjustable steering wheel angle help make your work easier while tandem tyres enhance your productivity and safety. Working in the dark is easier with backlit transmission shifter and rocker switches.

In-dash instrument cluster

The instrument panel, with easy-to-read, high-visibility gauges and warning lamps, places vital machine information and diagnostic capability easily in your view.

The dash includes gauges for engine coolant temperature, articulation, voltage and fuel level. Service brake air pressure gauges and an hour meter are also standard. Speedometer and tachometer are standard. All major systems are monitored by warning lights. Both doors are fitted with interlocks and seat belt alarms (optional) are visual and audible.

Additional cab features

Additional cab features include a storage area, adjustable control console and coat hook. Optional features include a power port, an air conditioner/heater, suspension seat, defroster fan, backup lights, intermittent front wipers, radio installation ready and cup holder.



SAFETY FEATURES



MACHINE SAFETY IS OUR FIRST PRIORITY.

ROPS/FOPS Cab

The two post Roll Over Protection System (ROPS) or Falling Object Protection System (FOPS) cab provides a quiet environment with low vibration levels reducing operator fatigue so you remain efficient, productive and safer all day.

Lights, camera, action!

Dark becomes light with the well located series of LED lights providing a safe work environment by minimising intense shadow. The reversing camera (optional) provides the operator with a wide-angle view of the area behind the grader, increasing awareness of surroundings.

Electrical disconnect and engine shutoff switches

The disconnect switch provides ground-level lockout of the electrical system to prevent inadvertent machine starts. Engine shutoff allows anyone nearby to shut the machine down in case of an emergency.

Brake systems and machine protection

Brakes located at each tandem wheel offer the largest total brake surface area in the industry, delivering dependable stopping power and longer brake life. The standard circle drive slip clutch protects the drawbar, circle and moldboard from shock loads when the blade encounters an immovable object.

Additional standard safety features

Laminated glass on the front windows and lockable doors are standard with the optional cab. Brake lights, conveniently located grab rails, back up lights and alarm also help ensure a safe work environment.



ENGINE ARRANGEMENT

MAXIMUM POWER AND EFFICIENCY.

Power management

The Cat C7 engine with ACERT™ Technology uses electronic control, precision fuel delivery and refined air management to provide outstanding performance and lower emissions.

Variable Horse Power (VHP) to provide more power in the higher gears.

The electronic throttle control provides easier, more precise and consistent throttle operation. Engine over-speed protection prevents downshifting until an acceptable safe travel speed has been established.



POWER TRAIN

RELIABLE PERFORMANCE.

Smooth shifting transmission

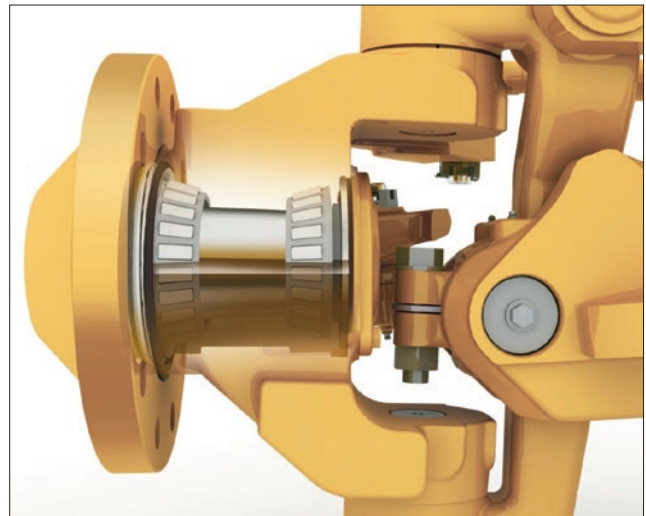
- » Full electronic clutch pressure control ensures smooth shifting and directional changes.
- » Shift torque management helps to smooth gear changes without the use of the inching pedal, helping the operator to remain focused on the task at hand.
- » Load compensation ensures consistent shift quality regardless of blade or machine load.
- » Optional autoshift automatically shifts the transmission at optimal points for easier operation.

Oil disc brakes completely sealed, adjustment free

Oil-bathed, air-actuated and spring-released, located at each tandem wheel to eliminate power train braking loads and to reduce service time. The large brake surface area provides dependable braking capability and extended life before rebuild.

Front axle with Cat live spindle design

Cat sealed spindle keeps the bearings free from contaminants and lubricated in a lightweight oil to reduce owning and operating costs. A larger tapered roller bearing is outboard where the load is greater, extending bearing life.





HYDRAULIC CONFIGURATION



DELIVERING POWER AND CONTROL.

Balanced flow, independent oil supply

Hydraulic flow is proportioned to ensure all implements operate simultaneously. Independent oil supply prevents cross-contamination and provides proper oil cooling, which means less heat build-up and extended component life.

Implement control valves

Provide outstanding operator "feel" and predictable system response for unmatched implement control. To help maintain exact blade settings, lock valves are built into all control valves. Line relief valves are also incorporated into selected control valves to protect the cylinders from over pressurization.

Load-sensing hydraulics

A load sensing variable displacement pump and advanced hydraulic valves provide superior implement control and better machine performance. Continuously matching hydraulic flow and pressure to power demands creates less heat and reduces power consumption.



Consistent and predictable movement

The hydraulic system valves are specifically designed for each hydraulic function on the motor grader. They compensate for differences in flow requirements, based on cylinder size and the difference in surface volume between the rod end and barrel end of the cylinder. The result is predictable, consistent hydraulic speeds whether extending or retracting the cylinder.



FEATURE OVERVIEW

DESIGNED FOR STRENGTH, DURABILITY AND INCREASED PRODUCTIVITY

● Standard ● Optional ● Safety

FRONT COUNTERWEIGHT PUSH BLOCK

Front counterweight/push-block ensures adequate machine balance and steering, particularly with shortened frame

WHEEL CHOCKS

2x chocks stored in brackets either side of the front counterweight

LED ARRANGEMENT

Optimal lighting front and rear

1x ROTATING BEACON

Rotating beacon

REDUCED HEIGHT MOLDBOARD CYLINDERS

AUTOMATIC LUBRICATION SYSTEM

Centrally manage and automatically apply lubrication to all pivot points and bearings on the machine

SHORTENED GRADER WHEELBASE

Includes shortening the frame and moldboard drawbar

ROPS/FOPS OPEN CANOPY

Low profile ROPS/FOPS

ROPS/FOPS ENCLOSED CABIN

Low profile ROPS/FOPS enclosed cabin with air conditioning and pressurisation

HIGH VISIBILITY GREEN HANDRAILS

MULTIVIEW CAMERA

Color 7" LCD display with 2x 118° cameras mounted low on the front of the cab and a 118° reverse camera at the rear

8x ADDITIONAL LED WORK LIGHTS

Appropriate for underground operation
2x below the cabin facing forward
2x facing rearwards and 4x mounted on the front frame facing forwards

AUTOMATIC FIRE SUPPRESSION SYSTEM

Manual activation in cabin

LIVE SPINDLE FRONT AXLE DESIGN

3-PIECE WHEEL RIMS

- STANDARD 12 ft MOLDBOARD
- SHORTENED 10 ft MOLDBOARD

CENTRE SHIFT LOCK GUARD

Protects the centre shift pin mechanism

FRONT RETRIEVAL POINT

Painted red





OPERATOR STATION

Features conventional steering wheel and lever hydraulic implement controls and easy to read in-dash instrument cluster

EMERGENCY GP-BRAKE

Automated actuation of the park brake when E-Stop is applied plus additional switch to park brake application

REDUCED HEIGHT EXHAUST OUTLET AND AIR INTAKE

DPF EXHAUST
CAT MUFFLER HEAT WRAP
DPF MUFFLER HEAT WRAP

AUTOMATIC FIRE SUPPRESSION SYSTEM

Pre-engineered dry chemical fire suppression system which is distributed through 6 fixed nozzles located throughout the engine compartment

REVERSE CAMERA

STOP (BRAKE) LIGHTS

FRONT AND REAR TURNING INDICATOR LIGHTS

EMERGENCY STOP

Red button accessible from LHS at ground level - RHS is optional

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EMERGENCY STOP

Red button accessible from within the operator station

COMPLETE CAT POWERTRAIN

Proven Cat C7 TIER 2 engine certified to with Bharat Stage III and China Stage II emissions standards, power-shift countershaft transmission, 8 forward / 6 reverse gears for optimal productivity, differential lock and oscillating tandem (chain) drive system

REAR RETRIEVAL POINT

Painted red

DIESEL FAST FILL SYSTEM

Fast and accurately filling of machine every time from the safety of the ground. Environmentally friendly by eliminating overfilling of tank

REAR RADIATOR PROTECTION FRAME

REFLECTIVE TAPE

Reflective tape delineation of the machine profile

HIGH VISIBILITY GREEN STEPS
Visually identifies the access points to safely board or step off the machine from the operator's cabin, engine compartment areas. (Available in standard black)



CUSTOMER SUPPORT

WHEN UPTIME REALLY COUNTS.

Renowned cat dealer support

From helping you choose the right machine to financing and ongoing support, your Cat dealer provides the best in sales and service.

- » Manage your costs with preventive maintenance programs like S-O-S fluids analysis, coolant sampling and guaranteed maintenance contracts.
- » Stay productive with best-in-class parts availability.
- » Your Cat dealer can also help you boost efficiency with operator training.
- » When it's time for component replacement, your Cat dealer can help you save even more. Genuine Cat remanufactured parts carry the same warranty and reliability as new products at savings of 40 to 70 percent for powertrain and hydraulic components.



FUTURE SUSTAINABILITY

THINKING INTO THE FUTURE.

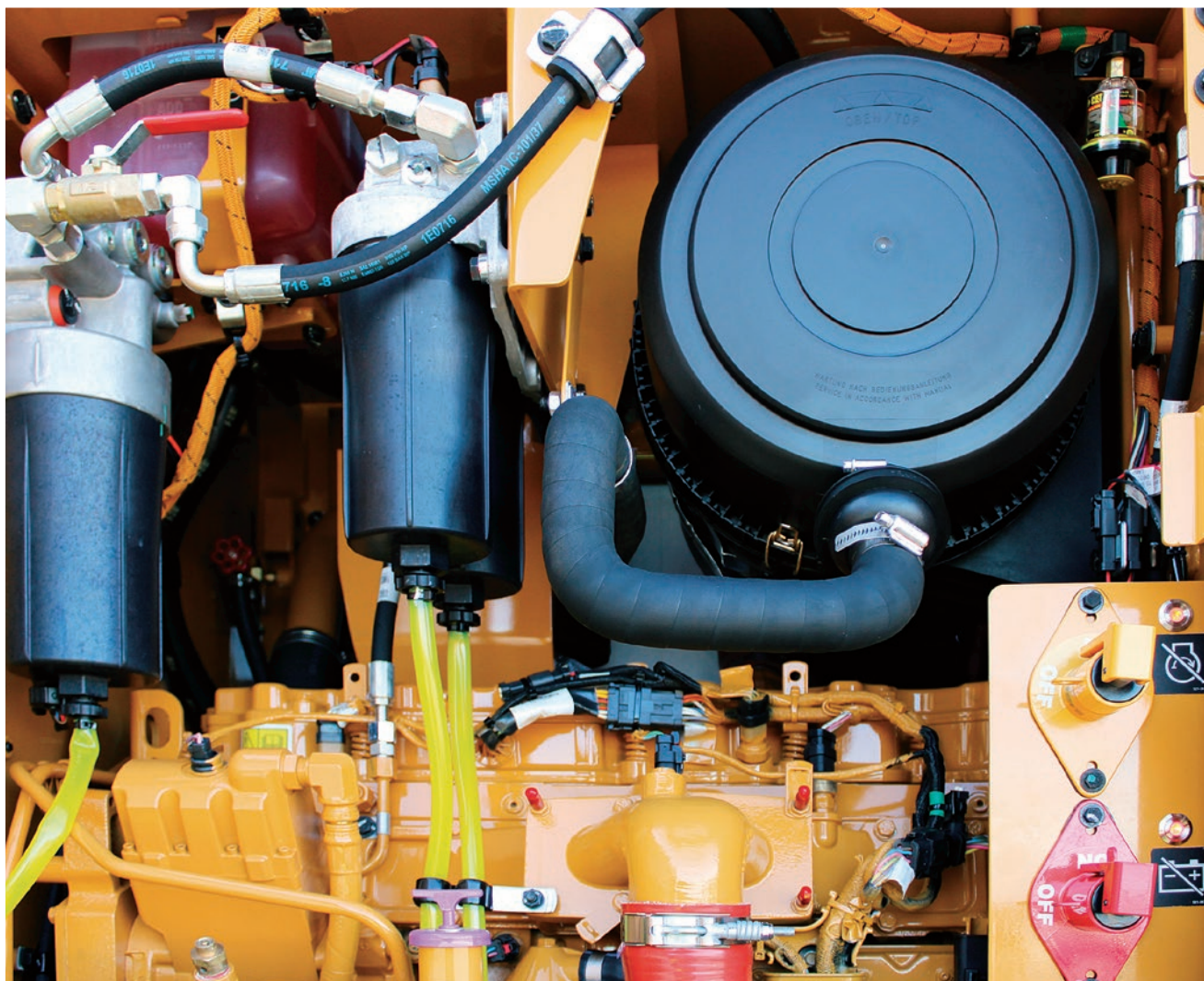
Sustainable waste and cost management

- » Integrated machine systems and technologies improve productivity for greater accuracy, lower fuel use and reduced machine wear.
- » Replaceable wear parts save maintenance time and cost, and extend major component life.
- » Ecology drains help make draining fluids more convenient and help prevent spills.
- » 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.
- » A variety of safety features help safeguard operators and others on the job site.





MAINTENANCE AND SERVICEABILITY



SERVICEABILITY MEANS MORE TIME FOR PRODUCTION.

Easy maintenance for more uptime

Easy access to service areas speeds up maintenance and ensures that routine service is performed on time. Ecology drains shorten service times and help prevent spills. Radiator cleanout access gives the operator the ability to clear away debris and other materials that build up around the radiator.

Extended service intervals

- » 500 hour engine oil changes.
- » 4,000 hour hydraulic oil changes.
- » 12,000 hour engine coolant changes.

Diagnostics and machine monitoring

The dash cluster panel provides enhanced machine information and diagnostic capability, which allows faster servicing of the transmission and engine.

Cat electronic technician (Cat ET)

Cat Electronic Technician is a two-way communication tool that gives service technicians easy access to stored diagnostic data, reducing machine downtime and lowering operating costs.



O-Ring face seals

O-Ring face seals create a reliable connection and are used in all hydraulic circuits to minimise the possibility of oil leaks.

Separate wiring harnesses

Modular harness design provides simple disconnects for major machine repairs or rebuilds which reduces machine downtime.

Circle Saver™ (Cat option)

Keeping your system lubricated daily is important and the optional Circle Saver makes it easy to do. The easy-to-access grease kit allows you to keep the circle drive pinion greased at all times. Circle Saver features a remote fitting and grease line that runs from the drawbar to the pinion housing (aka bucket) making it easier for you to grease the pinion from the top of the drawbar instead of underneath the circle.



TECHNICAL SPECIFICATIONS

Engine

Engine Model	Cat C7 ACERT™ TIER 2	
Base Power (1st gear), Net	93 kW	125 hp
VHP Range, Net	93kW-108 kW	125-145 hp
VHP, Gears		
1-2 Net	93 kW	125 hp
3 Net	101 kW	135 hp
4-8 Net	108 kW	145 hp
4-8 Gross	118 kW	158 hp
Displacement	7.2 L	439 in ²
Bore	110 mm	4.3 in
Stroke	127 mm	5 in
Torque Rise	50%	
Maximum Torque Net	774 N·m	571 lbf·ft
Speed @ Rated Power	2,000 rpm	
Number of Cylinders	6	
Derating Altitude	3048 m	10,000 ft
Fan Speed Maximum	1,575 rpm	
High Ambient Capability	50° C	122° F

- Net power is tested per ISO 9249, SAE J1349, and EEC 80/1269 standards in effect at the time of manufacture.
- Net power advertised is the power available at rated speed of hydraulic system.
- 2,000 rpm, measured at the flywheel when engine is equipped with fan, air cleaner, muffler and alternator.
- Maximum torque measured at 1,000 rpm in gears 4-8.

Powertrain

Forward/Reverse Gears	8 Forward/6 Reverse	
Transmission	Direct Drive, Power Shift	

Brakes

Service	Air Actuated, Multiple Oil-Disc	
Service, Surface Area	18,606 cm ²	2884 in ²
Parking	Air Actuated, Multiple Oil-Disc	
Secondary	Dual Circuit	

- Brakes meet the following standards: SAE J/ISO 3450 JAN98.

Hydraulic System

Circuit Type	Load Sensing, Closed Center Proportional Priority Pressure Compensating System	
Pump Type	Variable Piston	
Pump Output Standard Pump	159.1 L/min	42 gal/min
Maximum System Pressure	25,500 kPa	3,698.5 psi
Standby Pressure	3,600 kPa	522.1 psi
Reservoir Tank Capacity	24.5 L	6.4 gal

- Pump output measured @ 2,150 rpm

Operating Specifications

Top Speed		
Forward	47.5 km/h	29.5 mph
Reverse	37.5 km/h	23.3 mph
Turning Radius, Outside Front Tyres	7300 mm	23 ft 11 in
Steering Range, Left/Right	47.5 Deg.	
Articulation Angle, Left/Right	20 Deg.	
Forward		
1st	4.1 km/h	2.5 mph
2nd	5.5 km/h	3.4 mph
3rd	8.0 km/h	5.0 mph
4th	11.1 km/h	6.9 mph
5th	17.5 km/h	10.8 mph
6th	23.7 km/h	14.8 mph
7th	32.7 km/h	20.3 mph
8th	47.5 km/h	29.5 mph
Reverse		
1st	3.2 km/h	2.0 mph
2nd	6.0 km/h	3.7 mph
3rd	8.7 km/h	5.4 mph
4th	13.8 km/h	8.6 mph
5th	25.8 km/h	16.0 mph
6th	37.5 km/h	23.3 mph

- Maximum travel speeds calculated at high idle on standard machine configuration with 14.00-24 12PR (G-2) tyres.

Frame

Circle		
Diameter	1530 mm	60.2 in
Blade Beam Thickness	30 mm	1.2 in
Drawbar		
Height	127 mm	5 in
Width	76.2 mm	3 in
Front Axle		
Height to Centre	615 mm	24.2 in
Wheel Lean, Left/Right	18 Deg.	
Total Oscillation per Side	32 Deg.	

Tandem

Height	438 mm	17.24 in
Width	172 mm	6.77 in
Sidewall Thickness		
Inner	25.4 mm	1 in
Outer	16 mm	0.63 in
Drive Chain Pitch	44.5 mm	1.75 in
Wheel Axle Spacing	1510 mm	59.45 in
Tandem Oscillation		
Front Up	15 Deg.	
Front Down	25 Deg.	



TECHNICAL SPECIFICATIONS

Moldboard

Width	3658 mm	12 ft
	3048 mm	10 ft
Height	610 mm	24 in
Thickness	22 mm	0.9 in
Arc Radius	413 mm	16.3 in
Throat Clearance	58 mm	2.3 in
Cutting Edge		
Width	152 mm	6 in
Thickness	16 mm	0.6 in
Pull		
Base GVW	8,522 kg	18,788 lb
Maximum GVW	10,622 kg	23,420 lb
Down Pressure		
Base GVW	5,876 kg	12,955 lb
Maximum GVW	9,317 kg	20,540 lb

- Moldboard Pull calculated at 0.9 traction coefficient, which is equal to ideal no-slip conditions, and Gross Vehicle Weight (GVW).

Moldboard Range

Centreshift				
Right	656 mm		25.8 in	
Left	656 mm		25.8 in	
Sideshift / 12' Moldboard				
Right	663 mm		26 in	
Left	512 mm		20.2 in	
Sideshift / 10' Moldboard				
Right	359 mm		14.1 in	
Left	205 mm		8 in	
Tip Range				
Forward	40 Deg.			
Backward	5 Deg.			
Maximum Shoulder Reach Outside of Tyres				
Wheelbase / Blade Length	Left		Right	
Standard / 12'	1770 mm	69.6 in	1830 mm	72 in
Standard / 10'	1160 mm	45.6 in	1220 mm	48 in
Shortened / 12'	1690 mm	66.5 in	1730 mm	68.1 in
Shortened / 10'	1080 mm	42.5 in	1120 mm	44 in

Maximum Lift Above Ground	410 mm	16.1 in
Maximum Depth of Cut	445 mm	30.5 in

Service Refill

Fuel Capacity	305 L	80.6 gal
Cooling System	40 L	10.6 gal
Engine Oil	18 L	4.8 gal
Transmission / Differential / Final Drives	48 L	12.7 gal
Tandem Housing (each)	49 L	12.9 gal
Front Wheel Spindle Bearing Housing	0.5 L	0.1 gal
Circle Driving Housing	7 L	1.9 gal

Weights

Gross Vehicle Weight, Base		
Total	12,133 kg	26,749 lb
Front Axle	3,120 kg	6,878 lb
Rear Axle	9,013 kg	19,871 lb
Gross Vehicle Weight, Typically Equipped		
Total	13,834 kg	30,519 lb
Front Axle	3,970 kg	8,878 lb
Rear Axle	9,873 kg	21,871 lb
Gross Vehicle Weight - Maximum		
Total	17,000 kg	37,478 lb
Front Axle	5,197 kg	11,456 lb
Rear Axle	11,803 kg	26,022 lb

- Base weight calculated on standard machine configuration with 14.0R24 12PR (G-2) tyres, SP rims, full fuel tank, coolant, lubricants and operator.
- Typical operating weight calculated on standard machine configuration with High Cab Profile ROPS, 14.0R24 12PR (G2) tyres, full fuel tank, coolant, lubricants and operator.
- Maximum vehicle weight includes all compatible attachments with high cab Profile ROPS, 14.0R24 12PR (G-2) tyres, full fuel tank, coolant, lubricants and operator.

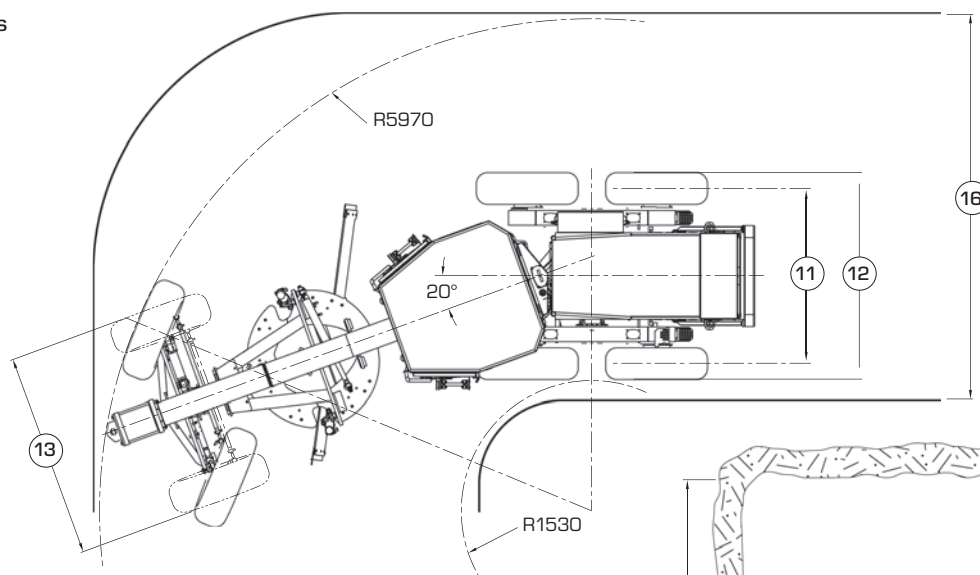
Standards

ROPS/FOPS	ISO 3471:2008 / ISO 3449:2005
Steering	ISO 5010:2007
Brakes	ISO 3450:1996

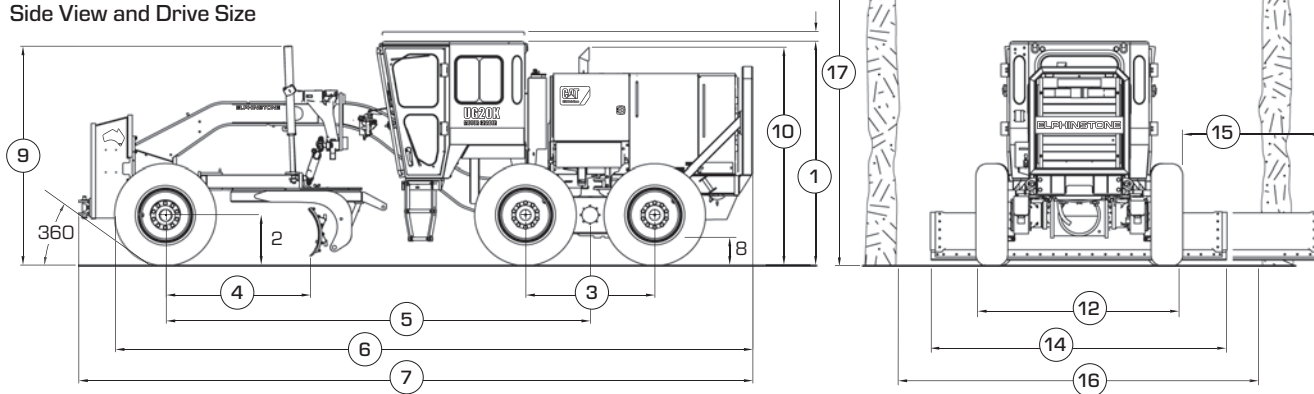


MACHINE DIMENSIONS

Turning Radius



Side View and Drive Size



Dimensions

Shortened spine option. All dimensions are based on 14.0R24 tyres. *Ripper is a dealer fit option

1	Height - Top of Cab Height - Top of Canopy	2640 mm 2765 mm	8 ft 7.9 in 9 ft 0.8 in
2	Height - Front Axle Centre	600 mm	1 ft 11.6 in
3	Length - Between Tandem Axles	1510 mm	4 ft 11.4 in
4	Length - Front Axle to Moldboard Length - Front Axle to Moldboard - Shortened Spine Option	2598 mm 1690 mm	8 ft 6.2 in 5 ft 6.5 in
5	Length - Front Axle to Mid Tandem Length - Front Axle to Mid Tandem - Shortened Spine Option	5870 mm 4950 mm	19 ft 3.1 in 16 ft 2.8 in
6	Length - Front Tyre to Rear of Machine Length - Front Tyre to Rear of Machine - Shortened Spine Option	8380 mm 7500 mm	27 ft 5.9 in 24 ft 7.3 in
7	Length - Counterweight to Rear of Machine Length - Counterweight to Rear of Machine - Shortened Spine Option Length - Counterweight to Ripper* Length - Counterweight to Ripper* - Shortened Spine Option	8850 mm 7930 mm 9770 mm 8850 mm	29 ft 0.4 in 26 ft 0.2 in 32 ft 0.6 in 29 ft 0.4 in
8	Ground Clearance - Transfer Case	340 mm	1 ft 1.3 in
9	Height - Top of Cylinders	2600 mm	8 ft 6.4 in
10	Height - Exhaust Stack	2600 mm	8 ft 6.4 in
11	Width - Tyre Centre Lines	2056 mm	6 ft 8.9 in
12	Width - Outside Rear Tyres	2440 mm	8 ft 0.1 in
13	Width - Outside Front Tyres	2450 mm	8 ft 0.4 in
14	Width - Moldboard Standard Width - Moldboard Optional	3658 mm 3048 mm	12 ft 10 ft
15	Maximum Reach, Standard 12 ft Moldboard	1830 mm	72 in

Drive Size

16	Minimum Width Portal (90° corner)	4500 mm	14 ft 9.2 in
17	Typical Minimum Height Portal	4500 mm	14 ft 9.2 in



STANDARD AND OPTIONAL EQUIPMENT

Powertrain

Air Cleaner - Dry type radial seal with service indicator and automatic dust ejector	●
Air Cleaner - Dual stage dry type diesel with automatic dust ejector	●●
Air To Air After Cooler (ATAAC)	●
Blower Fan	●
Brakes, Oil Disc, Four Wheel Air Actuated	●
Differential with Lock/Unlock	●
Engine, Cat 7 with ACERT Technology, diesel with automatic engine derate and idle control, certified to Bharat Stage III and China Nonroad Stage II emission standards	●
Fuel Tank, 305 L (80.6 Gal)	●
Fuel Water Separator	●
Muffler, Under Hood	●
Parking Brake, Multi-disc, Seal and Oil Cooled	●
Prescreener	●
Priming Pump, Fuel, Resiliently Mounted	●
Sediment Drain, Fuel Tank	●
Tandem Drive	●
Transmission, 8 speed forward and 6 speed reverse, power shift, direct drive with electronic shift control and overspeed protection	●
VHP (Variable Horse Power)	●

Antifreeze

Coolant, Extended Life for -35°C (-30°F)	●
Coolant, Arctic Extended Life for -50°C (-58°F)	●●

Operator Environment

Accelerator	●
Air Conditioner with Heater	●●
Cab, ROPS	●●●
Camera, Reverse	●●●
Canopy, ROPS	●●●
Control Console, Adjustable	●
Fan, Defroster, Front Window	●●
Gauge Cluster, Includes Voltmeter, Articulation, Engine Coolant Temperature, Air Brake Pressure And Fuel Level	●
Guard Rails, Operator Station	●
Hydraulic Controls, Load Sensing (right/left blade lift, circle drive, centreshift, sideshift, front wheel lean and articulation)	●
Indicator lights (includes high beam, LH and RH turn, low engine oil pressure, throttle lock, check engine, transmission filter bypass and check, centreshift pin, brake air pressure, parking brake engaged, auto shift)	●
Key Start / Stop Switch	●
Meter, Hour	●
Mirrors, Outside Mounted	●
Power Steering, Hydraulic	●
Seat Belt, Retractable, 2 Point	●
Seat Belt, Retractable, 2 Point with Occupancy Indicator	●●
Seat, Compact Mechanical Suspension, Low Back with Black PVC Trim	●
Steering Wheel, Tilt, Adjustable	●
Storage Area, Cooler/Lunch Box	●
Tachometer/Speedometer	●
Throttle Control	●
Wipers, Intermittent Front	●●

Electrical

Alternator, 115 Ampere	●
Backup Alarm, Reversing Lights	●
Bar Mounted, Low, Directional and Headlights	●
Batteries, Maintenance Free 750 CCA	●
Electrical System, 24 volt	●
Emergency Stop Switch Cab	●●●
Emergency Stop Switch LHS Engine Cowling	●●●
Emergency Stop Switch RHS Engine Cowling	●●●
Horn, Electric	●
Lights, Stop, Tail	●
Lights, Flashing, Beacon (Rotating Amber)	●●●
Lights, Working, Cab Mounted, Low	●●
Motor, Starting	●
Product Link Cellular PLE 641	●
Lights, Working	●

Work Tools

Moldboard 12 ft Blade, 12 ft x 24 in x 7/8 in (3658 mm x 610 mm x 22 mm) with hydraulic side shift and blade tip. 2 x 6 ft, 6 in x 5/8 in (152 mm x 16 mm) DH2 heat treated cutting edges	●
Moldboard 10 ft Blade, 10 ft x 24 in x 7/8 in (3048 mm x 610 mm x 22 mm) with hydraulic side shift and blade tip. 1 x 6 ft & 1 x 4 ft, 6 in x 5/8 in (152 mm x 16 mm) DH2 heat treated cutting edges	●●
Endbits, 5/8 in (16 mm) DH-2 Steel	●

Hydraulics

Pump, Hydraulic, Standard 159.1 L/min (42 gal/min)	●
Tank, Reservoir, Capacity 24.5L (6.4 gal)	●
Pump Type, Variable Piston	●

Ripper

Machine ready for dealer fit	●
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Guards

Guard, Transmission	●
Rear Guard	●

Other

Automatic Fire Suppression System (Dry Powder or AFFF)	●●●
Clutch, Circle Drive, Slip	●
Doors, Engine Compartment	●
Drawbar, 4 Shoe Replaceable Nylon Composite Wear Strips	●
Dryer, Air	●
Film, GP Reflective, Fluorescent Yellow	●●●
Film, GP Reflective, Fluorescent Orange	●●●
Frame, Articulated with Safety Lock	●
Link Bar, 7 Position	●
Parts Book, Operation and Maintenance Manual Download	●
Push Plate, Counterweight	●
Retrieval Points	●
Seat Cover (Cloth)	●●
Seat Cover (Canvas)	●
SOS SM Ports, Engine, Hydraulic, Transmission and Cooling	●
Steps, Colour Green	●●
Security - Including Cap Locks for Hydraulic Tank, Radiator Access Cover, Fuel Tank, Engine and Transmission Oil Check/Fill and Lockable Battery Boxes	●
Wheel Chocks	●●●

OVER 45 YEARS IN THE MINING INDUSTRY.

Elphinstone Pty Ltd is an established Caterpillar Original Equipment Manufacturer with over 45 years' experience in the mining industry. Elphinstone specialises in the design, manufacture and support of quality equipment for the global underground and surface mining industries.

The Elphinstone range of Underground Mining Support Vehicles combines practical design, the latest technology and quality manufacturing to ensure reliable performance.

The current product range includes specialised underground support vehicles, mine extraction devices, extended distance off-highway haulage trucks and water tanks customised to suit Caterpillar articulated trucks.

As an authorised Caterpillar Original Equipment Manufacturer, all Elphinstone products are sold and supported via the global Cat® dealer network.

UG20K MOTOR GRADER

For more complete information on Elphinstone products, dealer services, and industry solutions, visit www.elphinstone.com or contact your local Cat dealer.

Material and specifications are subject to change without notice. Featured machines in photos may include additional equipment.

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