




PURCHASING DEPARTMENT

Madison County Board of Supervisors
146 West Center Street / Post Office Box 608
Canton, MS 39046
Office (601)-855-5534 ~ Fax (601) 859-5875

June 17, 2024

To: Board of Supervisors
From: Kesha Jackson, Purchasing Clerk 
Subject: Award Motor Grader - Road Department

Attached copies of the results of the recent reverse auction for Motor Grader.

I recommend that the Board take the following actions:

1. Acknowledge bids received;
2. Award Motor Grader to Puckett Machinery Co. as lowest and best bidder.


Thank you in advance for your consideration of the above recommendations.

Menu s Planning and Zoning Bid Tool Email Manager Help Bid Tool

- Create New Bid
- View Pending Bids
- View Open Bids
- View Closed Bids
- View Public Log
- Bid System Log
- Permissions
- Current Time: 06-13-2024 09:21:51 am

Show 10 entries

Search:

ID	Name	Phone	Email	Company Name	Date Submitted	Bid Amount	View Bid
3268	Kennon Ferguson	(601) 209-2670	kennon.ferguson@puckettmachinery.com	Puckett Machinery Co.	06-05-2024 10:09:19 am	\$366,948.00	

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MADISON COUNTY, MISSISSIPPI
INVITATION FOR BIDS
Motor Grader

The Madison County Board of Supervisors will receive un-priced proposals on the following:

1. Motor Grader

Un-priced proposals will be accepted until 10:00 a.m. on Friday, May 31, 2024 by electronic submission at <http://www.madison-co.com/bids> or in sealed envelope at the Chancery Clerk's Office, 125 West North Street, Canton, Mississippi. For any questions relating to the electronic submission process, please call Kesha Jackson at 601-855-5534.

Submitted un-priced proposals will be evaluated, and vendors submitting acceptable proposals will be invited to submit priced bids. Bidding will be held by electronic reverse auction on Wednesday, June 5, 2024, at 10:00 a.m. Bidders may come to the Office of Purchasing with a paper bid and receive technical assistance in entering their bid in the reverse auction.

Specifications for the Motor Grader are available on the bid page of the Madison County Board of Supervisors at: <http://www.madison-co.com/bids>. Additionally, specifications are on file in the Chancery Clerk's Office, Madison County Office Complex, 125 West North Street, Canton, Mississippi, 39046 and available during normal business hours. There is no charge for specifications obtained using either of these methods.

All bids must comply with the specifications provided. Madison County reserves the right to amend the specifications, as necessary, and agrees to notify all who have requested bid packets from the Madison County Board of Supervisors.

The Madison County Board of Supervisors reserves the right to extend the auction date if necessary, to complete the bid proposal pre-qualification process.

Electronic proposals must be submitted at <http://www.madison-co.com/bids>.

All in-person submitted un-priced proposals must be sealed and clearly labeled on the outside of the bid envelope as instructed in the bid package and delivered to the Chancery Clerk's Office, at 125 West North Street, Canton, Mississippi.

The Board of Supervisors reserves the right to reject any and all bids.

SUBMITTED:

MADISON COUNTY JOURNAL

FOR PUBLICATION ON:

Thursday, May 2, 2024

Thursday, May 9, 2024

PROOF OF PUBLICATION TO:

Madison County Chancery Clerk

PO Box 404

Canton, MS 39046

Madison County Board of Supervisors
Bid Specifications for
New 2024 Model or Newer Motor Grader
 Complete by checking the following
 IF NOT COMPLIANT, state specifically the item being offered.

<u>Basic Specifications</u>	<u>YES</u>	<u>NO</u>	<u>OFFERED</u>
Machine shall be designed and built by the manufacturer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Base machine weight shall not be less than 37,420 lbs. (16974 kg). Weight shall include standard machine Configuration, lubricants, coolants, full fuel tank and Operator of 200 lbs. (91 kg).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Machine wheel base (distance from front axle to mid tandem) shall not be less than 241 in (6123 mm).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
The rear frame shall have two box section channels with an integrated bumper as standard.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
A toolbox shall be provided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
A Hydraulic Mid Mount Scarifier should be present just behind the front wheels, just in front of the blade.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<u>Engine</u>			
Engine shall be designed and built by the manufacturer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall be a turbo-charged, direct injection, four stroke 6-cylinder diesel engine.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall be certified EPA Tier 4 Final and European Union Stage IV.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall be electronically controlled for more efficient fuel injection and fuel burn.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall achieve rated power requirement with engine Displacement not less than 9.3L (568 In) for better performance and fuel economy.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Initial AE Date 5/23/24

	<u>YES</u>	<u>NO</u>	<u>OFFERED</u>
Engine enclosures and daily service points shall be accessible from ground level and grouped on the left side of the machine.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine fan shall automatically adjust fan speed via a variable hydraulic fan pump to meet engine cooling requirements thus reducing demand on the engine, putting more horsepower to the ground, reducing noise, improving fuel economy, and reducing heat.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall allow for at least 1000 hours of operation between oil changes. (with SOS sampling).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<u>Powertrain/Transmission</u>			
Transmission shall be designed and built by the machine manufacturer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Transmission shall be a direct drive, power shift, countershaft type.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Transmission shall be equipped with built-in self-diagnostic capability.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Transmission shall have no less than 8 forward speeds and 6 reverse speeds (for added safety).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Transmission shall have 5 working gears between 0-10.6 mph (0-17.1 km/h), for dirt applications.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Automatic Differential Lock/Unlock feature shall be standard and shall not have speed, shuttle shifting or tandem spinning restrictions for engaging/disengaging. System must be load-sensing for optimal performance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Machine shall have no drive shafts that cross over the articulation hitch.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Initial KE Date 5/23/24

Steering & Implement Controls

YES

NO

OFFERED

Steering wheel shall not be required to operate Machine, but joysticks.

The left 3-axis joystick shall control wheel lean with individual left and right wheel lean buttons as standard.

Primary steering shall be achieved via a left hand, multifunction, 3-axis, joystick as standard, using an intuitive steering control System that automatically adjusts steering sensitivity as machine ground speed increases.

Articulation to the right or left shall be achieved by a multifunction, 3-axis left joystick with the twist of such to the right or left by the left-hand, multifunction, 3-axis joystick.

An articulation return-to-center button on the left multifunction, 3-axis, joystick, shall return the machine to a straight frame Position from any articulation angle with the touch of a single button.

The right 3-axis joystick shall primarily control the Drawbar, Circle And Moldboard.

Joystick controls shall be mounted to adjustable pedestals, hard mounted to be cab floor, independent of the operator seat.

Brakes

Machine shall have primary and secondary service brakes

Parking brake shall be multi-disc, oil-cooled, spring-applied, hydraulically released, sealed, adjustment-free, and integrated into the transmission. Park brake shall not be externally located.

Parking brake shall be serviceable without removing the transmission

Service brakes shall be multi-disc, oil cooled and completely sealed they will also provide access to check and determine brake wear without removing or disassembling the brake assembly

Initial LR Date 5/23/24

Hydraulic System

YES **NO**

OFFERED

A standard triple redundant hydraulic relief system protect machine hydraulic components.

Hydraulic implement pump shall produce between 0 and 55.7 gal/min (210L/min) of oil flow at 2,150 RPM.

Hydraulic system shall be a closed center, load sensing type with a variable displacement, axial piston-type pump.

Hydraulic system shall be fully sealed, using Duo-cone and O-ring face seals to prevent leaks, contamination, and spillage.

The hydraulic tank shall have a baffling system to reduce potential pump cavitations.

The maximum hydraulic system pressure shall be no more Than 3,500 psi (24, 150 kPa)

A sight gauge will be provided for checking hydraulic reservoir fluid.

Hydraulic filter will have 1000 hour change filter interval

Tires and Rims

A 10 in (25.4 cm) by 24 in (60.96 cm) size 3-piece tire rim shall be available to provide mounting for 14.00R24 conventional tires

Operations Station

A 42,075 BTU/h (12.3 kW) heater shall have an integral pressurizer and four-speed fan along with A/C.

Cab shall have angled floor design allowing direct visibility to moldboard.

Seat shall be a cloth-covered suspension seat with, 3-inch (76 mm) retractable seat belts, with adjustments for fore-aft position, seat height, seat back angle, thigh support and lumbar support.

An enclosed cab with ROPS (Rollover Protective Structure) according to ISO 3471 shall be provided.

Machine shall have no less than 19 adjustable vents, positioned to direct air to front windows and operator.

Initial KF Date 5/23/24

Circle and Moldboard

YES **NO**

OFFERED

Drawbar, circle, and moldboard shall be controlled with a maximum of two multifunction, 3-axis joysticks as standard.

Drawbar wear strips shall be replaceable drop-in inserts made from nylon composite material, replaceable and adjustable from the top of the drawbar plate via removable cover plates.

The drawbar shall feature weided protective wear plates to prevent lift group contact with the primary drawbar structure.

The standard moldboard shall be at least 14ft (3.7m) long, 24 in (610 mm) high and no less than 7/8 in (22 mm) thick.

Moldboard shall have a bank slope angle capability of at least 90 degrees to both sides.

Top adjust DCM will have Moldboard wear strips shall be adjusted with lock screws, providing shim less adjustment capability both vertical and horizontal.

There shall be 3 sideshift anchor positions shall be provided for extended reach capability as standard.

Pinion Gear shall be separate from the Pinion Shaft to allow for a quick and easy serviceable design.

Serviceability and Warranty

Machine shall have a lockable swing-out cooling fan housing featuring a latch-style mechanism (shall not be of a bolted design) allowing easy access to cores. Ability to open/close shall be ground level accessible, eliminating need to climb on machine.

The dipstick for checking transmission fluid shall be at ground level

Hydraulic tank site gauge shall be readable from the ground
Engine primary and final fuel filters shall have 1000 hour service replacement interval with fluid sampling.

Engine oil filter shall be a 1000 hour change interval cartridge style filter.

Initial KF Date 5/23/24

	<u>YES</u>	<u>NO</u>	<u>OFFERED</u>
Engine primary and final fuel filters shall have 1000 hour service replacement interval.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall have primary fuel filter with water in filter (wif) sensor, quick release dual stage filter and primer pump.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cartridge style filters (engine oil filter, fuel filters) shall have ability to drain filter canisters prior to removal for cleaner and easier filter changes.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Machine will come with a Full Machine Bumper to Bumper Warranty for 60 months or 5000 hours, whichever comes first.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Machine will come with Supplemental Travel Time and Mileage coverage for any warrantable issues for 60 months or 5000 hours whichever comes first. County will not receive a bill for travel time and mileage for 60 months or 5000 hours for any type of warrantable failure during that Full Machine Warranty period of 60 months or 5000 hours whichever comes first by supporting Dealer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Selling Dealership shall have a full time certified instructor, demo operator available for safety and training purposes.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Initial KF Date 5/23/24

MANDATORY BID SHEET

COMPANY NAME: Pickett Machinery Co.

ADDRESS: 100 Caterpillar Drive Flowood MS 39232

TELEPHONE: 601-209-2670

FAX NUMBER: _____

EMAIL: Kennon.Ferguson@pickett-machinery.com

Kennon Ferguson 5/23/24
AUTHORIZED REPRESENTATIVE'S SIGNATURE **DATE**

KENNON FERGUSON
PRINTED AUTHORIZED REPRESENTATIVE'S NAME HERE

PROPOSAL SHEET MUST BE SIGNED AND DATED BY AN AUTHORIZED COMPANY REPRESENTATIVE

MUST INCLUDE PRODUCT SUMMARY, INCLUDING DETAILS OF ALL FEATURES AND OPTIONS OF PROPOSED VEHICLE



MACHINE SALES QUOTATION

Jackson (601) 969-6000
Gulfport (228) 832-1711
Natchez (601) 442-1633
Meridian (601) 483-4511
Hattiesburg (601) 268-2000
Brookhaven (601) 833-5115

_____ of _____ pages

Customer No:	
Company Name:	MADISON COOUNTY
Contact:	
Phone No:	

Quote No:	
Date:	5/23/2024
Salesman:	FERGUSON
Machine Model:	140
Serial No:	
P. O. No:	

QTY	DESCRIPTION	PRICE
NEW	140 NEXT GEN CATERPILLAR MOTORGRADER PREMIUM CAB WITH A/C AND HEAT 14 FOOT MOLDBOARD JOYSTICK CONTROLS TIER 4 FINAL ENGINE COMFORT SUSPENSION SEAT PRODUCT LINK 14.00 X 24 TIRES EXTERNAL MIRRORS REAR CAMERA MID MOUNT SCARIFIER WORKING LIGHTS WITH TURN SIGNALS ACCUGRADE READY PRODUCT LINK	
Total		

THIS QUOTE IS VALID FOR 30 DAYS
 PRODUCT AVAILABILITY
 _____ DAYS

SOURCEWELL CONTRACT # 032119-CAT

Accepted by: *Kennan Ferguson*



140

Motor Grader

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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140 Motor Grader Specifications

Engine		
Engine Model	Cat® C9.3	
Net Power ISO 9249/SAE J1349	186 kW	250 hp
Net Power All-Wheel Drive (AWD)	201 kW	270 hp
VHP Plus Range – Net (metric)	179-253 mph	
AWD Range – Net (metric)	179-273 mph	
Bore	115 mm	4.5 in
Displacement	9.3 L	567.5 in ³
Stroke	149 mm	5.9 in
Engine rpm	2,000	
Number of Cylinders	6	
Torque Rise – ISO 9294	44%	
Maximum Torque – ISO 9294	1245 N·m	918 lb-ft
Maximum Torque (AWD On)	1350 N·m	996 lb-ft
Derating Altitude	3962 m	13,000 ft
Derating Altitude AWD	3505 m	11,500 ft
Standard – Fan Speed	1,400 rpm	
Maximum – Fan Speed	1,550 rpm	
Minimum – Fan Speed	500 rpm	
Ambient Capacity	50° C	122° F

- The Cat® C9.3 engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Net Power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Rated speed at 2,000 rpm.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.*

140 Net Power			
Gear	VHP Plus – kW (hp)	AWD Off – kW (hp)	AWD On – kW (hp)
Forward			
1st	132 (177)	139 (186)	147 (197)
2nd	140 (187)	147 (197)	162 (217)
3rd	147 (198)	154 (207)	166 (223)
4th	155 (208)	158 (212)	170 (228)
5th	159 (213)	166 (223)	186 (249)
6th	167 (224)	170 (228)	201 (270)
7th	183 (245)	186 (249)	201 (270)
8th	186 (250)	186 (249)	201 (270)
Reverse			
1st	132 (177)	131 (176)	131 (176)
2nd	140 (187)	139 (186)	139 (186)
3rd-6th	147 (198)	147 (197)	147 (197)

140 Motor Grader Specifications

Powertrain

Forward/Reverse Gears	8 Forward/6 Reverse	
Transmission	Direct Drive Powershift	
High Idle Speed	2,150 rpm	
Low Idle Speed	800 rpm	
Air Cleaner	Dry	
Peak Torque at Minimum Fan	1138 N·m	839 lb-ft
Peak Torque at Minimum Fan AWD	1247 N·m	920 lb-ft

Tandems

Tandem Chain Pitch	50.8 mm	2 in
Height and Width	506 mm × 201 mm	20 in × 8 in
Oscillation Front Up	15°	
Oscillation Rear Up	22°	

Service Brakes

Type System	Dual Circuit Hydraulic	
Type Brake	Multiple Oil Disc	
Number of Brakes	4	
Number of Disc Assemblies (each)	6	
Size (outer diameter)	355 mm	14 in
Size (inner diameter)	255 mm	10 in
Lining Area Per Brake	5749 cm ²	891.1 in ²

Parking Brake

Type System	Hydraulic Actuated	
Type Brake	Multiple Oil Disc, Meets ISO 3450:2011	
Secondary Brakes	Dual Circuit Control System, Applies Two Service Brakes	

Operating Specifications

Top Speed Forward	48.4 km/h	30.1 mph
Top Speed Reverse	37.4 km/h	23.2 mph
Turning Radius, Outside Front Tires	7.6 m	24 ft 11 in
Steering Range	50° Left and Right	
Articulation Angle	18° Left and Right	
Forward		
1st	4.2 km/h	2.6 mph
2nd	5.7 km/h	3.6 mph
3rd	8.3 km/h	5.2 mph
4th	11.4 km/h	7.1 mph
5th	17.8 km/h	11.0 mph
6th	24.2 km/h	15.0 mph
7th	33.3 km/h	20.7 mph
8th	48.4 km/h	30.1 mph
Reverse		
1st	3.2 km/h	2.0 mph
2nd	6.1 km/h	3.8 mph
3rd	8.8 km/h	5.5 mph
4th	13.7 km/h	8.5 mph
5th	25.7 km/h	16.0 mph
6th	37.4 km/h	23.2 mph

- Machine speed measured at 2,150 rpm with 14.00R24 radial tires, no slip.

140 Motor Grader Specifications

Weight – Tandem

Gross Vehicle Weight – Typically Equipped*

Total	19 198 kg	42,325 lb
Front Axle	5859 kg	12,917 lb
Rear Axle	5088 kg	11,216 lb

Gross Vehicle Weight – Base

Total	16 787 kg	37,009 lb
Front Axle	4430 kg	9,766 lb
Rear Axle	12 357 kg	27,242 lb

Gross Vehicle Weight – Maximum Tested

Total	24 500 kg	54,013 lb
Front Axle	8820 kg	19,445 lb
Rear Axle	15 680 kg	34,568 lb

*Typically equipped operating weight is calculated with full fuel tank, coolant, lubricants, operator, push block, transmission guard, rear ripper/scarifier, 14.0R24 tires on multi-piece rims, and other equipment.

Major Component Weights

Base Machine	16 787 kg	37,009 lb
Canopy Open ROPS	-323 kg	-711 lb
All-Wheel Drive	873 kg	1,921 lb
Moldboard		
4267 mm × 610 mm × 22 mm (14 ft × 24 in × 7/8 in)	147 kg	323 lb
4267 mm × 686 mm × 25 mm (14 ft × 27 in × 1 in)	284 kg	625 lb
Guards		
Transmission	121 kg	266 lb
Front Fender	121 kg	266 lb
Blade Extension	113 kg	249 lb
Grader Bit	181 kg	400 lb
Mid-Mount Scarifier Package	917 kg	2,017 lb
Front Lift Group	680 kg	1,500 lb
Counterweight	427 kg	939 lb
Push Plate	895 kg	1,969 lb
Rear Ripper	1104 kg	2,429 lb
Front Scarifier	434 kg	956 lb

Weight – All-Wheel Drive (AWD)

Gross Vehicle Weight – Typically Equipped*

Total	20 236 kg	44,613 lb
Front Axle	5859 kg	12,917 lb
Rear Axle	14 377 kg	31,696 lb

Gross Vehicle Weight – Base

Total	17 825 kg	39,297 lb
Front Axle	5198 kg	11,460 lb
Rear Axle	12 627 kg	27,837 lb

Gross Vehicle Weight – Maximum Tested

Total	24 500 kg	54,013 lb
Front Axle	8820 kg	19,445 lb
Rear Axle	15 680 kg	34,568 lb

Hydraulic System

Type	Closed – Center	
Type Circuit	Parallel	
Pump	Type – Variable Piston	
Output* – @ 1,800 rpm	24 192 kPa	3,509 psi
	0-171 L/min	0-45.2 gal/min

*Depending on system requirements.

Service Refill Capacities

Fuel Tank	378 L	100 gal
Circle Drive	7 L	1.8 gal
Engine Crankcase	30 L	7.9 gal
Transmission and Differential	74 L	19.5 gal
Cooling System	57 L	15 gal
Hydraulic System	55 L	14.5 gal
DEF Tank	12.5 L	3.3 gal
Front Wheel Spindle Bearing (each)	0.5 L	0.13 gal
All-Wheel Drive (AWD) Gearbox	7 L	1.8 gal

140 Motor Grader Specifications

Drawbar Circle Moldboard

	Standard		Top Adjust	
Range of Motion				
Lift Cylinders	2		2	
Maximum Depth of Cut	735 mm	28.9 in	715 mm	28.1 in
Maximum Lift Above Ground	480 mm	18.9 in	480 mm	18.9 in
Throat Clearance	119 mm	4.7 in	166 mm	6.5 in
Circle Center Shift Cylinder				
Center Shift Right	728 mm	28.7 in	728 mm	28.7 in
Center Shift Left	752 mm	29.6 in	695 mm	27.4
Moldboard Side Shift Cylinder				
Side Shift Left	663 mm	26.1 in	661 mm	26 in
Side Shift Right	512 mm	20.2 in	515 mm	20.3 in
Blade Tip Cylinder				
Maximum Blade Tip Forward	40°		40°	
Maximum Blade Tip Backward	5°		5°	
Circle Drive	360° of Blade Rotation			
Link Bar	7 Positions to adjust the drawbar circle moldboard range of motion			
Drawbar Shoes	6 with replaceable wear strips			

Moldboard

	Standard		Option 1		Option 2	
Width	3.7 m	12 ft	4.3 m	14 ft	4.3 m	14 ft
Height	594 mm	23.4 in	635 mm	25 in	682 mm	26.9 in
End Bit	152 mm	6 in	152 mm	6 in	152 mm	6 in
Cutting Edge	152 mm	6 in	203 mm	8 in	203 mm	8 in
Arc Radius	413 mm	16.3 in	413 mm	16.3 in	413 mm	16.3 in
Throat Clearance	124 mm	4.9 in	124 mm	4.9 in	89 mm	3.5 in

• 3.7 m (12 ft) moldboard is standard.

Circle

Sections	Rolled Ring Forging
Number of Teeth	64
Rotation	360°

140 Motor Grader Specifications

Maximum Shoulder Reach Outside of Tires

Blade	3.7 m (12 ft)		4.3 m (14 ft)	
Right	1928 mm	76 in	2233 mm	88 in
Left	1764 mm	69.4 in	2201 mm	86.7 in

- An additional 300 mm (11.8 in) of reach can be achieved to the right or left by changing the side shift mounting bracket on the 4.3 m (14 ft) blade.

Ripper

Ripping Depth Maximum	426 mm	16.8 in
Ripper Shank Holder	5	
Ripper Shank Holder Spacing	533 mm	21 in
Penetration Force	9440 kg	20,812 lb
Pryout Force	11 877 kg	26,184 lb
Pryout Force (All-Wheel Drive)	13 650 kg	30,093 lb
Machine Length Increase, Beam Raised	1031 mm	40.6 in

Standards

Rollover Protective Structure (ROPS)	ISO 3471:2008
Falling Object Protective Structure (FOPS)	ISO 3449:2005 Level II
Brakes	ISO 3450:2011
Steering	ISO 5010:2007

Sound Performance

Machine Sound Power Level – 110 dB(A)	ISO 6395:2008
Operator Sound Pressure Level – 77 dB(A)	ISO 6396:2008

- The dynamic spectator sound power level measurements are performed according to the dynamic test procedures that are specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- The dynamic operator sound pressure level measurements are performed according to the dynamic test procedures that are specified in ISO 6396:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed, with the cab doors and the cab windows closed. The cab was properly installed and maintained.

Scarifier

Front, V-Type: Working Width	1205 mm	47.4 in
Front, V-Type: 5 or 11 Tooth		
Working Width	1031 mm	40.6 in
Scarifying Depth, Maximum	467 mm	18.4 in
Scarifier Shank Holders	11	
Scarifier Shank Holder Spacing	116 mm	4.6 in
Rear		
Working Width	2133 mm	84 in
Scarifying Depth, Maximum	426 mm	16.8 in
Scarifier Shank Holders	9	
Scarifier Shank Holder Spacing	267 mm	10.5 in

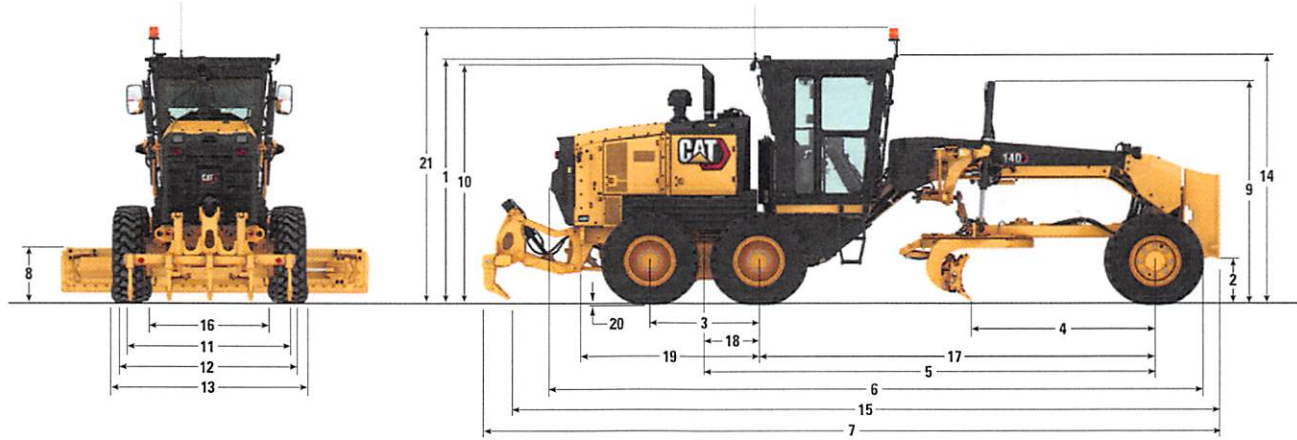
Electrical

Starting System Type	Direct Electric
Heavy Duty Battery	
CCA at 18°	1,125 amp
Volts	12V
Quantity	2
Extreme Duty Battery	
CCA at 18°	1,400 amp
Volts	12V
Quantity	2
Standard Alternator	115 amps at 24V
Heavy Duty Alternator	150 amps at 24V

140 Motor Grader Specifications

Dimensions

All dimensions are approximate.



Length of Machine*	10 100 mm	397.6 in
Maximum Height	3354 mm	148.8 in

*Typically equipped with push block and ripper.

Width	2480 mm	97.6 in
Basic Blade Width	3556 mm	140 in

1 Height – Top of Cab	3354 mm	132 in
2 Height – Front Axle Center	604 mm	23.7 in
3 Length – Between Tandem Axles	1497.5 mm	59 in
4 Length		
Front Axle to Moldboard (Non AWD)	2592 mm	102 in
Front AWD Axle to Moldboard (AWD)	2557 mm	100.7 in
5 Length		
Front Axle to Mid Tandem (Non AWD)	6169 mm	242.9 in
Front AWD Axle to Mid Tandem (AWD)	6134 mm	241.5 in
6 Length		
Front Tire to Rear of Machine (Non AWD)	8897 mm	350.3 in
Front Tire to Rear of Machine (AWD)	8862 mm	348.9 in
7 Length – Push Plate to Ripper	10 100 mm	397.6 in
8 Ground Clearance at Rear Axle	337 mm	13.3 in
9 Height to Top of Cylinders	3043 mm	119.8 in

10 Height to Exhaust Stack	3275 mm	128.9 in
11 Width – Tire Center Lines	2110 mm	83.1 in
12 Width – Outside Rear Tires	2464 mm	97 in
13 Width		
Outside Front Tires (Non AWD)	2480 mm	97.6 in
Outside Front Tires (AWD)	2594 mm	102.1 in
14 Maximum Height – with Attachments (Beacon in Shipment Position)	3413 mm	134.4 in
15 Length – Push Plate to Raised Ripper	9778 mm	385 in
16 Width – Inside Rear Tires	1711 mm	67.4 in
17 Length		
Front Axle to Articulation Hitch (Non AWD)	5325 mm	209.6 in
Front Axle to Articulation Hitch (AWD)	5290 mm	208.3 in
18 Length Rear Axle to Articulation Hitch	844 mm	33.2 in
19 Length – Rear Axle to Rear of Frame	1705 mm	67.1 in
20 Height – Tire Deflection at Performance Weight	65 mm	2.6 in
21 Maximum Height – with Attachments (Beacon in Operating Position)	3780 mm	149 in

140 Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ENGINE			CAB		
Cat C9.3 engine	✓		Vinyl seat	✓	
Snow precleaner		✓	ROPS, standard sound suppression	✓	
ECO mode	✓		Air suspension adjustable seat		✓
Extreme duty starter		✓	Information display screen	✓	
50° C (122° F) ambient capacity	✓		Open ROPS cab		✓
Reversing fan		✓	Heating, ventilation, and air conditioning (HVAC) system	✓	
All-Wheel Drive (AWD)		✓	Defrost fans		✓
Differential lock/unlock	✓		Halogen lighting	✓	
Engine idle shutdown timer	✓		Cup and bottle holders	✓	
Transmission, autoshift		✓	Implement lockout		✓
MOLDBOARD			Adjustable control console	✓	
Standard drawbar circle moldboard	✓		Interior lights	✓	
Circle drive slip clutch	✓		LED lighting		✓
Top adjust drawbar circle moldboard		✓	Entertainment Radio Ready	✓	
Circle saver		✓	Coat hook	✓	
ELECTRICAL			USB/auxiliary radio		✓
Sealed alternator	✓		Steering wheel	✓	
Reversing lights	✓		Communication radio mounting		✓
Breaker panel	✓		Lever controls	✓	
1,125 CCA heavy duty batteries	✓		Heated mirrors		✓
1,400 CCA extreme duty batteries		✓	Electric throttle control	✓	
Electric starter	✓		Front windshield wiper	✓	
			Rear wiper		✓
			Rear window screen		✓
			Cab storage	✓	

(continued on next page)

140 Standard and Optional Equipment

Standard and Optional Equipment (continued)

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

	Standard	Optional		Standard	Optional
SAFETY AND SECURITY			GUARDS		
Parking brake	✓		Front fenders for All-Wheel Drive		✓
Back up alarm	✓		Rear fenders		✓
Signaling/warning horn	✓		Front axle guard for All-Wheel Drive		✓
Warning beacon		✓	Transmission		✓
Rearview mirror	✓		Cover, under cab platform		✓
Rearview camera		✓	ATTACHMENTS		
Hydraulic brakes	✓		Counterweight		✓
Secondary steering system	✓		Push block		✓
Side view mirrors	✓		Front lift group		✓
Strategically placed walkways and grab rails	✓		Ripper		✓
SERVICE AND MAINTENANCE			Scarifier		✓
Ground level fuel fill	✓		Auxiliary hydraulic lines		✓
Grouped location for engine oil and fuel filters	✓		V-plow		✓
Extended Life Coolant	✓		One-way plow		✓
Radiator, cleanout access	✓				
TECHNOLOGY					
Cat Grade with Cross Slope		✓			
Cat Grade with Cross Slope Indicate		✓			
Digital Blade Slope Meter		✓			
Cat Grade Attachment Ready Option (ARO)		✓			
VisionLink®	✓				
Stable blade		✓			
Remote services		✓			

140 Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <https://www.caterpillar.com/en/company/sustainability>.

Engine

- The Cat® C9.3 engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

*Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.0 kg (4.4 lb) of refrigerant which has a CO₂ equivalent of 2.86 metric tonnes (3.15 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
 - Barium < 0.01%
 - Cadmium < 0.01%
 - Chromium < 0.01%
 - Lead < 0.01%

Sound Performance

Machine Sound Power Level – 110 dB(A) ISO 6395:2008

Operator Sound Pressure Level – 77 dB(A) ISO 6396:2008

- The dynamic spectator sound power level measurements are performed according to the dynamic test procedures that are specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- The dynamic operator sound pressure level measurements are performed according to the dynamic test procedures that are specified in ISO 6396:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed, with the cab doors and the cab windows closed. The cab was properly installed and maintained.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
 - ECO mode minimizes fuel consumption for light applications
 - Engine Idle Shutdown Timer reduces fuel burn, greenhouse gas emissions and unnecessary idle time by shutting down the machine after a pre-set idling period
 - Improve productivity with the Electronic Throttle Control which matches engine power and torque to application requirements
 - Extended maintenance intervals not only reduce downtime but decrease the amount of fluid and filters that are replaced over the life of the machine
 - The on-demand fan reduces fuel consumption and under-hood heat for longer component life
 - Improve jobsite efficiency with lower operating costs with Product Link™ and VisionLink® insights

Recycling

- The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	68.53%
Iron	17.11%
Uncategorized	5.08%
Mixed Metal and Nonmetal	3.40%
Nonferrous Metal	3.25%
Plastic	1.02%
Other	0.62%
Fluid	0.52%
Rubber	0.23%
Mixed Nonmetallic	0.21%
Mixed Metal	0.04%
Total	100.00%

- A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance End-of-Life value of the product. According to ISO 16714:2008 (Earthmoving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714:2008 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following value in the table may vary.

Recyclability – 97%

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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AEXQ2467-02 (12-2023)
Replaces AEXQ2467-01
Build Number 13A
(U.S. Tier 4 Final,
EU Stage V)



Motorgrader

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Permissions

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Search:

ID	Name	Phone	Email	Company Name	Date Submitted	Bid Amount	View Bid
3268	Kennon Ferguson	(601) 209-2670	kennon.ferguson@puckettmachinery.com	Puckett Machinery Co.	06-05-2024 10:09:19 am	\$366,948.00	

Showing 1 to 1 of 1 entries

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Puckett



MACHINE SALES QUOTATION

Jackson (601) 969-6000
 Gulfport (228) 832-1711
 Natchez (601) 442-1633
 Meridian (601) 483-4511
 Hattiesburg (601) 268-2000
 Brookhaven (601) 833-5115

_____ of _____ pages

Customer No:	
Company Name:	MADISON COUNTY
Contact:	
Phone No:	

Quote No:	
Date:	6/3/2024
Salesman:	FERGUSON
Machine Model:	140
Serial No:	
P. O. No:	

QTY	DESCRIPTION	PRICE
NEW	140 NEXT GEN CATERPILLAR MOTORGRADER PREMIUM CAB WITH A/C AND HEAT 14 FOOT MOLDBOARD JOYSTICK CONTROLS TIER 4 FINAL ENGINE COMFORT SUSPENSION SEAT PRODUCT LINK 14.00 X 24 TIRES EXTERNAL MIRRORS REAR CAMERA MID MOUNT SCARIFIER WORKING LIGHTS WITH TURN SIGNALS ACCUGRADE READY PRODUCT LINK 60 MONTH FULL WARRANTY AND TRAVEL AND MILEAGE	366,948.00
Total		

THIS QUOTE IS VALID FOR 30 DAYS
 PRODUCT AVAILABILITY
 _____ DAYS

SOURCEWELL CONTRACT # 032119-CAT

Accepted by: _____

MADISON COUNTY, MISSISSIPPI
INVITATION FOR BIDS
Motor Grader

The Madison County Board of Supervisors will receive un-priced proposals on the following:

1. Motor Grader

Un-priced proposals will be accepted until 10:00 a.m. on Friday, May 31, 2024 by electronic submission at <http://www.madison-co.com/bids> or in sealed envelope at the Chancery Clerk's Office, 125 West North Street, Canton, Mississippi. For any questions relating to the electronic submission process, please call Kesha Jackson at 601-855-5534.

Submitted un-priced proposals will be evaluated, and vendors submitting acceptable proposals will be invited to submit priced bids. Bidding will be held by electronic reverse auction on Wednesday, June 5, 2024, at 10:00 a.m. Bidders may come to the Office of Purchasing with a paper bid and receive technical assistance in entering their bid in the reverse auction.

Specifications for the Motor Grader are available on the bid page of the Madison County Board of Supervisors at: <http://www.madison-co.com/bids>. Additionally, specifications are on file in the Chancery Clerk's Office, Madison County Office Complex, 125 West North Street, Canton, Mississippi, 39046 and available during normal business hours. There is no charge for specifications obtained using either of these methods.

All bids must comply with the specifications provided. Madison County reserves the right to amend the specifications, as necessary, and agrees to notify all who have requested bid packets from the Madison County Board of Supervisors.

The Madison County Board of Supervisors reserves the right to extend the auction date if necessary, to complete the bid proposal pre-qualification process.

Electronic proposals must be submitted at <http://www.madison-co.com/bids>.

All in-person submitted un-priced proposals must be sealed and clearly labeled on the outside of the bid envelope as instructed in the bid package and delivered to the Chancery Clerk's Office, at 125 West North Street, Canton, Mississippi.

The Board of Supervisors reserves the right to reject any and all bids.

SUBMITTED:	MADISON COUNTY JOURNAL
FOR PUBLICATION ON:	Thursday, May 2, 2024 Thursday, May 9, 2024
PROOF OF PUBLICATION TO:	Madison County Chancery Clerk PO Box 404 Canton, MS 39046

Madison County Board of Supervisors
Bid Specifications for
New 2024 Model or Newer Motor Grader
 Complete by checking the following
 IF NOT COMPLIANT, state specifically the item being offered.

<u>Basic Specifications</u>	<u>YES</u>	<u>NO</u>	<u>OFFERED</u>
Machine shall be designed and built by the manufacturer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Base machine weight shall not be less than 37,420 lbs. (16974 kg). Weight shall include standard machine Configuration, lubricants, coolants, full fuel tank and Operator of 200 lbs. (91 kg).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Machine wheel base (distance from front axle to mid tandem) shall not be less than 241 in (6123 mm).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
The rear frame shall have two box section channels with an integrated bumper as standard.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
A toolbox shall be provided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
A Hydraulic Mid Mount Scarifier should be present just behind the front wheels, just in front of the blade.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<u>Engine</u>			
Engine shall be designed and built by the manufacturer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall be a turbo-charged, direct injection, four stroke 6-cylinder diesel engine.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall be certified EPA Tier 4 Final and European Union Stage IV.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall be electronically controlled for more efficient fuel injection and fuel burn.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall achieve rated power requirement with engine Displacement not less than 9.3L (568 In) for better performance and fuel economy.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Initial KF Date 4/24

	<u>YES</u>	<u>NO</u>	<u>OFFERED</u>
Engine enclosures and daily service points shall be accessible from ground level and grouped on the left side of the machine.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine fan shall automatically adjust fan speed via a variable hydraulic fan pump to meet engine cooling requirements thus reducing demand on the engine, putting more horsepower to the ground, reducing noise, improving fuel economy, and reducing heat.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall allow for at least 1000 hours of operation between oil changes. (with SOS sampling).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Powertrain/Transmission

Transmission shall be designed and built by the machine manufacturer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Transmission shall be a direct drive, power shift, countershaft type.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Transmission shall be equipped with built-in self-diagnostic capability.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Transmission shall have no less than 8 forward speeds and 6 reverse speeds (for added safety).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Transmission shall have 5 working gears between 0-10.6 mph (0-17.1 km/h), for dirt applications.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Automatic Differential Lock/Unlock feature shall be standard and shall not have speed, shuttle shifting or tandem spinning restrictions for engaging/disengaging. System must be load-sensing for optimal performance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Machine shall have no drive shafts that cross over the articulation hitch.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Initial FE Date 6/4/24

Steering & Implement Controls

YES **NO**

OFFERED

Steering wheel shall not be required to operate Machine, but joysticks.

The left 3-axis joystick shall control wheel lean with individual left and right wheel lean buttons as standard.

Primary steering shall be achieved via a left hand, multifunction, 3-axis, joystick as standard, using an intuitive steering control System that automatically adjusts steering sensitivity as machine ground speed increases.

Articulation to the right or left shall be achieved by a multifunction, 3-axis left joystick with the twist of such to the right or left by the left-hand, multifunction, 3-axis joystick.

An articulation return-to-center button on the left multifunction, 3-axis, joystick, shall return the machine to a straight frame Position from any articulation angle with the touch of a single button.

The right 3-axis joystick shall primarily control the Drawbar, Circle And Moldboard.

Joystick controls shall be mounted to adjustable pedestals, hard mounted to be cab floor, independent of the operator seat.

Brakes

Machine shall have primary and secondary service brakes

Parking brake shall be multi-disc, oil-cooled, spring-applied, hydraulically released, sealed, adjustment-free, and integrated into the transmission. Park brake shall not be externally located.

Parking brake shall be serviceable without removing the transmission

Service brakes shall be multi-disc, oil cooled and completely sealed they will also provide access to check and determine brake wear without removing or disassembling the brake assembly

Initial AF Date 6/21

Hydraulic System

YES **NO**

OFFERED

A standard triple redundant hydraulic relief system protect machine hydraulic components.

Hydraulic implement pump shall produce between 0 and 55.7 gal/min (210L/min) of oil flow at 2,150 RPM.

Hydraulic system shall be a closed center, load sensing type with a variable displacement, axial piston-type pump.

Hydraulic system shall be fully sealed, using Duo-cone and O-ring face seals to prevent leaks, contamination, and spillage.

The hydraulic tank shall have a baffling system to reduce potential pump cavitations.

The maximum hydraulic system pressure shall be no more Than 3,500 psi (24, 150 kPa)

A sight gauge will be provided for checking hydraulic reservoir fluid.

Hydraulic filter will have 1000 hour change filter interval

Tires and Rims

A 10 in (25.4 cm) by 24 in (60.96 cm) size 3-piece tire rim shall be available to provide mounting for 14.00R24 conventional tires

Operations Station

A 42,075 BTU/h (12.3 kW) heater shall have an integral pressurizer and four-speed fan along with A/C.

Cab shall have angled floor design allowing direct visibility to moldboard.

Seat shall be a cloth-covered suspension seat with, 3-inch (76 mm) retractable seat belts, with adjustments for fore-aft position, seat height, seat back angle, thigh support and lumbar support.

An enclosed cab with ROPS (Rollover Protective Structure) according to ISO 3471 shall be provided.

Machine shall have no less than 19 adjustable vents, positioned to direct air to front windows and operator.

Initial FS Date 6/4/24

Circle and Moldboard

YES **NO**

OFFERED

Drawbar, circle, and moldboard shall be controlled with a maximum of two multifunction, 3-axis joysticks as standard.

Drawbar wear strips shall be replaceable drop-in inserts made from nylon composite material, replaceable and adjustable from the top of the drawbar plate via removable cover plates.

The drawbar shall feature welded protective wear plates to prevent lift group contact with the primary drawbar structure.

The standard moldboard shall be at least 14ft (3.7m) long, 24 in (610 mm) high and no less than 7/8 in (22 mm) thick.

Moldboard shall have a bank slope angle capability of at least 90 degrees to both sides.

Top adjust DCM will have Moldboard wear strips shall be adjusted with lock screws, providing shim less adjustment capability both vertical and horizontal.

There shall be 3 sideshift anchor positions shall be provided for extended reach capability as standard.

Pinion Gear shall be separate from the Pinion Shaft to allow for a quick and easy serviceable design.

Serviceability and Warranty

Machine shall have a lockable swing-out cooling fan housing featuring a latch-style mechanism (shall not be of a bolted design) allowing easy access to cores. Ability to open/close shall be ground level accessible, eliminating need to climb on machine.

The dipstick for checking transmission fluid shall be at ground level

Hydraulic tank site gauge shall be readable from the ground
Engine primary and final fuel filters shall have 1000 hour service replacement interval with fluid sampling.

Engine oil filter shall be a 1000 hour change interval cartridge style filter.

Initial KE Date 6/14/24

	<u>YES</u>	<u>NO</u>	<u>OFFERED</u>
Engine primary and final fuel filters shall have 1000 hour service replacement interval.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Engine shall have primary fuel filter with water in filter (wif) sensor, quick release dual stage filter and primer pump.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cartridge style filters (engine oil filter, fuel filters) shall have ability to drain filter canisters prior to removal for cleaner and easier filter changes.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Machine will come with a Full Machine Bumper to Bumper Warranty for 60 months or 5000 hours, whichever comes first.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Machine will come with Supplemental Travel Time and Mileage coverage for any warrantable issues for 60 months or 5000 hours whichever comes first. County will not receive a bill for travel time and mileage for 60 months or 5000 hours for any type of warrantable failure during that Full Machine Warranty period of 60 months or 5000 hours whichever comes first by supporting Dealer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Selling Dealership shall have a full time certified instructor, demo operator available for safety and training purposes.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Initial KF Date 6/24/24

MANDATORY BID SHEET

COMPANY NAME: Pickett Machinery Co.

ADDRESS: 100 Caxupillon Dr Flowood Ms 39234

TELEPHONE: 601-209-2670

FAX NUMBER: _____

EMAIL: KENNON.FERGUSON@PICKETT-MACHINERY.COM

Kennon Ferguson 6/4/24
AUTHORIZED REPRESENTATIVE'S SIGNATURE DATE

KENNON FERGUSON 6/4/24
PRINTED AUTHORIZED REPRESENTATIVE'S NAME HERE

PROPOSAL SHEET MUST BE SIGNED AND DATED BY AN AUTHORIZED COMPANY REPRESENTATIVE

MUST INCLUDE PRODUCT SUMMARY, INCLUDING DETAILS OF ALL FEATURES AND OPTIONS OF PROPOSED VEHICLE



140

Motor Grader

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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140 Motor Grader Specifications

Engine		
Engine Model	Cat® C9.3	
Net Power ISO 9249/SAE J1349	186 kW	250 hp
Net Power All-Wheel Drive (AWD)	201 kW	270 hp
VHP Plus Range – Net (metric)	179-253 mph	
AWD Range – Net (metric)	179-273 mph	
Bore	115 mm	4.5 in
Displacement	9.3 L	567.5 in ³
Stroke	149 mm	5.9 in
Engine rpm	2,000	
Number of Cylinders	6	
Torque Rise – ISO 9294	44%	
Maximum Torque – ISO 9294	1245 N·m	918 lb-ft
Maximum Torque (AWD On)	1350 N·m	996 lb-ft
Derating Altitude	3962 m	13,000 ft
Derating Altitude AWD	3505 m	11,500 ft
Standard – Fan Speed	1,400 rpm	
Maximum – Fan Speed	1,550 rpm	
Minimum – Fan Speed	500 rpm	
Ambient Capacity	50° C	122° F

- The Cat® C9.3 engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Net Power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Rated speed at 2,000 rpm.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.*

140 Net Power			
Gear	VHP Plus – kW (hp)	AWD Off – kW (hp)	AWD On – kW (hp)
Forward			
1st	132 (177)	139 (186)	147 (197)
2nd	140 (187)	147 (197)	162 (217)
3rd	147 (198)	154 (207)	166 (223)
4th	155 (208)	158 (212)	170 (228)
5th	159 (213)	166 (223)	186 (249)
6th	167 (224)	170 (228)	201 (270)
7th	183 (245)	186 (249)	201 (270)
8th	186 (250)	186 (249)	201 (270)
Reverse			
1st	132 (177)	131 (176)	131 (176)
2nd	140 (187)	139 (186)	139 (186)
3rd-6th	147 (198)	147 (197)	147 (197)

140 Motor Grader Specifications

Powertrain

Forward/Reverse Gears	8 Forward/6 Reverse	
Transmission	Direct Drive Powershift	
High Idle Speed	2,150 rpm	
Low Idle Speed	800 rpm	
Air Cleaner	Dry	
Peak Torque at Minimum Fan	1138 N·m	839 lb-ft
Peak Torque at Minimum Fan AWD	1247 N·m	920 lb-ft

Tandems

Tandem Chain Pitch	50.8 mm	2 in
Height and Width	506 mm × 201 mm	20 in × 8 in
Oscillation Front Up	15°	
Oscillation Rear Up	22°	

Service Brakes

Type System	Dual Circuit Hydraulic	
Type Brake	Multiple Oil Disc	
Number of Brakes	4	
Number of Disc Assemblies (each)	6	
Size (outer diameter)	355 mm	14 in
Size (inner diameter)	255 mm	10 in
Lining Area Per Brake	5749 cm ²	891.1 in ²

Parking Brake

Type System	Hydraulic Actuated	
Type Brake	Multiple Oil Disc, Meets ISO 3450:2011	
Secondary Brakes	Dual Circuit Control System, Applies Two Service Brakes	

Operating Specifications

Top Speed Forward	48.4 km/h	30.1 mph
Top Speed Reverse	37.4 km/h	23.2 mph
Turning Radius, Outside Front Tires	7.6 m	24 ft 11 in
Steering Range	50° Left and Right	
Articulation Angle	18° Left and Right	
Forward		
1st	4.2 km/h	2.6 mph
2nd	5.7 km/h	3.6 mph
3rd	8.3 km/h	5.2 mph
4th	11.4 km/h	7.1 mph
5th	17.8 km/h	11.0 mph
6th	24.2 km/h	15.0 mph
7th	33.3 km/h	20.7 mph
8th	48.4 km/h	30.1 mph
Reverse		
1st	3.2 km/h	2.0 mph
2nd	6.1 km/h	3.8 mph
3rd	8.8 km/h	5.5 mph
4th	13.7 km/h	8.5 mph
5th	25.7 km/h	16.0 mph
6th	37.4 km/h	23.2 mph

- Machine speed measured at 2,150 rpm with 14.00R24 radial tires, no slip.

140 Motor Grader Specifications

Weight – Tandem

Gross Vehicle Weight –
Typically Equipped*

Total	19 198 kg	42,325 lb
Front Axle	5859 kg	12,917 lb
Rear Axle	5088 kg	11,216 lb

Gross Vehicle Weight – Base

Total	16 787 kg	37,009 lb
Front Axle	4430 kg	9,766 lb
Rear Axle	12 357 kg	27,242 lb

Gross Vehicle Weight –
Maximum Tested

Total	24 500 kg	54,013 lb
Front Axle	8820 kg	19,445 lb
Rear Axle	15 680 kg	34,568 lb

*Typically equipped operating weight is calculated with full fuel tank, coolant, lubricants, operator, push block, transmission guard, rear ripper/scarifier, 14.0R24 tires on multi-piece rims, and other equipment.

Major Component Weights

Base Machine	16 787 kg	37,009 lb
Canopy Open ROPS	-323 kg	-711 lb
All-Wheel Drive	873 kg	1,921 lb
Moldboard		
4267 mm × 610 mm × 22 mm (14 ft × 24 in × 7/8 in)	147 kg	323 lb
4267 mm × 686 mm × 25 mm (14 ft × 27 in × 1 in)	284 kg	625 lb
Guards		
Transmission	121 kg	266 lb
Front Fender	121 kg	266 lb
Blade Extension	113 kg	249 lb
Grader Bit	181 kg	400 lb
Mid-Mount Scarifier Package	917 kg	2,017 lb
Front Lift Group	680 kg	1,500 lb
Counterweight	427 kg	939 lb
Push Plate	895 kg	1,969 lb
Rear Ripper	1104 kg	2,429 lb
Front Scarifier	434 kg	956 lb

Weight – All-Wheel Drive (AWD)

Gross Vehicle Weight –
Typically Equipped*

Total	20 236 kg	44,613 lb
Front Axle	5859 kg	12,917 lb
Rear Axle	14 377 kg	31,696 lb

Gross Vehicle Weight – Base

Total	17 825 kg	39,297 lb
Front Axle	5198 kg	11,460 lb
Rear Axle	12 627 kg	27,837 lb

Gross Vehicle Weight –
Maximum Tested

Total	24 500 kg	54,013 lb
Front Axle	8820 kg	19,445 lb
Rear Axle	15 680 kg	34,568 lb

Hydraulic System

Type	Closed – Center	
Type Circuit	Parallel	
Pump	Type – Variable Piston	
Output* – @ 1,800 rpm	24 192 kPa	3,509 psi
	0-171	0-45.2
	L/min	gal/min

*Depending on system requirements.

Service Refill Capacities

Fuel Tank	378 L	100 gal
Circle Drive	7 L	1.8 gal
Engine Crankcase	30 L	7.9 gal
Transmission and Differential	74 L	19.5 gal
Cooling System	57 L	15 gal
Hydraulic System	55 L	14.5 gal
DEF Tank	12.5 L	3.3 gal
Front Wheel Spindle Bearing (each)	0.5 L	0.13 gal
All-Wheel Drive (AWD) Gearbox	7 L	1.8 gal

140 Motor Grader Specifications

Drawbar Circle Moldboard

	Standard		Top Adjust	
Range of Motion				
Lift Cylinders	2		2	
Maximum Depth of Cut	735 mm	28.9 in	715 mm	28.1 in
Maximum Lift Above Ground	480 mm	18.9 in	480 mm	18.9 in
Throat Clearance	119 mm	4.7 in	166 mm	6.5 in
Circle Center Shift Cylinder				
Center Shift Right	728 mm	28.7 in	728 mm	28.7 in
Center Shift Left	752 mm	29.6 in	695 mm	27.4
Moldboard Side Shift Cylinder				
Side Shift Left	663 mm	26.1 in	661 mm	26 in
Side Shift Right	512 mm	20.2 in	515 mm	20.3 in
Blade Tip Cylinder				
Maximum Blade Tip Forward	40°		40°	
Maximum Blade Tip Backward	5°		5°	
Circle Drive	360° of Blade Rotation			
Link Bar	7 Positions to adjust the drawbar circle moldboard range of motion			
Drawbar Shoes	6 with replaceable wear strips			

Moldboard

	Standard		Option 1		Option 2	
Width	3.7 m	12 ft	4.3 m	14 ft	4.3 m	14 ft
Height	594 mm	23.4 in	635 mm	25 in	682 mm	26.9 in
End Bit	152 mm	6 in	152 mm	6 in	152 mm	6 in
Cutting Edge	152 mm	6 in	203 mm	8 in	203 mm	8 in
Arc Radius	413 mm	16.3 in	413 mm	16.3 in	413 mm	16.3 in
Throat Clearance	124 mm	4.9 in	124 mm	4.9 in	89 mm	3.5 in

- 3.7 m (12 ft) moldboard is standard.

Circle

Sections	Rolled Ring Forging
Number of Teeth	64
Rotation	360°

140 Motor Grader Specifications

Maximum Shoulder Reach Outside of Tires

Blade	3.7 m (12 ft)		4.3 m (14 ft)	
Right	1928 mm	76 in	2233 mm	88 in
Left	1764 mm	69.4 in	2201 mm	86.7 in

- An additional 300 mm (11.8 in) of reach can be achieved to the right or left by changing the side shift mounting bracket on the 4.3 m (14 ft) blade.

Ripper

Ripping Depth Maximum	426 mm	16.8 in
Ripper Shank Holder	5	
Ripper Shank Holder Spacing	533 mm	21 in
Penetration Force	9440 kg	20,812 lb
Pryout Force	11 877 kg	26,184 lb
Pryout Force (All-Wheel Drive)	13 650 kg	30,093 lb
Machine Length Increase, Beam Raised	1031 mm	40.6 in

Standards

Rollover Protective Structure (ROPS)	ISO 3471:2008
Falling Object Protective Structure (FOPS)	ISO 3449:2005 Level II
Brakes	ISO 3450:2011
Steering	ISO 5010:2007

Sound Performance

Machine Sound Power Level – 110 dB(A)	ISO 6395:2008
Operator Sound Pressure Level – 77 dB(A)	ISO 6396:2008

- The dynamic spectator sound power level measurements are performed according to the dynamic test procedures that are specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- The dynamic operator sound pressure level measurements are performed according to the dynamic test procedures that are specified in ISO 6396:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed, with the cab doors and the cab windows closed. The cab was properly installed and maintained.

Scarifier

Front, V-Type: Working Width	1205 mm	47.4 in
Front, V-Type: 5 or 11 Tooth		
Working Width	1031 mm	40.6 in
Scarifying Depth, Maximum	467 mm	18.4 in
Scarifier Shank Holders	11	
Scarifier Shank Holder Spacing	116 mm	4.6 in
Rear		
Working Width	2133 mm	84 in
Scarifying Depth, Maximum	426 mm	16.8 in
Scarifier Shank Holders	9	
Scarifier Shank Holder Spacing	267 mm	10.5 in

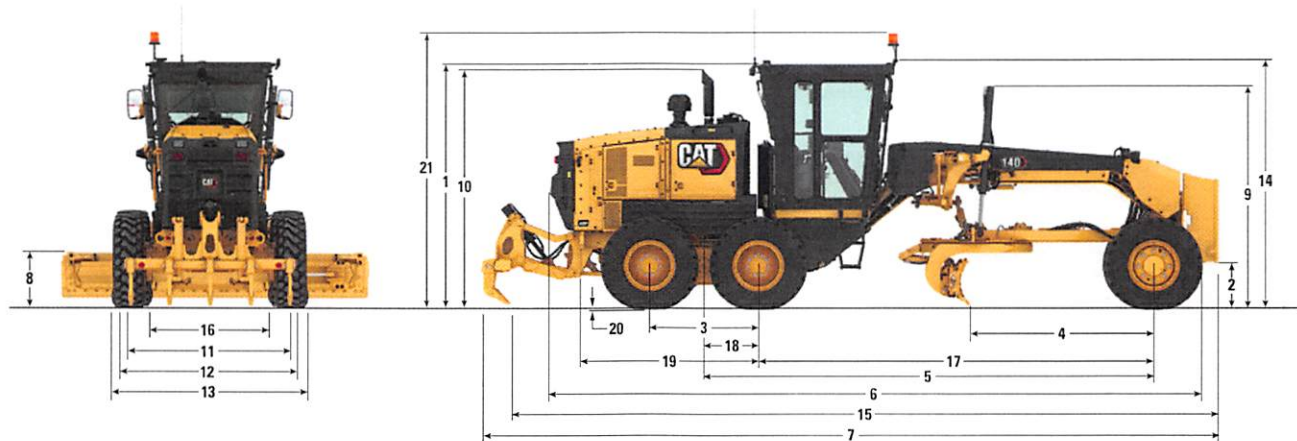
Electrical

Starting System Type	Direct Electric
Heavy Duty Battery	
CCA at 18°	1,125 amp
Volts	12V
Quantity	2
Extreme Duty Battery	
CCA at 18°	1,400 amp
Volts	12V
Quantity	2
Standard Alternator	115 amps at 24V
Heavy Duty Alternator	150 amps at 24V

140 Motor Grader Specifications

Dimensions

All dimensions are approximate.



Length of Machine*	10 100 mm	397.6 in
Maximum Height	3354 mm	148.8 in

*Typically equipped with push block and ripper.

Width	2480 mm	97.6 in
Basic Blade Width	3556 mm	140 in

1 Height – Top of Cab	3354 mm	132 in
2 Height – Front Axle Center	604 mm	23.7 in
3 Length – Between Tandem Axles	1497.5 mm	59 in
4 Length		
Front Axle to Moldboard (Non AWD)	2592 mm	102 in
Front AWD Axle to Moldboard (AWD)	2557 mm	100.7 in
5 Length		
Front Axle to Mid Tandem (Non AWD)	6169 mm	242.9 in
Front AWD Axle to Mid Tandem (AWD)	6134 mm	241.5 in
6 Length		
Front Tire to Rear of Machine (Non AWD)	8897 mm	350.3 in
Front Tire to Rear of Machine (AWD)	8862 mm	348.9 in
7 Length – Push Plate to Ripper	10 100 mm	397.6 in
8 Ground Clearance at Rear Axle	337 mm	13.3 in
9 Height to Top of Cylinders	3043 mm	119.8 in

10 Height to Exhaust Stack	3275 mm	128.9 in
11 Width – Tire Center Lines	2110 mm	83.1 in
12 Width – Outside Rear Tires	2464 mm	97 in
13 Width		
Outside Front Tires (Non AWD)	2480 mm	97.6 in
Outside Front Tires (AWD)	2594 mm	102.1 in
14 Maximum Height – with Attachments (Beacon in Shipment Position)	3413 mm	134.4 in
15 Length – Push Plate to Raised Ripper	9778 mm	385 in
16 Width – Inside Rear Tires	1711 mm	67.4 in
17 Length		
Front Axle to Articulation Hitch (Non AWD)	5325 mm	209.6 in
Front Axle to Articulation Hitch (AWD)	5290 mm	208.3 in
18 Length Rear Axle to Articulation Hitch	844 mm	33.2 in
19 Length – Rear Axle to Rear of Frame	1705 mm	67.1 in
20 Height – Tire Deflection at Performance Weight	65 mm	2.6 in
21 Maximum Height – with Attachments (Beacon in Operating Position)	3780 mm	149 in

140 Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ENGINE			CAB		
Cat C9.3 engine	✓		Vinyl seat	✓	
Snow precleaner		✓	ROPS, standard sound suppression	✓	
ECO mode	✓		Air suspension adjustable seat		✓
Extreme duty starter		✓	Information display screen	✓	
50° C (122° F) ambient capacity	✓		Open ROPS cab		✓
Reversing fan		✓	Heating, ventilation, and air conditioning (HVAC) system	✓	
All-Wheel Drive (AWD)		✓	Defrost fans		✓
Differential lock/unlock	✓		Halogen lighting	✓	
Engine idle shutdown timer	✓		Cup and bottle holders	✓	
Transmission, autoshift		✓	Implement lockout		✓
MOLDBOARD			Adjustable control console	✓	
Standard drawbar circle moldboard	✓		Interior lights	✓	
Circle drive slip clutch	✓		LED lighting		✓
Top adjust drawbar circle moldboard		✓	Entertainment Radio Ready	✓	
Circle saver		✓	Coat hook	✓	
ELECTRICAL			USB/auxiliary radio		✓
Sealed alternator	✓		Steering wheel	✓	
Reversing lights	✓		Communication radio mounting		✓
Breaker panel	✓		Lever controls	✓	
1,125 CCA heavy duty batteries	✓		Heated mirrors		✓
1,400 CCA extreme duty batteries		✓	Electric throttle control	✓	
Electric starter	✓		Front windshield wiper	✓	
			Rear wiper		✓
			Rear window screen		✓
			Cab storage	✓	

(continued on next page)

140 Standard and Optional Equipment

Standard and Optional Equipment (continued)

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

	Standard	Optional		Standard	Optional
SAFETY AND SECURITY			GUARDS		
Parking brake	✓		Front fenders for All-Wheel Drive		✓
Back up alarm	✓		Rear fenders		✓
Signaling/warning horn	✓		Front axle guard for All-Wheel Drive		✓
Warning beacon		✓	Transmission		✓
Rearview mirror	✓		Cover, under cab platform		✓
Rearview camera		✓	ATTACHMENTS		
Hydraulic brakes	✓		Counterweight		✓
Secondary steering system	✓		Push block		✓
Side view mirrors	✓		Front lift group		✓
Strategically placed walkways and grab rails	✓		Ripper		✓
SERVICE AND MAINTENANCE			Scarifier		✓
Ground level fuel fill	✓		Auxiliary hydraulic lines		✓
Grouped location for engine oil and fuel filters	✓		V-plow		✓
Extended Life Coolant	✓		One-way plow		✓
Radiator, cleanout access	✓				
TECHNOLOGY					
Cat Grade with Cross Slope		✓			
Cat Grade with Cross Slope Indicate		✓			
Digital Blade Slope Meter		✓			
Cat Grade Attachment Ready Option (ARO)		✓			
VisionLink®	✓				
Stable blade		✓			
Remote services		✓			

140 Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <https://www.caterpillar.com/en/company/sustainability>.

Engine

- The Cat® C9.3 engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.0 kg (4.4 lb) of refrigerant which has a CO₂ equivalent of 2.86 metric tonnes (3.15 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
 - Barium < 0.01%
 - Cadmium < 0.01%
 - Chromium < 0.01%
 - Lead < 0.01%

Sound Performance

Machine Sound Power Level – 110 dB(A) ISO 6395:2008

Operator Sound Pressure Level – 77 dB(A) ISO 6396:2008

- The dynamic spectator sound power level measurements are performed according to the dynamic test procedures that are specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- The dynamic operator sound pressure level measurements are performed according to the dynamic test procedures that are specified in ISO 6396:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed, with the cab doors and the cab windows closed. The cab was properly installed and maintained.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
 - ECO mode minimizes fuel consumption for light applications
 - Engine Idle Shutdown Timer reduces fuel burn, greenhouse gas emissions and unnecessary idle time by shutting down the machine after a pre-set idling period
 - Improve productivity with the Electronic Throttle Control which matches engine power and torque to application requirements
 - Extended maintenance intervals not only reduce downtime but decrease the amount of fluid and filters that are replaced over the life of the machine
 - The on-demand fan reduces fuel consumption and under-hood heat for longer component life
 - Improve jobsite efficiency with lower operating costs with Product Link™ and VisionLink® insights

Recycling

- The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	68.53%
Iron	17.11%
Uncategorized	5.08%
Mixed Metal and Nonmetal	3.40%
Nonferrous Metal	3.25%
Plastic	1.02%
Other	0.62%
Fluid	0.52%
Rubber	0.23%
Mixed Nonmetallic	0.21%
Mixed Metal	0.04%
Total	100.00%

- A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance End-of-Life value of the product. According to ISO 16714:2008 (Earthmoving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714:2008 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following value in the table may vary.

Recyclability – 97%

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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AEXQ2467-02 (12-2023)
Replaces AEXQ2467-01
Build Number 13A
(U.S. Tier 4 Final,
EU Stage V)

