BID SUBMITTAL FORM
Alabama County Joint Bid Program
Heavy Equipment – Bid Item: Medium Duty Motor Grader-Option B

Company Name: THOMPSON TRACTOR COMPANY

Address: PO BOX 10367

BIRMINGHAM AL 35202-0367

Bid Submitted by: JAY SMITH
(Name of company representative)

Title: SALES OPERATIONS MGR E-mail address: jaysmith@thompsontractor.com

Phone: 205-849-4242 Fax: _____

By submitting this bid, we agree:	Initials
The equipment model number identified below meets the bid specs for this bid item	
That the bid price will be honored for all counties for the period from **July 1, 2026** to **December 31, 2026.**	
The equipment will be delivered at the bid price to all counties participating in the joint bid program.	
The company acknowledges the freight preparation and delivery price is to be included in the total bid price for the standard machine.	
The company representative listed above will be the contact person for purchasing this bid item under the joint bid program.	
The bid is accompanied by a current catalog or model specification document for the model number identified below.	
The bid is accompanied by a copy of the manufacturer's standard warranty as required in the bid specifications.	
The bid includes the E-Verify documentation required by Alabama law.	
We comply with, and if awarded the contract, we will comply with, the requirements of Section 41-16-50 and Sections 41-16-160 to -166, Code of Alabama 1975.	
If awarded the bid, a performance bond will be provided upon request.	
The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP) for the Standard Machine.**	

Total Bid Price for Standard Machine: $ 340,795
(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs) *

Freight Preparation and Delivery: $ 11,886
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: $ 509,937

Equipment Model #: CATERPILLAR 140 (JOYSTICK STEERING)

Description: MOTOR GRADER

Signature of company representative submitting bid: _____

Title: SALES OPERATIONS MANAGER

***NOTE:** Award will be made based on the total cost of the **Standard Machine**. The total cost of the standard machine is to include freight preparation, delivery and standard warranty cost. Freight preparation and delivery will be excluded from the total bid price of the standard machine in determining the percentage discount for any available options.

BID SUBMITTAL FORM: OPTION COST SHEET

By submitting this bid, we agree:

To offer any available options at the percent difference between the Manufacturer's Suggested Retail Price Sheet and the actual bid price on the Standard Machine* JAS

The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the Standard Machine JAS

Equipment Model #: CATERPILLAR 140 (JOYSTICK STEERING)

Description: MOTOR GRADER

Signature of company representative submitting bid: Jay Smith

Title: SALES OPERATIONS MANAGER

***Note:** The percent difference between the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the standard machine as specified by these **Bid Specifications** and the actual price bid by the vendor will be calculated to determine the percentage discount to be applied to any available options. The bid price of the freight preparation and delivery cost shall be excluded in determining the percentage discount to be applied to available options. Any individual county may choose to add any available option to the standard machine at the percentage discount at the time of purchase.

BID SPECIFICATIONS
FOR
MEDIUM DUTY MOTOR GRADER – OPTION B

GENERAL

These specifications shall be construed as the minimum acceptable standards for a medium duty motor grader. Should the manufacturer's current published data or specifications exceed these standards, the manufacturer's standards shall be considered minimum and shall be furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished. Additionally, the machine offered for bid shall include all standard manufacturers' equipment. The motor graders must be a new current production model and shall meet all EPA and other applicable standards at the time of manufacture.

The use of specific names or numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer but is intended solely for the purpose of indicating the type, size, and quality of equipment considered best adapted to the uses of counties participating in this joint bid.

BID SUBMITTAL FORM

Each bidder must submit his or her bid on the Bid Submittal Form included in the invitation to bid package. All written warranties to be submitted shall be attached to the Bid Submittal Form.

BID PRICE

The price bid shall include all destination charges, delivery charges, title fees, rebates and all other applicable costs and refunds.

MANUALS

Each unit shall be provided with one (1) copy of the operator's manual, one (1) copy of the repair manual and one (1) copy of the current parts manual. Units will not be accepted for delivery until the manuals as outlined above are received by the purchaser.

REPLACEMENT PARTS AVAILABILITY

Parts must be available for 5 years or 7,500 hours of use for the piece of equipment bid. If replacement parts are not delivered within three (3) working days of an order being placed, the bidder will deliver an equivalent machine for the County to use at no cost to the County until such time as the parts are delivered to the County so it can affect repairs to its machine.

WARRANTY

Bidders shall submit a copy of the manufacturer's standard warranty. Warranty shall include service response time of a maximum of 36 hours within notification by county.

Yes ✓ No ___
Page #_____
or
Attachment ✓

ENGINE

Engine shall be a turbo-charged, direct injection, four-stroke, **6-cylinder** diesel engine and shall be electronically controlled for more efficient fuel injection and fuel burn. **Engine shall be designed and manufactured by the machine manufacture**

Yes X No ___
Page # Bid Spec p. 1

Engine displacement shall not be less than **427.cu. In.** and shall develop, as standard, a rated net power of at least **169 HP** in 1st gear, **176 HP** in 2nd gear, **182 HP** in 3rd gear, **192 HP** in 4th gear, **197 HP** in 5th gear, **205 HP** in 6th gear, **213 HP** in 7th gear, and **224 HP** in 8th gear.

Yes X No ___
Page # 3, Bid Spec p. 1

Engine shall be isolation/resilient mounted to minimize sound and vibration and shall meet currently required EPA emission regulations for manufacturer.

Yes X No ___
Page # Bid Spec p. 2

Engine compartment enclosure doors shall be lockable without the use of external locks and accessible from the ground. All daily service points shall be accessible from ground level and grouped together.

Yes I No ___
Page # X Bid Spec p. 2

Engine will increase its low idle to **1,000 rpm** when the battery voltage is below **24.5** volts for more than **5** minutes to ensure adequate system voltage and battery reliability.

Yes X No ___
Page # Bid Spec p. 2

STARTING SYSTEM

Shall be equipped with a **24-volt** electrical system. **100-amp** alternator.

Yes X No ___
Page # Bid Spec p. 9

TRANSMISSION - 8 Forward Speeds, 6 Reverse Speeds

Shall be designed and built by the machine manufacturer and shall be a direct drive, power shift, counter-shaft type transmission.

Yes X No ___
Page # Bid Spec p. 3

Shall be equipped with built-in self-diagnostic capability

Yes X No ___
Page # Bid Spec p. 2

A controlled throttle shifting system shall be standard to smooth directional gear changes without use of the inching pedal.

Yes X No ___
Page # Bid Spec p. 3

Electronic Throttle Control (cruise control) shall be standard and shall be controlled by a push button, located on a **3-axis** joystick as standard on the right joystick control for resuming and decreasing throttle set.

Yes X No ___
Page # Bid Spec p. 3

Direction control shall be a **3-position** rocker switch for selecting forward, neutral, and reverse, while gear selection shall be controlled by dual push-buttons for up-shifting and down-shifting, both of which shall be incorporated into a single, **3-axis**, multi-function, left-hand joystick control.

Yes X No ___
Page # Bid Spec p. 4

Differential Lock/Unlock shall be electro-hydraulically controlled, via a push-button, located on a single 3-axis, multi-function, right-hand joystick control.

Yes X No ___
Page # BID SPEC p. 3

Final drive shall be a planetary design.

Yes X No ___
Page # BID SPEC p. 3

Machine shall be equipped with an electronic inching pedal for improved modulation and machine control, and with electronic over-speed protection to protect the engine and transmission from over speeding.

Yes X No ___
Page # BID SPEC p. 3

Also to be equipped with transmission guard.

Yes X No ___
Page # BID SPEC p. 18

TANDEM

Machine to be equipped with differential lock/unlock electro-hydraulically controlled with a multi-disc design.

Yes X No ___
Page # BID SPEC p. 3

Tandems shall be capable if oscillating **15 degrees** front tandem up and **25 degrees** front tandem down, with full machine articulation and having no interference between tandem wheel and machine structure

Yes X No ___
Page # BID SPEC p. 5

CONTROLS AND HYDRAULICS

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

Yes X No ___
Page # BID SPEC p. 5

Implement valves shall be electro-hydraulic, designed and built by the machine manufacturer.

Yes X No ___
Page # BID SPEC p. 5

Lock valves shall be integrated into the main implement valve to prevent cylinder drift.

Yes X No ___
Page # BID SPEC p. 5

Blade lift cylinders shall have independent float capability, actuated by two, multi-functioning, 3**-axis** joystick controls and auxiliary controls inside the cab.

Yes X No ___
Page # BID SPEC p. 5

Hydraulic controls shall be joystick actuated.

Yes X No ___
Page # BID SPEC p. 5

BLADES

Machine shall be equipped with **14 ft.** long, **24 in** high and no less than **7/8** in thick moldboard with hydraulic side shift and tip control.

Yes X No ___
Page # 140 JOY PRICE PAGE

Blade shall also include reversible overlay end bits.

Yes X No ___
Page # 140 JOY PRICE PAGE

All blade functions shall be hydraulically or electronically actuated.

Yes X No ___
Page # B1D SPEC p.5

Blade lift accumulators shall be provided, to reduce vertical impact damage.

Yes X No ___
Page # B1D SPEC p.8

DRAWBAR AND CIRCLE

The circle shall be steel construction with **6** replaceable wear shoes.

Yes X No ___
Page # B1D SPEC p8

Rear drawbar shall be equipped with slip clutch designed to protect the circle, drawbar, and moldboard from shock when end of blade encounters, hidden objects.

Yes X No ___
Page # B1D SPEC p.7

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

Yes X No ___
Page # B1D SPEC p7

FRAME

Articulated type main frame.

Yes X No ___
Page # B1D SPEC p.1

Articulation joint shall have mechanical locking device to prevent frame articulation while servicing or transporting machine.

Yes X No ___
Page # B1D SPEC p10

Shall be that of a flanged box section type frame that runs from the front bolster to the articulation joint.

Yes X No ___
Page # B1D SPEC p.9

STEERING

Fully hydraulic, **2-cylinder** steering system, with front steering wheel angle not less than **47.5°** left or right.

Yes X No ___
Page # B1D SPEC p.3

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

Yes X No ___
Page # B1D SPEC p.4

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

Yes X No ___
Page # B1D SPEC p.4

Joystick Steering capabilities shall be ISO 5010

Yes X No ___
Page # BID SPEC p.3

Primary steering shall be achieved via a left-hand joystick, using an intuitive steering control system.

Yes X No ___
Page # BID SPEC p.3

Secondary steering shall be a standard feature.

Yes X No ___
Page # BID SPEC p.4

TIRES

All six wheels shall be **10 in** by **24 in** size multi-piece tire rims and shall provide mounting for **14.00 R24** tires.

Yes X No ___
Page # 140 JOY TIRE OPTION

Tires shall be Goodyear, Bridgestone/Firestone, or Michelin only **14.00 x R24 12PR** Bias Tires.

Yes X No ___
Page # 140 JOY TIRE OPTION

BRAKES

Service brakes shall be multi-disc, oil-cooled and completely sealed.

Yes X No ___
Page # BID SPEC p.4

OIL ANALYSIS

To be included at no cost of the duration of the warranty period selected at intervals recommended by the manufacturer's warranty and maintenance schedule.

Yes X No ___
Page # ———

WEIGHT (STANDARD OPERATING)

Base machine weight shall not be less than **37,420 lbs.** Weight shall include standard machine configuration, lubricants, coolants, full fuel tank and operator of **200lbs** This is factory specified operating weight only. No additional weights may be added for purpose of meeting these specifications.

Yes X No ___
Page # 3, BID SPEC p.1

140	MEDIUM DUTY MOTOR GRADER OPTION B	2026 Pricing
505-6960	140 MOTOR GRADER JOYSTICK STEERING	$469,975
680-0909	REGIONAL ARRANGEMENT	$0
243-6704	14' PLUS MOLDBOARD	$2,662
	BLADE, 14' X 27" X 1"	$0
233-7143	14' BLADE CUTTING EDGE	$376
233-7160	OVERLAY END BITS	$479
657-8163	TOP ADJUST DRAWBAR	$0
394-4521	COLD WEATHER PACKAGE (ETHER STARTING AID)	$984
626-4219	BLADE LIFT ACCUMULATORS	$6,069
324-5328	GRAVITY ENGINE OIL DRAIN	$0
626-6879	BASE 10 HYDRAULICS	$0
627-1553	HEAVY DUTY ELECTRIC STARTER	$0
548-8027	150 AMP ALTERNATOR	$0
585-6621	JUMP START RECEPTACLE	$0
599-0265	LOW FRONT HEADLIGHTS	$1,775
626-8101	NO WORK LIGHTS	$0
626-6868	REAR LIGHTS WITH TURN	$1,617
626-1559	WARNING LIGHT MOUNTING	$944
626-1521	CAB PLUS: (STANDARD GLASS)	$683
506-2611	STANDARD SEAT	$2,637
594-6360	SEAT BELT W/ INDICATOR	$0
641-6876	REAR VISION CAMERA	$2,188
466-1323	OUTSIDE MOUNTED MIRRORS	$638
626-1552	RADIO WITH BLUETOOTH	$755
303+3513	PRODUCT LINK, CELLULAR PLE643/743	$0
676-0280	CAT GRADE W/ CROSS SLOPE	$0
594-9610	SWING OUT FAN SUPPORT	$0
626-6874	R134A REFRIGERANT	$0
644-4880	COOLANT	$0
252-0679	14.0R24 MX XGLA2 * G2 MP MICHELIN	$13,025
	RADIAL TIRES WITH MULTI-PIECE RIMS	$0
585-4527	NO HITCH	$0
548-5882	GP FILM	$0
421-8926	SERIALIZED TECHNICAL MEDIA KIT	$0
618-6161	TRANSMISSION GUARD	$4,427
580-0241	ADDITIONAL REAR STEP	$392
521-3250	CIRCLE SAVER	$311
0P-2918	STORAGE PROTECTION	$0
0P-2265	ROLL ON - ROLL OFF	
	TOTAL BID PRICE FOR STANDARD MACHINE	**$340,795**
	FREIGHT PREPARATION AND DELIVERY	**$11,886**
	TOTAL MANUFACTURER'S SUGGESTED RETAIL PRICE FOR STANDARD MACHINE	**$509,937**

USE	REF NO.	LANE 2 / 3 MANDATORY	Ship Weight lbs	LIST PRICE AT DEALER

LANE SELECTION

LANE SELECTION

	0P-9002	LANE 2 ORDER	0	NC
		Only for dealers enrolled in the Base Orders Management (BOM) program.		
	0P-9003	LANE 3 ORDER	0	NC

REGIONAL PACKAGES

REGIONAL PACKAGES

L	680-0909	REGIONAL PACKAGE, GENERAL JOY	0	NC
		Provides identification PIN PLATE.		

PERFORMANCE PACKAGES

MOLDBOARD PACKAGES

L	243-6702	MOLDBOARD, 12'	0	NC
		Moldboard 12- x 24- x 7/8- (3658 x 610 x 22mm) with hydraulic side shift		
L	243-6703	MOLDBOARD, 14' BASIC	166	
		Moldboard 14- x 25- x 7/8- (4267 x 635 x 22mm) with hydraulic side shift		
L	243-6704	MOLDBOARD, 14' PLUS	460	
		Moldboard 14- x 27- x 1- (4267 x 686 x 25mm) with hydraulic side shift		

CUTTING EDGE & GRADER BITS

L	233-7139	CUTTING EDGE, 12' BLADE	44	NC
		6" x 5/8" (152 x 16 mm) curved cutting edge.		
		ONLY FOR USE WITH: 243-6702 MOLDBOARD, 3.7M		
L	233-7143	CUTTING EDGE, 14' BLADE	55	
		8- x 3/4" (203 x 19 mm) curved cutting edge		
		ONLY FOR USE WITH: 243-6703 MOLDBOARD, 4.3M BASIC 243-6704 MOLDBOARD, 4.3M PLUS		
L	646-1355	GRADERBIT2 STANDARD BIT 14	0	
		For use in Lane 3 only		
		Serrated edge with 70 replaceable carbide tipped narrow bits with a tool-less retention system.		
		ONLY FOR USE WITH: 243-6703 MOLDBOARD, 4.3M BASIC 243-6704 MOLDBOARD, 4.3M PLUS		
L	646-1531	GRADERBIT2 WIDE BIT 14	0	
		For use in Lane 3 only		
		Straight edge with 70 replaceable carbide tipped wide bits with a tool-less retention system.		
		ONLY FOR USE WITH: 243-6703 MOLDBOARD, 4.3M BASIC 243-6704 MOLDBOARD, 4.3M PLUS		

END BIT & OVERLAY

L	233-7148	END BITS, STANDARD	0	NC
		Moldboard end bits, standard, without overlay.		

USE	REF NO.	LANE 2 / 3 MANDATORY	Ship Weight lbs	LIST PRICE AT DEALER

LANE SELECTION

LANE SELECTION

	0P-9002	LANE 2 ORDER Only for dealers enrolled in the Base Orders Management (BOM) program.	0	NC
	0P-9003	LANE 3 ORDER	0	NC

REGIONAL PACKAGES

REGIONAL PACKAGES

L	680-0909	REGIONAL PACKAGE, GENERAL JOY Provides identification PIN PLATE.	0	NC

PERFORMANCE PACKAGES

MOLDBOARD PACKAGES

L	243-6702	MOLDBOARD, 12' Moldboard 12- x 24- x 7/8- (3658 x 610 x 22mm) with hydraulic side shift	0	NC
L	243-6703	MOLDBOARD, 14' BASIC Moldboard 14- x 25- x 7/8- (4267 x 635 x 22mm) with hydraulic side shift	166	
L	243-6704	MOLDBOARD, 14' PLUS Moldboard 14- x 27- x 1- (4267 x 686 x 25mm) with hydraulic side shift	460	

CUTTING EDGE & GRADER BITS

L	233-7139	CUTTING EDGE, 12' BLADE 6" x 5/8" (152 x 16 mm) curved cutting edge. ONLY FOR USE WITH: 243-6702 MOLDBOARD, 3.7M	44	NC
L	233-7143	CUTTING EDGE, 14' BLADE 8- x 3/4" (203 x 19 mm) curved cutting edge ONLY FOR USE WITH: 243-6703 MOLDBOARD, 4.3M BASIC 243-6704 MOLDBOARD, 4.3M PLUS	55	
L	646-1355	GRADERBIT2 STANDARD BIT 14 For use in Lane 3 only Serrated edge with 70 replaceable carbide tipped narrow bits with a tool-less retention system. ONLY FOR USE WITH: 243-6703 MOLDBOARD, 4.3M BASIC 243-6704 MOLDBOARD, 4.3M PLUS	0	
L	646-1531	GRADERBIT2 WIDE BIT 14 For use in Lane 3 only Straight edge with 70 replaceable carbide tipped wide bits with a tool-less retention system. ONLY FOR USE WITH: 243-6703 MOLDBOARD, 4.3M BASIC 243-6704 MOLDBOARD, 4.3M PLUS	0	

END BIT & OVERLAY

L	233-7148	END BITS, STANDARD Moldboard end bits, standard, without overlay.	0	NC

USE	REF NO.	LANE 2 / 3 MANDATORY	Ship Weight lbs	LIST PRICE AT DEALER

TIRES, RIMS, AND WHEELS

TIRES

**To calculate tire loads with machine attachments, please reference the MG Tire Selection Pocket Guide (media #AEXQ0403),

Available on the Electronic Sales Library.
All tire selections should be made with consideration for planned machine attachments (OEM and aftermarket) and their additional weight. Each tire has a maximum load rating that is not to be exceeded. The tire selection should be based on the maximum of all tire position loads on the machine. Assistance for calculating the highest tire load can be found in the Tire Load Worksheet in the back of the Caterpillar Motor Graders Tire Selection Pocket Guide. Failure to abide by the load ratings of the tires without first consulting the local tire supplier representative could result in nullification of the tire warranty

TIRES (TND)

MICHELIN

L 252-0679 **TIRES,14.0R24 MX XGLA2 * G2 MP** 1,069
Michelin XGLA2 1* on 10" x 24" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (7824 lbs) 3550 kg.**

L 252-0701 **TIRES, 14.0 R24 MX XSNO + *G2 MP.** 1,282
SUITABLE FOR SNOW
Michelin XSNO 1* on 10" x 24" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (7824 lbs) 3550 kg.**

L 254-7971 **TIRES, 17.5 R25 MX XTLA *L2 SP** 979
For use in Lane 2 only
Michelin XTLA 1* on 13" x 25" single piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

L 252-0771 **TIRES, 17.5R25 MX XTLA * L2 MP** 1,371
Michelin XTLA 1* on 14" x 25" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

L 252-0777 **TIRES,17.5R25 MX XSNO+ * G2 MP.** 1,093
SUITABLE FOR SNOW
Michelin XSNO+ 1* on 14" x 25" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

BRIDGESTONE

L 648-0073 **TIRES, 14.0R24 BS VSWAS G2 MP** 0
Bridgestone VSWAS 1* on 10" x 24" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIREFOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

USE	REF NO.	LANE 2 / 3 MANDATORY	Ship Weight lbs	LIST PRICE AT DEALER

TIRES, RIMS, AND WHEELS (CONT.)

BRIDGESTONE (Cont.)

L	252-0714	**TIRES, 14.0 R24 BS VKT * G2 MP**	1,540
		Bridgestone VKT 1* on 10" x 24" multi-piece rims.	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING 3650 kg (8,045 lbs).**	
L	252-0720	**TIRES, 14.0R24 BS VUT * L2 MP**	1,012
		Bridgestone VUT 1* on 10" x 24" multi-piece rims.	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**	
L	252-0775	**TIRES, 17.5R25 BS VKT * D2A MP**	1,810
		Bridgestone VKT 1* on 14" x 25" multi-piece rims.	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**	
L	648-0075	**TIRES, 17.5R25 BS VSWAS G2 MP**	0
		Bridgestone VSWAS 1* on 14" x 25" multi-piece rims.	
		SUITABLE FOR SNOW	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**	
L	654-9801	**TIRES, 550/65R25 BS VTS *L3 MP**	0
		For availability please contact facility before placing the order	
		Offers optimum traction and low ground pressure for fine grading applications.	
		Bridgestone VTS 1* on 14" x 25" multi-piece rims.	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.	

GOODYEAR

L	612-1920	**TIRES,17.5-25 16PR GY SGL L2/G**	0
		Goodyear SGL D/L-2A 16PR on 14x25 multi-piece rims load rating	

MAXAM

L	578-9460	**TIRES 14.00R24 MA MS202 * MP**	0
		Maxam MS202 2* on 14- x 25- multi-piece rims.	
		SUITABLE FOR SNOW	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8600 lbs) 3900kg.*	
L	578-9458	**TIRES 17.5R25 MA MS202 ** MP**	0
		Maxam MS202 2* on 14- x 25- multi-piece rims.	
		SUITABLE FOR SNOW	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8600 lbs) 3900kg.*	

MICHELIN

L	249-7845	**TIRES,14.0R24 MX XSNO+ * G2 MP**	1,261
		SUITABLE FOR SNOW	
		Michelin XSNO 1* on 10" x 24" multi-piece rims.	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (7824 lbs) 3550 kg.**	
L	252-0681	**TIRES,14.0R24 MX XGLA2 * G2 MP**	1,048
		Michelin XGLA2 1* on 10" x 24" multi-piece rims.	
		THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (7824 lbs) 3550 kg.**	

USE	REF NO.	LANE 2 / 3 MANDATORY	Ship Weight lbs	LIST PRICE AT DEALER

TIRES, RIMS, AND WHEELS (CONT.)

MICHELIN (Cont.)

L 252-0773 **TIRES, 17.5R25 MX XTLA * L2 MP** 268
Michelin XTLA 1* on 14" x 25" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

L 252-0779 **TIRES,17.5R25 MX XSNO+ * G2 MP.** 903
SUITABLE FOR SNOW
Michelin XSNO+ 1* on 14" x 25" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

BRIDGESTONE

L 648-0078 **TIRES, 14.0R24 BS VSWAS G2 MP** 0
Bridgestone VSWAS 1* on 10" x 24" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

L 252-0716 **TIRES, 14.0R24 BS VKT * G2 MP** 1,519
Bridgestone VKT 1* on 10" x 24" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

L 252-0722 **TIRES, 14.0R24 BS VUT * L2 MP** 991
Bridgestone VUT 1* on 10" x 24" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

L 249-7841 **TIRES, 17.5R25 BS VKT * D2A MP** 1,620
Bridgestone VKT 1* on 14" x 25" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

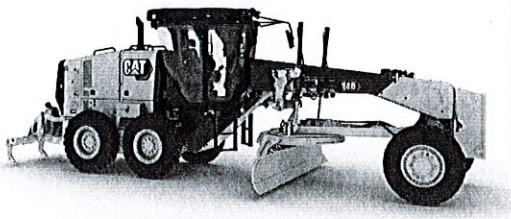
L 648-0080 **TIRES, 17.5R25 BS VSWAS G2 MP** 0
SUITABLE FOR SNOW
Bridgestone VSWAS 1* on 14" x 25" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

L 600-4199 **TIRES, 550/65R25 BS VTS *L3 MP** 0
For availability please contact facility before placing the order
Offers optimum traction and low ground pressure for fine grading applications.
Bridgestone VTS 1* on 14" x 25" multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8045 lbs) 3650 kg.**

MAXAM

L 578-9463 **TIRES 14.00R24 MA MS202 * MP** 0
SUITABLE FOR SNOW
Maxam MS202 1* on 10- x 24- multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8377 lbs) 3800kg.**

L 578-9462 **TIRES 17.5R25 MA MS202 ** MP** 0
SUITABLE FOR SNOW
Maxam MS202 2* on 14- x 25- multi-piece rims.
THE TIRE MANUFACTURER DOES NOT RECOMMEND THIS TIRE FOR INDIVIDUAL TIRE LOADS EXCEEDING (8600 lbs) 3900kg.**



140
Motor Grader

Technical Specifications

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

Table of Contents

CAT®

140 Motor Grader Specifications

All data applies to all 140 configurations (Non-AWD, AWD, LVR, and JS) unless otherwise noted.

Engine

Engine Model	Cat® C7.1	
Net Engine Power Range (Tandem)		
ISO 9249/SAE J1349	94-174 Kw	126-233 hp
Net Engine Power Range (AWD)		
ISO 9249/SAE J1349	98-194 Kw	131-248 hp
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7.01 L	427.8 in^3
Torque Rise (Tandem)	29%	
Torque Rise (AWD)	28%	
Maximum Torque (Tandem)	1070 N•m	789.2 lbf-ft
Maximum Torque (AWD)	1159 N•m	854.9 lbf-ft
Derating Altitude (Tandem)	4500 m	14,764 ft
Derating Altitude (AWD)	3000 m	9,843 ft
Rated Speed	2,000 rpm	
Number of Cylinders	6	
Idle Speed		
High Idle Speed	2,150 rpm	
Low Idle Speed (1F-8F and 1R-6R)	800 rpm	
Low Idle Speed (Hibernate 7 finish gear)	750 rpm	
Maximum Altitude at Full Power	4500 m	14,764 ft
Non-AWD	4500 m	14,764 ft
AWD	3000 m	9,843 ft

- Advertised power is tested per the specified standard in effect at the time of manufacture.
- See page 10 for Environmental Declarations and Sustainability information.
- Net power available at the flywheel when the engine is equipped with fan, air cleaner, aftertreatment, and alternator with engine 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) and are compatible* with 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.

* While Caterpillar engines are compatible with these alternative fuels, some regions may not allow their use.

** Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.

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

Powertrain

Forward/Reverse Gears	9 Forward/6 Reverse including finish gear
Transmission	Direct Drive Powershift
High Idle Speed	2,150 rpm
Low Idle Speed	800 rpm
Air Cleaner	Dry
Brakes	Type System
Service	Dual Circuit Hydraulic
Service, Surface Area – Gross area per machine	23,000 cm^2
Service, Surface Area – Net Area (accounting for grooves)	16,370 cm^2
Parking	Spring Apply Hydraulic Release
Secondary	Dual Circuit Hydraulic

Hydraulic System

Type (Implement/Steering/Brake)	Closed – Center	
Type (AWD)	Closed – Center	
Circuit Type	Parallel	
Pump Type	Variable Piston	
Pump Output	24,150 kPa at 2,000 rpm	3,503 psi at 2,000 rpm
System Flow for Implements, Steering, and Brake Pump		
74cc	0-148 L/min	0-39.09 gal/min
100cc (if equipped with reversing fan)	0-200 L/min	0-52.83 gal/min
Maximum System Pressure	25500 kPa	3698 psi
Reservoir Tank Capacity	60 L	15.85 gal
Standby Pressure	5000-6000 kPa	725-870 psi

*Pump output measured at 2,000 rpm rated speed

140 Motor Grader Specifications

All data applies to all 140 configurations (Non-AWD, AWD, LVR, and JS) unless otherwise noted.

Operating Specifications

Top speed forward	48.3 km/h	30.1 mph
Top speed reverse	38.1 km/h	23.7 mph
Turning Radius, Outside Front Tires	7.5 m	295.3 in
Steering Range	50° Left and Right	
Articulation Angle	20° Left and Right	
Front Wheel Lean	18° Left and Right	
Total Oscillation	32°	
Forward		
Finish Gear (FG)	3.0 km/h	1.9 mph
1st	4.1 km/h	2.6 mph
2nd	5.6 km/h	3.5 mph
3rd	8.2 km/h	5.1 mph
4th	11.3 km/h	7.0 mph
5th	17.7 km/h	11.0 mph
6th	24.1 km/h	15.0 mph
7th	33.2 km/h	20.6 mph
8th	48.3 km/h	30.1 mph
Reverse		
1st	3.3 km/h	2.0 mph
2nd	6.1 km/h	3.8 mph
3rd	8.9 km/h	5.5 mph
4th	14.0 km/h	8.7 mph
5th	26.2 km/h	16.3 mph
6th	38.1 km/h	23.7 mph

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

Operating Weight – U.S. EPA Tier 4 Final/Stage V

Weight, Typically Equipped, Lever Configuration, Tandem (Non-AWD)	19 127 kg	42,168 lb
Front Axle:	5425 kg	11,960 lb
Rear Axle:	13 702 kg	30,208 lb
Weight, Typically Equipped, Lever Configuration (AWD)	19 631 kg	43,279 lb
Front Axle:	5579 kg	12,300 lb
Rear Axle:	14 052 kg	30,979 lb
Weight, Typically Equipped, Joystick Configuration, Tandem (Non-AWD)	19 297 kg	42,543 lb
Front Axle:	5345 kg	11,784 lb
Rear Axle:	13 952 kg	30,759 lb
Weight, Typically Equipped, Joystick Configuration (AWD)	19 730 kg	43,497 lb
Front Axle:	5495 kg	12,114 lb
Rear Axle:	14 235 kg	31,383 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.

Power to the Ground

Next Gen 140 Motor Grader constant net power is a true constant net. No matter the ambient condition or load, power to the ground is constant for a given engine speed and gear.

Non-AWD					AWD			
	ISO:9249 Net		Power to the Ground*		ISO:9249 Net		Power to the Ground*	
Finish Gear	94 kW	126 hp	67 kW	90 hp	98 kW	131 hp	68 kW	91 hp
1F	126 kW	169 hp	95 kW	127 hp	132 kW	177 hp	95 kW	127 hp
2F	131 kW	176 hp	98 kW	131 hp	144 kW	193 hp	104 kW	139 hp
3F	136 kW	182 hp	99 kW	133 hp	155 kW	208 hp	108 kW	145 hp
4F	143 kW	192 hp	101 kW	135 hp	164 kW	220 hp	108 kW	145 hp
5F	147 kW	197 hp	101 kW	135 hp	173 kW	232 hp	110 kW	148 hp
6F	153 kW	205 hp	98 kW	131 hp	179 kW	240 hp	108 kW	145 hp
7F	159 kW	213 hp	92 kW	123 hp	188 kW	252 hp	106 kW	142 hp
8F	167 kW	224 hp	80 kW	107 hp	186 kW	249 hp	88 kW	118 hp

*Performance variable fan speed 90%.

140 Motor Grader Specifications

All data applies to all 140 configurations (Non-AWD, AWD, LVR, and JS) unless otherwise noted.

Electrical

Starting System Type	Direct Electric
Heavy Duty Battery	
CCA at –18°	900 amp
Volts	12V
Quantity	2
Extreme Duty Battery (Standard Weather)	
CCA at –18°	1,125 amp
Volts	12V
Quantity	2
Extreme Duty Battery (Cold Weather Plus)	
CCA at –18°	1,400 amp
Volts	12V
Quantity	2
Basic Alternator	115 amps at 24V
Maximum Alternator	150 amps at 24V
Heavy Duty Alternator	200 amps at 24V

Service Refill Capacities

Standard Circle Drive	7 L	1.8 gal
High Performance Circle Drive	9.5 L	2.5 gal
Cooling System	43 L	11.4 gal
Diesel Exhaust Fluid (DEF) Tank	17 L	4.5 gal
Engine Crankcase	20 L	5.3 gal
Fuel Tank	371 L	98.0 gal
Hydraulic System	60 L	15.9 gal
Tandem Housing (each)	70 L	18.5 gal
Transmission and Differential	68 L	18.0 gal

Moldboard

Moldboard (Size)	**12 ft Moldboard**		**14 ft Moldboard**		**14 ft Plus Moldboard**	
Height	609.5 mm	24.0 in	609.5 mm	2.0 ft	686 mm	27.0 in
Width	3.7 m	12.1 ft	4.3 m	14.1 ft	4.3 m	14.1 ft
Thickness	22 mm	0.9 in	22 mm	0.9 in	25 mm	1.0 in
Arc Radius	413 mm	16.3 in	413 mm	16.3 in	413 mm	16.3 in
Throat Clearance	125 mm	4.9 in	117 mm	4.6 in	83 mm	3.3 in
Cutting Edge						
Height	152.4 mm	6.0 in	203.2 mm	8.0 in	203.2 mm	8.0 in
Width	1.8 m	5.9 ft	2.1 m	6.9 ft	2.1 m	6.9 ft
Thickness	15.9 mm	0.6 in	19 mm	0.7 in	19 mm	0.7 in
Height (Cutting Edges with Moldboard)	535.3 mm	21.1 in	563 mm	22.2 in	563 mm	22.2 in
Width (Cutting Edges with Moldboard)	3.7 m	12.1 ft	4.3 m	14.1 ft	4.3 m	14.1 ft
End Bit						
Height	449.2 mm	17.7 in	449.2 mm	17.7 in	511.2 mm	20.1 in
Width	152.4 mm	6.0 in	152.4 mm	6.0 in	235 mm	9.3 in
Thickness	15.9 mm	0.6 in	15.9 mm	0.6 in	12.5 mm	0.5 in
Height (Cutting edges with Moldboard)	553.6 mm	21.8 in	553.6 mm	21.8 in	577.2 mm	22.7 in
Width (Cutting edges with Moldboard)	3.7 m	12.1 ft	3.7 m	12.1 ft	4.3 m	14.1 ft

140 Motor Grader Specifications

All data applies to all 140 configurations (Non-AWD, AWD, LVR, and JS) unless otherwise noted.

Drawbar and Circle

Range of Motion	Standard
Circle Drive	360° of Blade Rotation
Link Bar	7 Positions to adjust the drawbar circle moldboard range of motion
Drawbar Shoes	4 with replaceable wear strips

Standard Circle and Drawbar

Circle		
Section	Rolled Ring Forging	
Outside Diameter	1530 mm	60.2 in
Number of Teeth	64	
Rotation	360° when equipped with Cat Grade	

Drawbar		
Height	152.4 mm	6.0 in
Width	76.2 mm	3.0 in
Thickness	12.7 mm	0.5 in
Shoes	6 - with replaceable wear strips	
Bearing	N/A	

High Performance Circle and Drawbar

Circle		
Section	Welded Ring	
Outside Diameter	1202 mm	47.3 in
Number of Teeth	110	
Rotation	Right 70°	Left 70°

Drawbar		
Height	152.4 mm	6.0 in
Width	76.2 mm	3.0 in
Thickness	12.7 mm	0.5 in
Shoes	N/A	
Bearing	320 Hex Bearing	

140 Motor Grader Specifications

All data applies to all 140 configurations (Non-AWD, AWD, LVR, and JS) unless otherwise noted.

Standards

Cab Rollover Protective Structure (ROPS)	ISO 3471:2008
Cab Fallover Protective Structure (FOPS)	ISO 3449:2005, Level II
Brakes	ISO 3450:2011; AIS-143:2018
Steering	ISO 5010:2019*

Sound Standards

Sound	ISO 6395:2008 ISO 6396:2008
Spectator Sound Level	105 dB(A)
Operator Sound Level	69 dB(A)

- 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 machine was equipped with sound suppression system.
- 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. The machine was equipped with sound suppression system.

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf. Refer to the machine labeling for identification of the gas.
  - If equipped with R134a (Global Warming Potential = 1430), the system contains 1.6 kg (3.5 lb) of refrigerant which has a CO_2 equivalent of 2.288 metric tonnes (2.521 tons).

Rear Ripper/Scarifer

Ripping Depth Maximum	424 mm	16.7 in
Ripper Shank Holder	5	
Ripper Shank Holder Spacing		
Minimum	523.4 mm	20.6 in
Maximum	543.3 mm	21.4 in
Scarifier Depth Maximum	264 mm	10.4 in
Scarifier Shank Holders	9	
Scarifier Shank Spacing		
Minimum	255.7 mm	10.1 in
Maximum	277.7 mm	10.9 in
Penetration Force		
Non-AWD	84.6 kN	19018.8 lbf
AWD	84.6 kN	19018.8 lbf
Pryout Force		
Non-AWD	104 kN	23380. lbf
AWD	121.4 kN	27291.8 lbf
Machine Length Increase, Beam Raised	649.2 mm	25.6 in

Scarifier

Front, V-Shape Carriage		
Working Width	1205 mm	47.4 in
Scarifying Depth, Maximum	467 mm	18.4 in
Scarifier Shank Holders	5 / 11	
Scarifier Shank Holder Spacing	116 mm	4.6 in
Mid, V-Shape Carriage		
Working Width	1781 mm	70.1 in
Scarifying Depth, Maximum	292 mm	11.5 in
Scarifier Shank Holders	13	
Scarifier Shank Holder Spacing	116 mm	4.6 in
Mid-Straight Carriage		
Working Width	2486 mm	97.9 in
Scarifying Depth, Maximum	283.8 mm	11.2 in
Scarifier Shank Holders	19	
Scarifier Shank Holder Spacing	114.3 mm	4.5 in

* When equipped with optional secondary steering

140 Motor Grader Specifications

All data applies to all 140 configurations (Non-AWD, AWD, LVR, and JS) unless otherwise noted.

BLADE RANGE (NON-AWD)

	STANDARD		TOP ADJUST		HIGH PERFORMANCE CIRCLE	
Circle centershift with 14 ft moldboard						
Left	724 mm	28.5 in	724 mm	28.5 in	724 mm	28.5 in
Right	740 mm	29.1 in	740 mm	29.1 in	740 mm	29.1 in
Moldboard side shift with 17.5/R25 MX12 tires						
Left	821 mm	32.3 in	958 mm	37.7 in	958 mm	37.7 in
Right	947 mm	37.3 in	815 mm	32.1 in	815 mm	32.1 in
Maximum shoulder reach outside tires (12 ft moldboard)						
Left	1830 mm	72.0 in	1973 mm	77.7 in	1973 mm	77.7 in
Right	1948 mm	76.7 in	1797 mm	70.7 in	1797 mm	70.7 in
Maximum shoulder reach outside of tires (14 ft moldboard)						
Right	2496 mm	98.3 in	2632 mm	103.6 in	2632 mm	103.6 in
Left	2612 mm	102.8 ft	2482 mm	97.7 in	2482 mm	97.7 in
Maximum blade position angle (both sides)			104° (L) / 101.7° (R)			
Maximum lift above ground	447 mm	17.6 in	436 mm	17.2 in	436 mm	17.2 in
Maximum depth of cut	640 mm	25.2 in	640 mm	25.2 in	640 mm	25.2 in
Maximum blade tip						
Forward	50°		50°		50°	
Rear	5°		5°		5°	

BLADE RANGE (AWD)

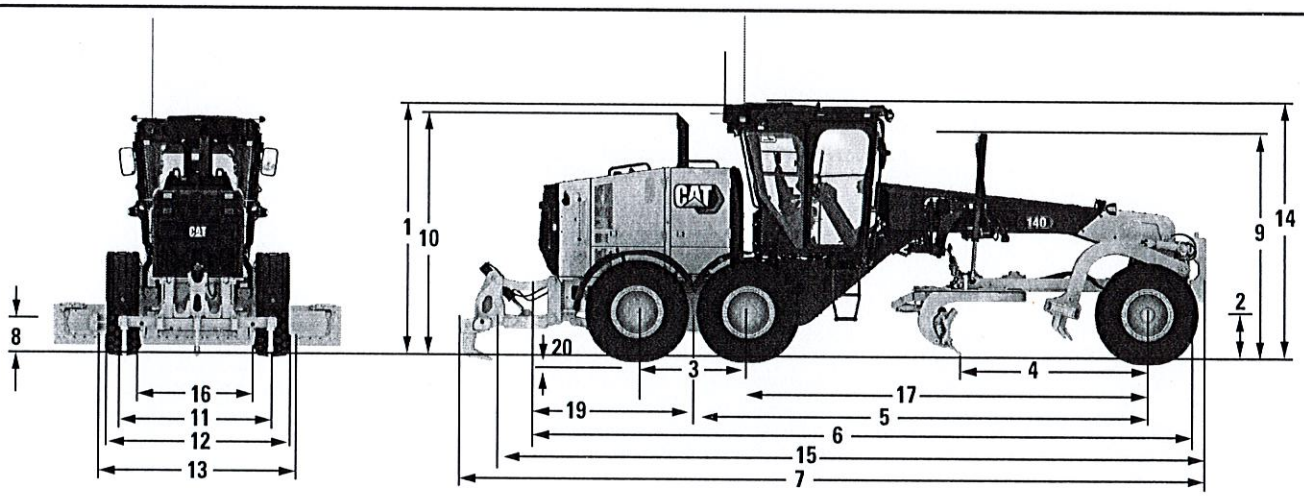
	STANDARD		TOP ADJUST		HIGH PERFORMANCE CIRCLE	
Circle centershift with 14 ft moldboard						
Left	724 mm	28.5 in	724 mm	28.5 in	724 mm	28.5 in
Right	740 mm	29.1 in	740 mm	29.1 in	740 mm	29.1 in
Moldboard side shift with 17.5/R25 MX12 tires						
Left	821 mm	32.3 in	958 mm	37.7 in	958 mm	37.7 in
Right	947 mm	37.3 in	815 mm	32.1 in	815 mm	32.1 in
Maximum shoulder reach outside tires (12 ft moldboard)						
Left	1759 mm	69.3 in	1902 mm	74.9 in	1902 mm	74.9 in
Right	1877 mm	73.9 in	1726 mm	68.0 in	1726 mm	68.0 in
Maximum shoulder reach outside of tires (14 ft moldboard)						
Right	2425 mm	95.5 in	2561 mm	100.8 in	2561 mm	100.8 in
Left	2541 mm	100.0 ft	2411 mm	94.9 in	2411 mm	94.9 in
Maximum blade position angle (both sides)			104° (L) / 101.7° (R)			
Maximum lift above ground	447 mm	17.6 in	436 mm	17.2 in	436 mm	17.2 in
Maximum depth of cut	640 mm	25.2 in	640 mm	25.2 in	640 mm	25.2 in
Maximum blade tip						
Forward	50°		50°		50°	
Rear	5°		5°		5°	

140 Motor Grader Specifications

All data applies to all 140 configurations (Non-AWD, AWD, LVR, and JS) unless otherwise noted.

Dimensions

All dimensions are approximate and may vary dependent on tire selection. Dimensions below are calculated with 14.0R24 tires.



1	Height – Top of Cab	3454 mm	136.0 in
2	Height		
	Front Axle Center	612 mm	24.1 in
3	Length – Between Tandem Axles	1498 mm	59.0 in
4	Length		
	Front Axle to Moldboard	2564 mm	100.9 in
5	Length		
	Front Axle to Rear Axle	6136 mm	241.6 in
6	Length		
	Front Tire to Rear of Machine (Non AWD)	8911 mm	350.8 in
7	Length – Push Plate to Ripper	10297 mm	405.4 in
8	Ground Clearance at Rear Axle	333 mm	13.1 in
9	Height to Top of Cylinders	3044 mm	119.8 in
10	Height to Exhaust Stack	3313 mm	130.4 in
11	Width – Rear Tire Center Lines	2087 mm	82.2 in
12	Width – Outside Rear Tires	2532 mm	99.7 in

13	Width – Outside Front Tires		
	LVR Configuration, Tandem – Non-AWD	2521 mm	99.3 in
	Joystick Configuration, Tandem – Non-AWD	2583 mm	101.7 in
	LVR Configuration, AWD	2667 mm	105.0 in
	Joystick Configuration, AWD	2667 mm	105.0 in
14	Maximum Height With Attachments		
	LVR Configuration	3476 mm	136.9 in
	Joystick Configuration	3450 mm	135.8 in
15	Length – Push Plate to Raised Ripper	9963 mm	392.2 in
16	Width – Inside Rear Tires	1642 mm	64.6 in
17	Length		
	Front Axle to Articulation Hitch	5292 mm	208.3 in
18	Length – Rear Axle to Articulation Hitch	844 mm	33.2 in
19	Length – Rear Axle to Rear of Machine	2099 mm	82.6 in
20	Height – Tire Deflection at Performance Weight	64.5 mm	2.5 in

Optional Tire Arrangements

Rim Size	Wheel Group	Tires
9 × 24	Single-Piece	14.00-24
10 × 24	Multi-Piece	14.00-24
14 × 25	Multi-Piece	17.5R25

Note: Consult your dealer for individual tire width, size and brand.

Standard and Optional Equipment

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

	Standard	Optional
OPERATOR ENVIRONMENT		
"B" pillar mirrors	✓	
Adjustable steering wheel/lever controls	✓	
Air suspension seat	✓	
AM/FM/Bluetooth®/WB radio		✓
Auxiliary heaters	✓	
Base cab	✓	
Cab storage	✓	
CB radio ready		✓
Cell phone holder	✓	
Coat hook	✓	
Cup holder	✓	
Defrost fans		✓
Differential lock, manual (LVR)	✓	
Differential lock, automatic (JOY)	✓	
Digital blade slope meter (LVR)		✓
Digital blade slope meter (JOY)	✓	
Dome interior light	✓	
Electric throttle control	✓	
Entertainment radio ready (LVR)		✓
Entertainment radio ready (JOY)	✓	
Heated and ventilated premium seat		✓
Heating/cooling cab system	✓	
Information display screen	✓	
Lower front wipers		✓
Rear sun shades	✓	
Rear window screen		✓
ROPS/FOPS	✓	
Satellite radio		✓
Seat belt	✓	
Vinyl seat	✓	
Wipers, front	✓	
Wipers, rear		✓
SAFETY		
Back-up alarm	✓	
Grab rails	✓	
Horn	✓	
Hydraulic brakes	✓	
Hydraulic system - integrated dead engine implement lower	✓	
Hydraulic system - integrated work port pressure relief	✓	
License plate bracket		✓
Manual lock out (LVR)		✓
Operator Presence System	✓	
Parking brake	✓	
Rearview camera		✓
Rearview mirror	✓	
Secondary steering system		✓
Side view mirrors		✓
Tandem toolbox	✓	

	Standard	Optional
SAFETY (CONTINUED)		
Tandem walkways	✓	
Warning beacon mounts		✓
Integrated hazard lights		✓
Sound suppression		✓
POWERTRAIN		
Cat® C7.1	✓	
Eco mode	✓	
Reversing fan (LVR)		✓
Reversing fan (JOY)	✓	
Transmission with Autoshift		✓
High-speed engine oil drain		✓
Ecology drain	✓	
Cold weather package		✓
Cold weather package plus		✓
Engine idle shutdown	✓	
Shifter with upshift/downshift rocker	✓	
All-Wheel Drive (AWD)		✓
DRAWBAR CIRCLE MOLDBOARD		
12 ft moldboard	✓	
14 ft moldboard		✓
Blade lift accumulators		✓
High Performance Circle		✓
Circle drive slip clutch	✓	
Circle saver		✓
Standard drawbar circle moldboard	✓	
Top adjust circle		✓
ELECTRICAL		
Sealed alternator	✓	
150A brushed alternator	✓	
200A brushed alternator		✓
Reversing lights	✓	
Breaker panel	✓	
900 CCA (Tier 3)	✓	
1,125 CCA heavy duty batteries (Tier 4 Final / Stage V)	✓	
LED lights	✓	
Low light and high light bars	✓	
Snow wing LED lights		✓
Drop down rear lights and turn signals	✓	

140 Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

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

	Standard	Optional
SERVICE AND MAINTENANCE		
Ground-level DEF and fuel fill	✓	
Grouped location for engine oil and fuel filters	✓	
Extended life coolant	✓	
Next generation fluid filters	✓	
Engine service light		✓
Remote flash	✓	
PM alerts	✓	
GUARDS		
Fender		✓
Cover, under cab platform		✓
Steering Cylinder Guards (AWD only)		✓
VERSATILITY		
Towing hitch		✓
L3 tires		✓
TIRES		
14-24		✓
17.5-25		✓
14.0R24		✓
17.5R25		✓
550/65R25		✓
ATTACHMENTS AVAILABLE FROM FACTORY		
Lift Groups		✓
Counterweight		✓
Push block		✓
Mid-Machine Scarifier (MMS)		✓
Rear Ripper/Scarifier		✓
Moldboards		✓
Front Blade		✓
Tow hitch		✓
Grader Bits on 14 ft moldboard		✓
ATTACHMENTS		
Lift Groups		✓
Counterweight		✓
Push block		✓
Mid-Machine Scarifier (MMS)		✓
Rear Ripper/Scarifier		✓
Moldboards		✓
Front Blade		✓
Snow Wings		✓
V-Plow		✓
Straight Plow		✓
Brooms		✓
One-way plow		✓
Angling plow		✓
U-V plow		✓
Trip edge plow		✓

	Standard	Optional
TECHNOLOGY		
Attachment Ready Option (ARO) (JOY)	✓	
Attachment Ready Option (ARO) (LVR)		✓
Cat® Grade 3D		✓
Cross Slope Assist (JOY)	✓	
Cross Slope Assist (LVR)		✓
RTK corrections radios for Cat Grade with 3D mastless		✓
Stable Blade (JOY)	✓	
Stable Blade (LVR)		✓
VisionLink™		✓
Rear lights with LED lighting		✓
LED lights		✓
Low light and high light bars		✓
Snow wing LED lights		✓
Drop down rear lights and turn signals		✓
People detect		✓
Tire Pressure Monitoring System (TPMS)		✓
E-fence (JOY)	✓	
Auto articulation (JOY)	✓	
Cat Production Measurement (CPM): efficiency coach and application segmentation		✓

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® C7.1 engine is available in configurations that meet U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Cat engines meeting U.S. EPA Tier 4 Final and EU Stage V are compatible with diesel fuel 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 or R1234yf. Refer to the machine labeling for identification of the gas.
  - If equipped with R134a (Global Warming Potential = 1430), the system contains 1.6 kg (3.5 lb) of refrigerant which has a CO_2 equivalent of 2.71 metric tonnes (2.674 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

Spectator Sound Level – (ISO 6395:2008) 105 dB(A)

Operator Sound Level – (ISO 6396:2008) 69 dB(A)

- 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 machine was equipped with a sound suppression system.
- 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. The machine was equipped with sound suppression system.

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 contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - Eco mode minimizes fuel consumption for light application.
  - Engine Idle Shutdown Timer reduces fuel burn, greenhouse gas emissions and unnecessary idle time by shutting down the machine after a preset idling period.
  - Cat Grade helps reduce fuel burn and greenhouse gas emissions by enabling you to achieve grade faster and more accurately by automating blade actions.
  - Cut maintenance costs with extended service intervals next generation filters.
  - Improve jobsite efficiency with lower operating costs with 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	81.95%
Iron	11.90%
Nonferrous Metal	1.45%
Mixed Metal	0.04%
Mixed Metal and Nonmetal	2.47%
Plastic	0.51%
Rubber	0.07%
Mixed Nonmetallic	0.44%
Fluid	0.28%
Other	0.56%
Uncategorized	0.33%
Total	100%

- 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 (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 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 – 98%

Machine and Implement Controls

Unprecedented precision and ease of operation

Two electro-hydraulic joysticks with electronically adjustable control pods help position operators for optimal comfort, visibility and productive operation.

Joystick Functions

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

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

The steer tire angle matches the joystick position. A brake tensioning system holds the joystick in position until the operator moves it. The steering control automatically reduces steering sensitivity at higher ground speeds for predictable control.

Infinitely variable roller switches control the rear ripper and/or front lift group (when equipped). Optional Programmable Auxiliary Hydraulic Pod controls up to six additional hydraulic circuits.

Electronic Throttle Control

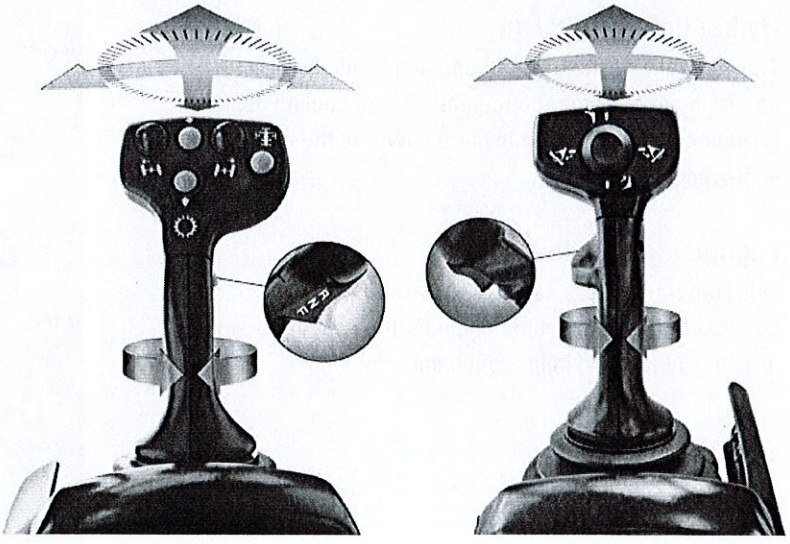
Electronic Throttle Control helps improve productivity by providing the best match of horsepower and torque for the demands of the application.

Articulation Return-to-Center

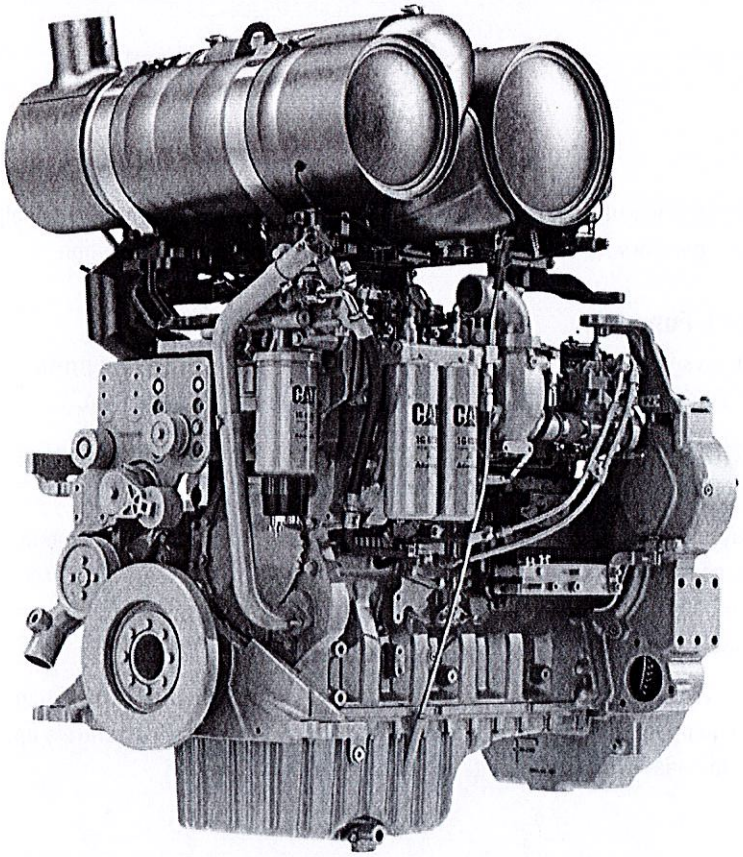
Automatically returns the machine to a straight frame position from any angle with the touch of a button.

Selectable Blade Lift Modes

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



Engine
Power and reliability



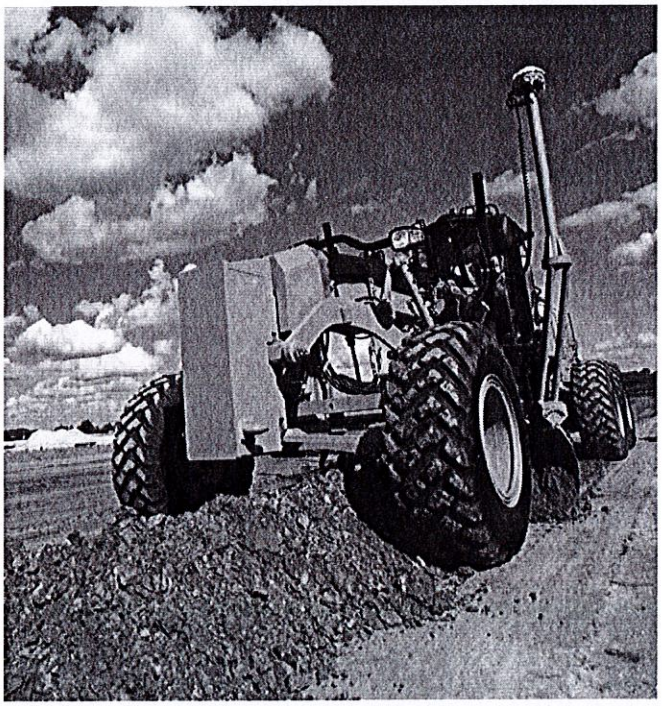
A Cat C9.3 engine gives you the performance you need to maintain consistent grading speeds for maximum productivity. Every U.S. EPA Tier 4 Final/EU Stage V engine is equipped with a combination of proven electronic, fuel, air and aftertreatment components. Applying proven technologies systematically and strategically helps meet your high expectations for productivity, fuel efficiency, reliability and service life.

Hydraulic Demand Fan

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

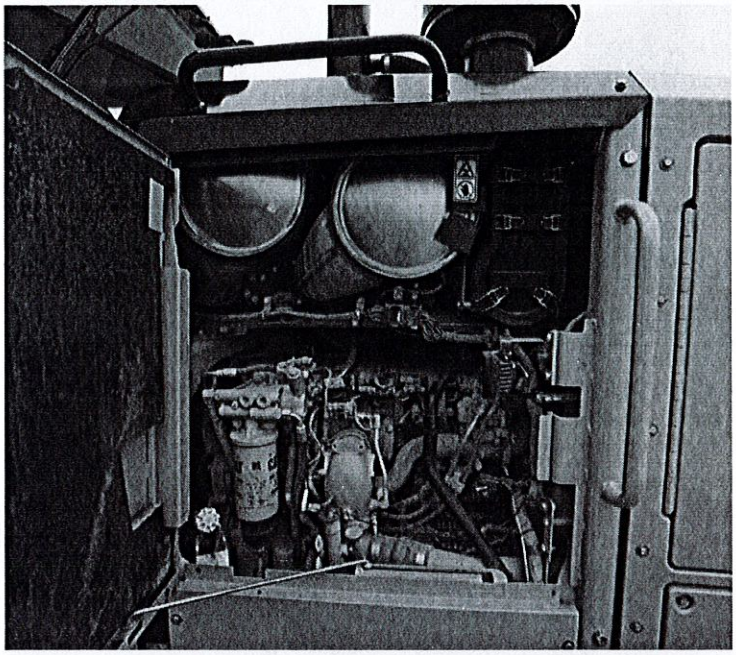
Engine Idle Shutdown Timer

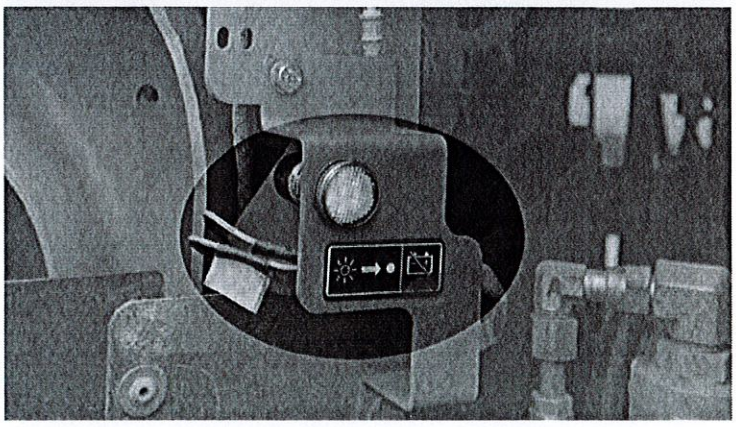
This standard feature can be software-enabled by your Cat dealer to shut down the engine after a set period of time to save you fuel and help reduce emissions.



Emissions Technology

Proven, integrated solutions





Emissions reduction technology on the 140/150/160 Motor Graders is designed to be transparent, with no action required from the operator. There is no need to stop. Regeneration runs automatically at cold start-up and, if needed, in the background while you work.

Aftertreatment Technologies

Caterpillar designed Tier 4 Interim products with Tier 4 Final standards in mind. To meet the additional 80 percent reduction in NOx emissions required by EPA Tier 4 Final/EU Stage V emission standards, Caterpillar engineers only needed to add one new system to the already proven aftertreatment solution in use, Selective Catalytic Reduction (SCR).

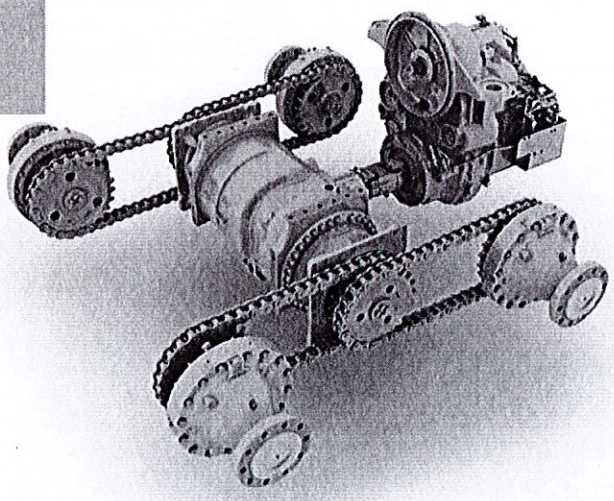
Diesel Exhaust Fluid

Selective Catalytic Reduction utilizes Diesel Exhaust Fluid (DEF), which can be conveniently filled from ground level. Simply refill the DEF tank when you refuel. A gauge on the dash shows your fluid level.

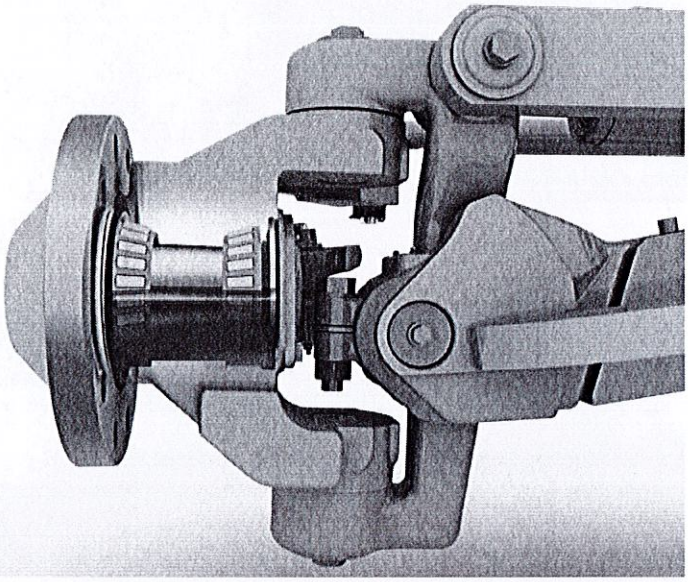
When you turn the machine off, a pump will automatically purge the DEF lines. A light located inside the rear engine compartment will turn off, telling you the purge is complete and that it is safe to turn off the electrical disconnect. If the engine/aftertreatment temperatures are high, a Delayed Engine Shutdown will activate automatically to cool the machine and then purge the lines.

For complete aftertreatment information, please refer to your machine's Operation and Maintenance Manual.

Power Train
Maximum power to the ground

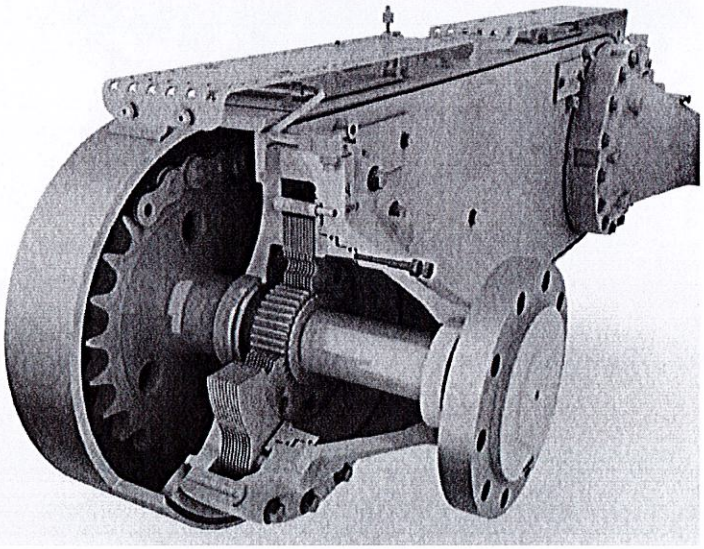


- Standard Automatic Differential Lock/Unlock monitors machine and application parameters to unlock/re-lock the differential during operation, improving production and enhancing comfort while protecting the power train.
- Full Electronic Clutch Pressure Control optimizes inching modulation for smooth shifts and directional changes.
- Programmable Autoshift option simplifies operation by allowing you to program the transmission to shift at optimal points to match your application.
- New standard Economy Mode can be turned on to help save fuel by reducing engine speed so the machine works in a more efficient range. The average fuel savings is up to 10 percent, depending on the application.
- Power Shift Countershaft Transmission maximizes power to the ground.
- Engine Over-Speed Protection prevents downshifting until an acceptable safe travel speed has been established.



Front and Rear Axles

The sealed spindle keeps front axle bearings lubricated and protected from contaminants. The Cat "Live Spindle" design places the larger tapered roller bearing on the outside, where the load is greater, extending bearing life. A bolt-on modular rear axle improves serviceability and contamination control with easy access to differential components.

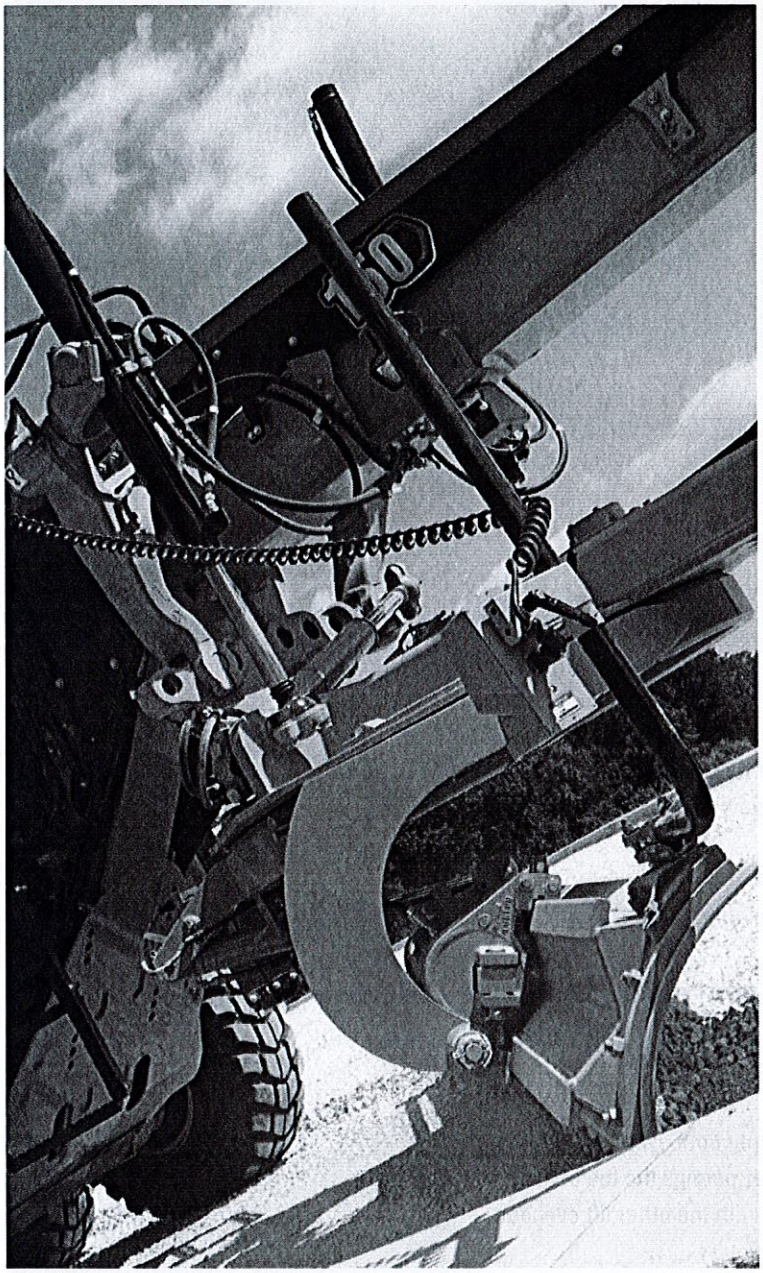


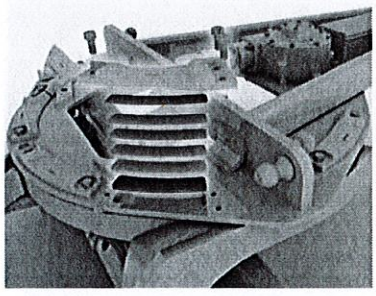
Hydraulic Brakes

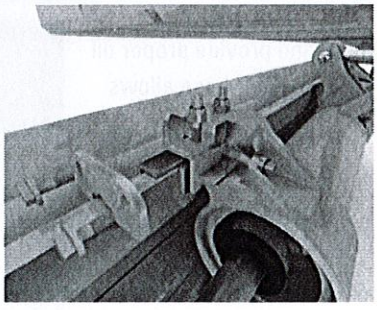
Oil-bathed multi-disc service brakes are hydraulically actuated for smooth, predictable braking and lower operating costs. Brakes are located at each tandem wheel and have a large total brake surface area to give you dependable stopping power and longer life.

Structures and Drawbar-Circle-Moldboard

Service ease and precise blade control







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

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

Easy Maintenance for More Uptime

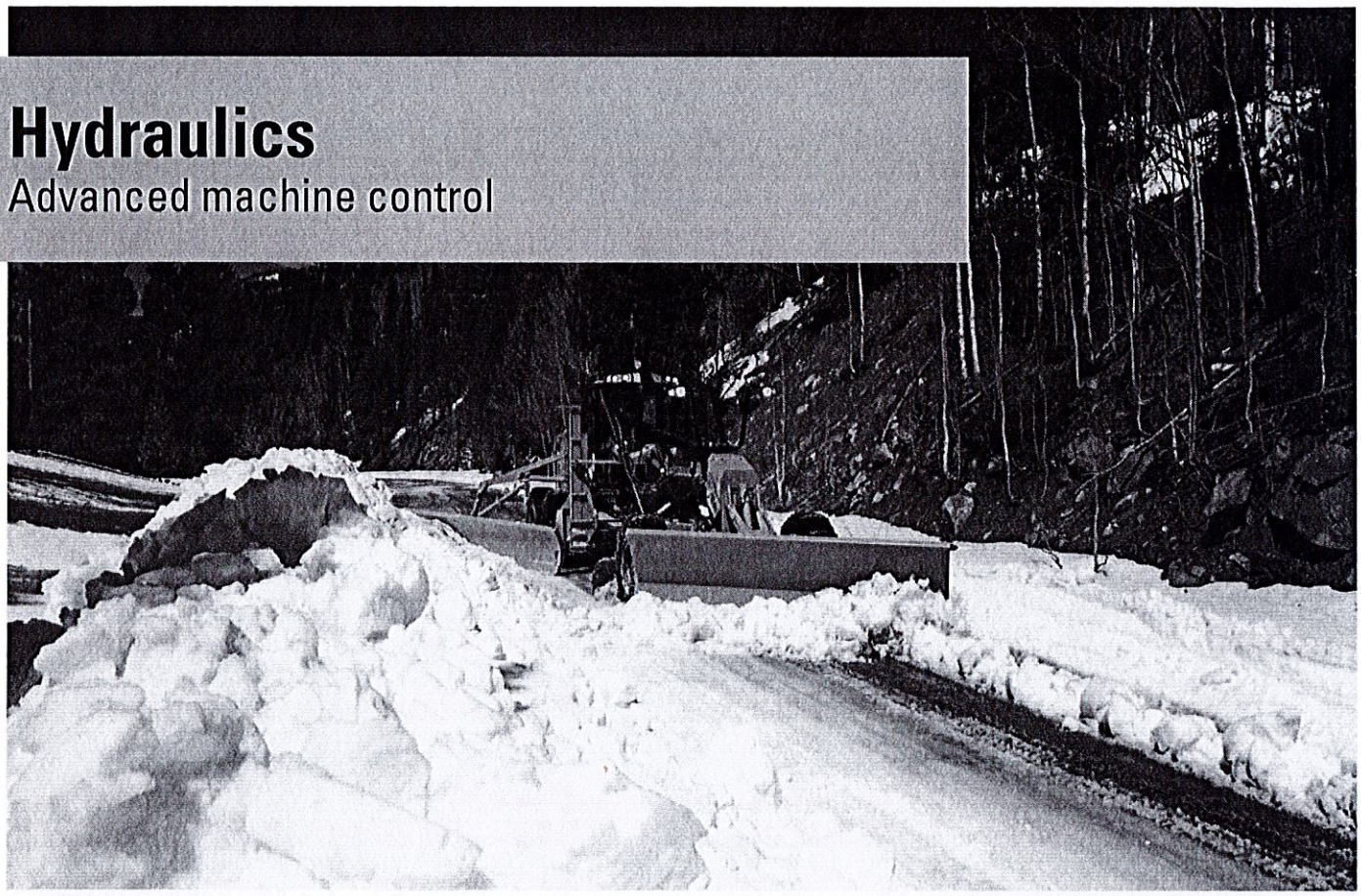
The drawbar, circle and moldboard are designed to make it easy to keep the components tight. One person can easily adjust or replace the patented top-adjust drawbar wear inserts from the top of the drawbar plate, reducing downtime to save you money. Durable nylon composite wear inserts maximize circle torque and component life. Sacrificial brass wears strips between the blade mounting group and moldboard can be easily adjusted and replaced. The Shimless Moldboard Retention System uses vertical and horizontal adjusting screws to keep moldboard wear strips aligned for reduced blade chatter and precise blade control.

Blade Angle and Moldboard

An aggressive blade angle, optimized moldboard curvature and large throat clearance help you work more efficiently by allowing material to roll more freely along the blade.

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

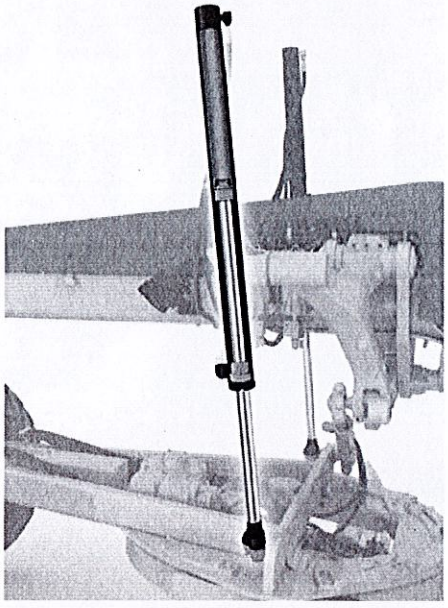
Hydraulics
Advanced machine control



Responsive Hydraulics

A proven load-sensing system and advanced electro-hydraulics give you superior implement control and responsive hydraulic performance that helps make your operator's job easier. Continuously matching hydraulic flow/pressure to power demands creates less heat and reduces power consumption.

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

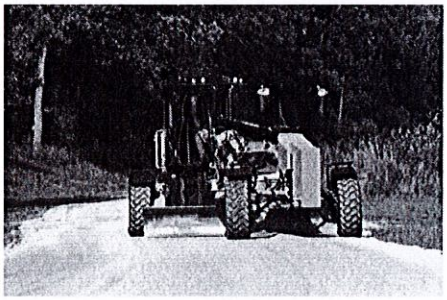


Blade Float

Allows the blade to move freely under its own weight. By floating both cylinders, the blade can follow the contours of the ground. Floating only one cylinder permits the toe of the blade to follow a hard surface while the operator controls the slope with the other lift cylinder.

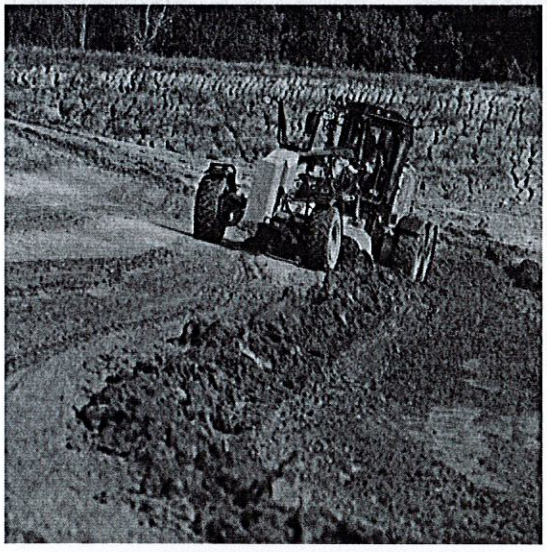
Independent Oil Supply

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

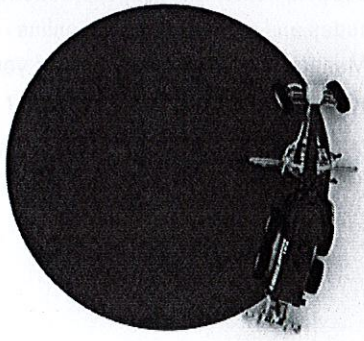


All Wheel Drive (AWD)

Expanded machine versatility



■ Without Steering Compensation ■ With Steering Compensation



If you work in soft underfoot conditions where traction can be a challenge, optional All Wheel Drive (AWD) can give you the additional power to the ground you need to work more efficiently in mud, gravel, sand or snow. The added traction helps reduce sliding on side slopes.

- Dedicated left and right pumps give you more precise hydraulic control. The infinitely variable pumps and motors maximize torque in each gear.
- AWD automatically increases horsepower to maximize your power to the ground.
- Standard Hydrostatic Mode disengages the transmission and provides hydraulic power to the front wheels only. Infinitely variable ground speed between 0-8 km/h (0-5 mph) is ideal for precise finish work.
- Cat Steering Compensation System enables a "powered turn" by adjusting the outside front tire speed up to 50% faster than the inside tire. This gives you improved control, reduces surface damage and greatly reduces turning radius in poor underfoot conditions.

Integrated Technologies

Monitor, manage, and enhance job site operations

Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technology-equipped machines, you'll get more information and insight into your equipment and operations than ever before.

Cat Connect technologies offer improvements in these key areas:

EQUIPMENT MANAGEMENT

Equipment Management – increase uptime and reduce operating costs.

PRODUCTIVITY

Productivity – monitor production and manage job site efficiency

SAFETY

Safety – enhance job site awareness to keep your people and equipment safe.

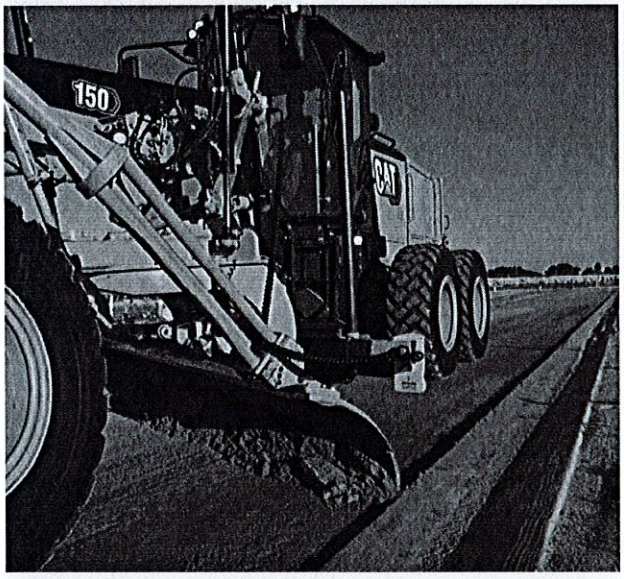
Featured Cat Connect technologies include:

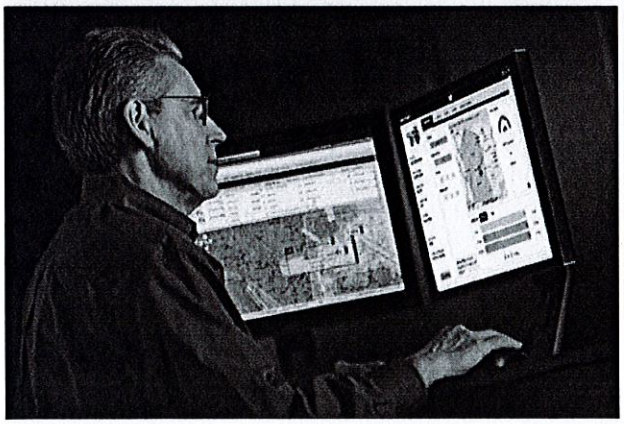
Link

Link technologies provide wireless capability to machines enabling two-way transfer of information collected by on-board sensors, control modules, and other Cat Connect technologies using off-board apps, such as our VisionLink software.

Product Link™/VisionLink®

Product Link takes the guesswork out of equipment management. Track location, hours, fuel usage, productivity, idle time, diagnostic codes and more through the online VisionLink interface. Manage your fleet in real time so you can maximize efficiency, improve productivity, and lower operating costs.





Grade

Grade technologies combine digital design data, in-cab guidance, and automatic blade controls to enhance grading accuracy, reduce rework, and lower costs related to production earthmoving and rough, fine and finish grade applications.

Cat Grade Control Cross Slope

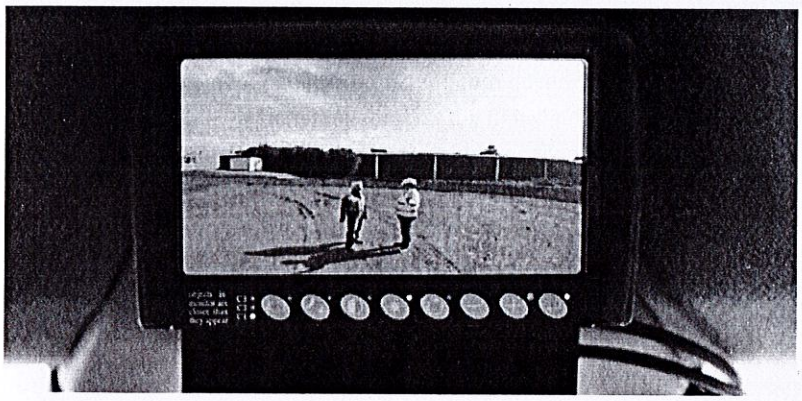
Cat Grade Control Cross Slope is an optional fully integrated, factory installed system that helps your operator improve grading efficiency and more easily maintain accurate cross slopes. The system automatically controls one side of the blade, reducing manual operator inputs by as much as 50 percent. Experienced operators can maintain peak efficiency levels throughout more of the work day, while less experienced operators can be more productive faster. The system is job-ready from day one, and scalable for the future with AccuGrade™ upgrade kits that provide additional 2D and/or 3D control.

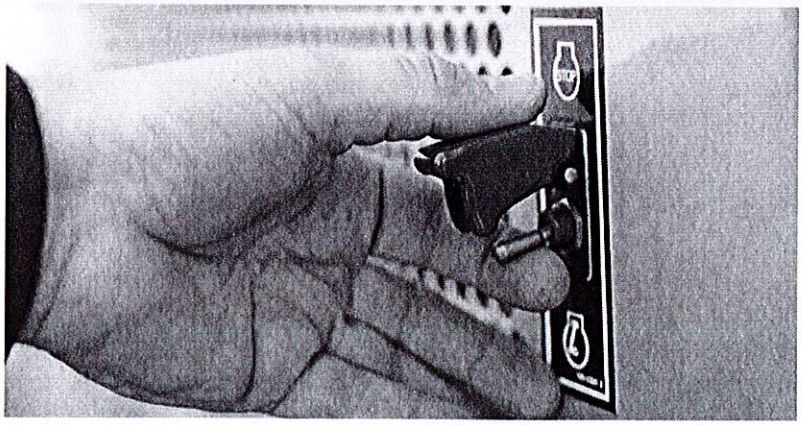
Cat AccuGrade

AccuGrade is an optional dealer-installed grade control system that provides higher accuracy capabilities to the Cat Cross Slope system by adding Sonic, Laser, GPS, and/or Universal Total Station (UTS) technology when the job requires. In-cab guidance helps operators work more confidently and get to grade faster, in fewer passes, using less material, improving productivity and accuracy by nearly 50 percent over conventional methods. Grade stakes and checkers are minimized, making the job site safer and more cost effective. An AccuGrade Attachment Ready Option can be ordered as a factory or dealer-installed option. It includes built-in mounting points and internal wiring for easy installation of the AccuGrade system.

Safety

Designed with protection in mind





Safety Features

- Optional rearview camera with in-cab monitor
- New optional seat belt indicator light reminds operator to fasten safety belt
- Grouped, ground level service points
- Laminated front window glass
- Optional LED Lighting
- Ground-level electrical disconnect switch
- Ground-level engine shutoff switch
- Anti-glare paint eases night operation
- Optional front and rear fenders

Operator Presence Monitoring System
Standard system keeps the parking brake engaged and hydraulic implements disabled until the operator is seated and the machine is ready for operation.

Speed Sensitive Steering
Standard function makes steering less sensitive as ground speed increases for greater operator confidence and control.

Secondary Steering System
Standard feature automatically engages an electric hydraulic pump in case of a drop in steering pressure so the operator can steer the machine to a stop.

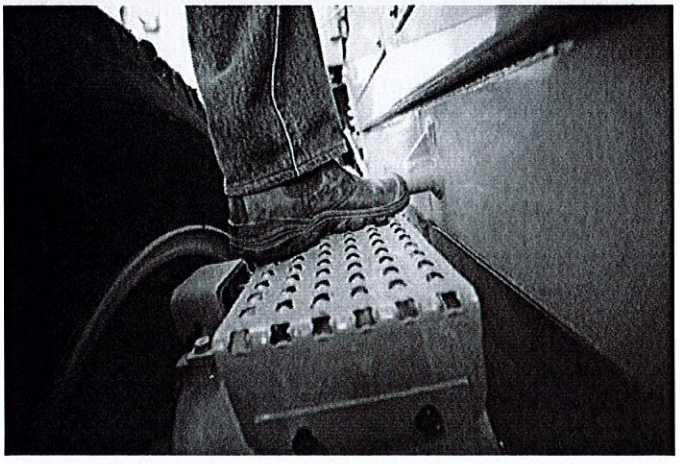
Hydraulic Lockout
Disables all implement functions while still providing machine steering control. This standard safety feature is especially useful while roading.

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

Walkways and Grab Rails
Perforated steel tandem walkways and convenient grab rails give you a sturdy platform when moving on, off and around the machine.

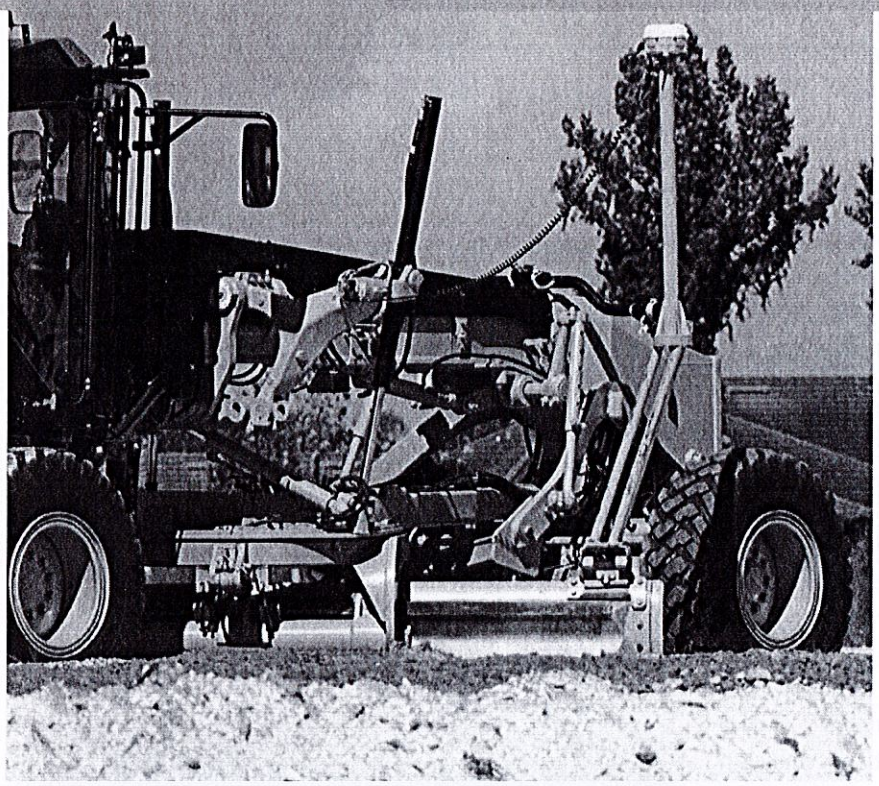
Circle Drive Slip Clutch
Protects the drawbar, circle and moldboard from shock loads when the blade encounters an immovable object. This standard feature also reduces the possibility of abrupt directional changes in poor traction conditions.

Blade Lift Accumulators
Help absorb impact loads to the moldboard by allowing vertical blade travel. This optional feature helps reduce wear and aids operator safety.



Work Tools and Attachments

Equip your machine for the job



Moldboard Options

The 140, 150, and 160 motor graders come equipped with a 3.7 m (12 ft) moldboard. An optional 4.3 m (14 ft) blade is available for all models, as well as a 4.9 m (16 ft) moldboard for the 160.

Ground Engaging Tools (GET)

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

Front Mounted Groups

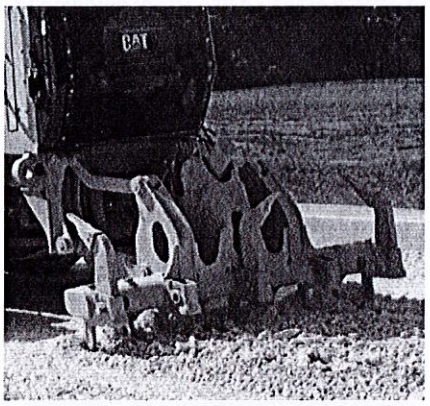
A front mounted push plate or front lift group are available. The front lift group can be combined with a front dozer blade or front scarifier for added versatility.

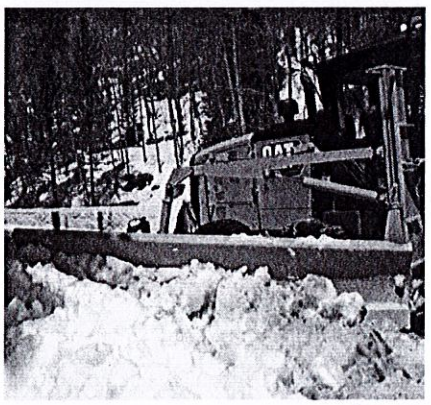
Rear Ripper/Scarifier

Made to penetrate tough material fast and rip thoroughly for easier movement with the moldboard. The ripper includes three shanks (with holders for five). Nine scarifier shanks can also be added for additional versatility.

Snow Removal Work Tools

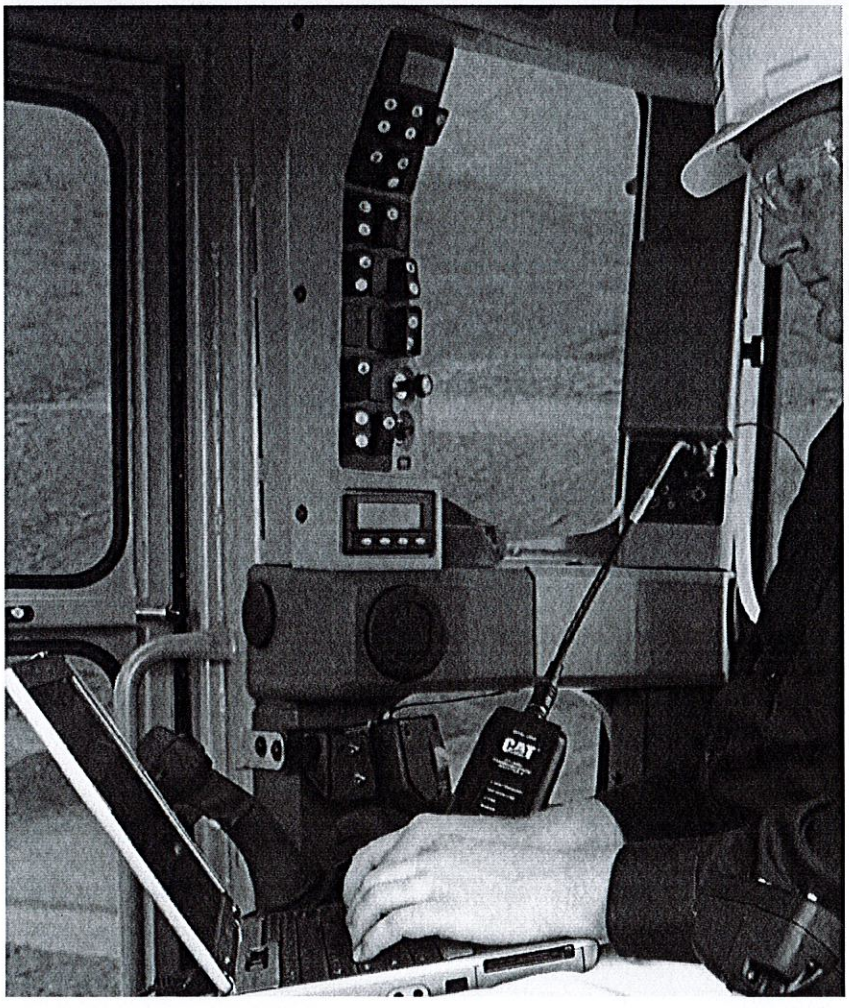
Snow plow, snow wing and mounting options increase machine versatility and utilization throughout the year.





Smart Machine Systems
Advanced Diagnostics

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



Serviceability and Customer Support
When uptime counts

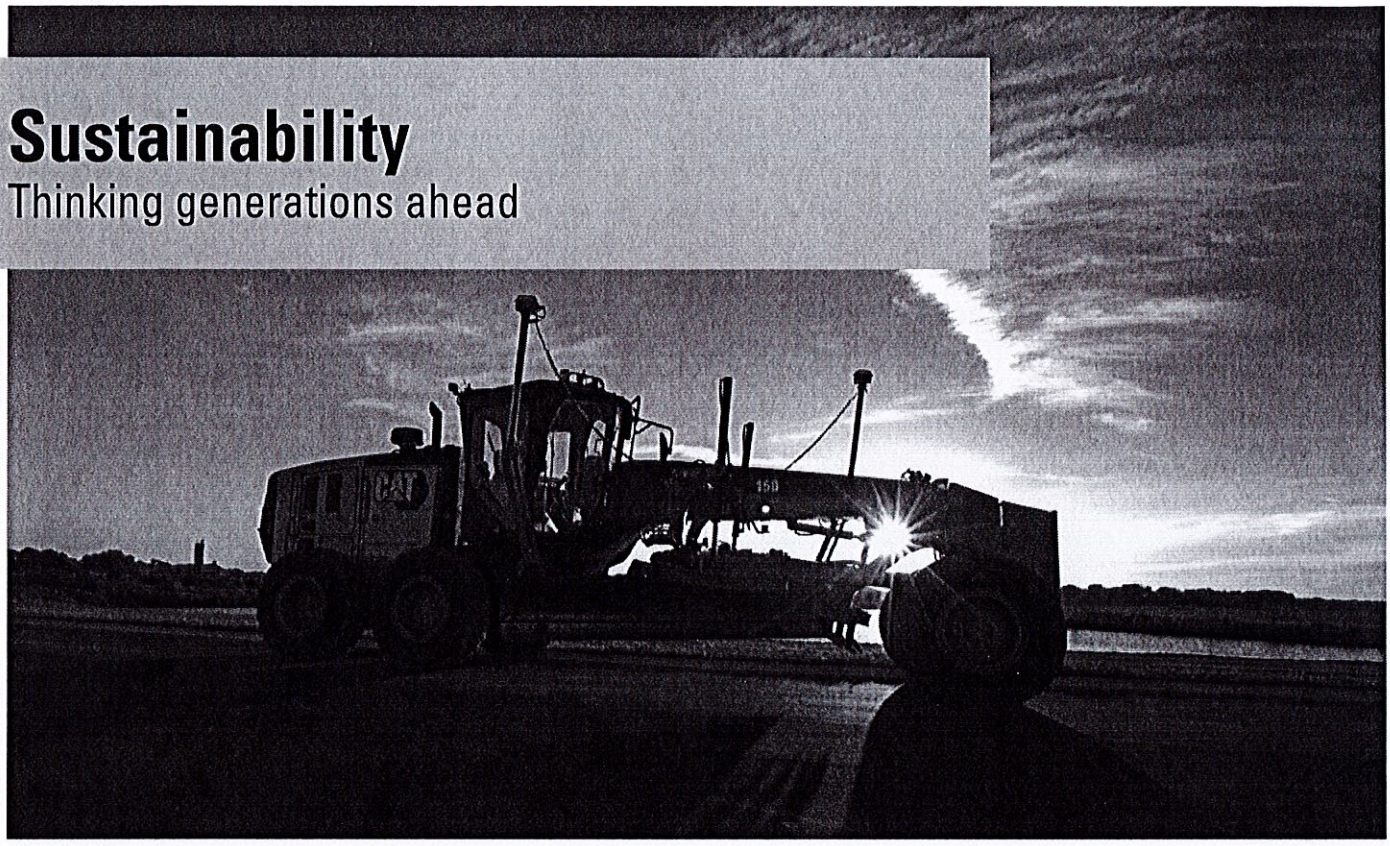
Cat motor graders are designed to help you increase uptime and reduce costs. Grouped service points and extended service intervals save maintenance time. New optional LED lights in the left hand compartment makes it more convenient to service the machine in low light.

Unparalleled Dealer Support

When it comes to supporting you, Cat dealers are second to none. From machine selection and purchase to maintenance support and rebuilds, Cat dealers have the experience and capabilities to help keep you up and running.

Sustainability

Thinking generations ahead



Fuel Efficiency

- Integrated machine systems and technologies improve productivity for greater accuracy, allowing the machine to do more work per gallon of fuel.
- New Economy Mode feature allows the machine to work in the most efficient engine speed range to help reduce fuel use.

Green House Gas Emissions

- Reduced fuel consumption means reduced CO_2 emissions.

Material Efficiency and Lifecycle Costs

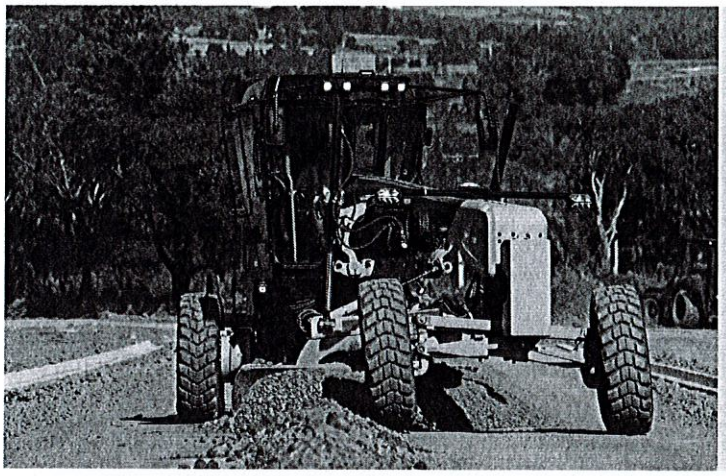
- Replaceable wear parts save maintenance time and cost, and extend major component life.
- Major components are built to be rebuilt, eliminating waste and saving customers money by giving the machine and/or major components a second – and even third – life.
- Approximately 95% of machine materials can be recycled (ISO 16714) to conserve valuable natural resources and further enhance machine end-of-life value.

Sound

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

Safety

- Ecology drains help make draining fluids more convenient and help prevent spills.
- Cartridge style hydraulic fluid filters provide safe clean draining of filters prior to replacement, helping to prevent fluid spills.
- A variety of safety features help safeguard operators and others on the job site.



Next Generation

Cat® 140

Motor Graders

Power to the Ground

A new specification is now available on Next Generation Cat® 140 Motor Graders, showing the actual power to the ground performance. Cat updated the power strategy (called Power to the Ground) so the machine now delivers consistent power in every condition – hot or cold weather, heavy or light load. This means the grader feels more stable, more predictable, and easier to control, especially when fine-grading. You still get the same real-world productivity, with smoother operation and better fuel efficiency.

More Consistent Power to the Ground

- With true constant net power, the machine delivers the same power at a given engine speed and gear, regardless of ambient temperature or load.
- This means operators experience more predictable grading performance. Consistent power to the ground also improves machine feel and control during fine-grading work.

Improved Grading Quality with Integrated Control Technologies

- Because the power curve is more stable, technologies such as Cat Grade with Cross Slope, Stable Blade, and 3D Grade perform more accurately. Stable, predictable power improves automated blade control response.

No Loss in Real-World Productivity

- With the Next Generation Cat 140 motor graders, you get the same legendary performance for road building, site prep, ditching, and snow removal—now backed by the latest design evolution. The model numbers changed. The capability didn't.

Better Fuel Efficiency

- Power to the Ground supports smoother operation and reduced fuel burn by avoiding unnecessary power spikes, allowing the machine to run in optimized power more often.

CAT®

Cat® 140 Motor Grader

Technical Specifications

AWD

	140 (16A) LVR / JOY				140 (15B) JOY				140 (13A) LVR			
Power Type	ISO 9249 Net		Power to Ground*		ISO 9249 Net		Power to Ground*		ISO 9249 Net		Power to Ground*	
Finish Gear	98 kW	131 hp	68 kW	91 hp	–				–			
1F	132 kW	177 hp	95 kW	128 hp	149 kW	200 hp	95 kW	127 hp	147 kW	197 hp	100 kW	134 hp
2F	144 kW	193 hp	104 kW	139 hp	164 kW	220 hp	107 kW	143 hp	162 kW	217 hp	112 kW	150 hp
3F	155 kW	208 hp	108 kW	145 hp	168 kW	225 hp	104 kW	139 hp	166 kW	223 hp	110 kW	148 hp
4F	164 kW	220 hp	108 kW	145 hp	172 kW	231 hp	98 kW	132 hp	170 kW	228 hp	105 kW	141 hp
5F	173 kW	232 hp	110 kW	147 hp	188 kW	252 hp	104 kW	139 hp	186 kW	249 hp	110 kW	148 hp
6F	179 kW	240 hp	108 kW	145 hp	188 kW	252 hp	96 kW	129 hp	201 kW	270 hp	118 kW	158 hp
7F	188 kW	252 hp	106 kW	142 hp	188 kW	252 hp	82 kW	110 hp	201 kW	270 hp	104 kW	139 hp
8F	186 kW	249 hp	88 kW	118 hp	188 kW	252 hp	63 kW	85 hp	201 kW	270 hp	84 kW	113 hp
Max Torque		1158 N•m	854 lb-ft			1247 N•m	920 lb-ft			1247 N•m	920 lb-ft	
Rated Speed	2,000 rpm				2,000 rpm				2,000 rpm			
Peak Torque	1,400 rpm				1,000 rpm				1,000 rpm			

Non-AWD

	140 (16A) LVR / JOY				140 (15B) JOY				140 (13A) LVR			
Power Type	ISO 9249 Net		Power to Ground*		ISO 9249 Net		Power to Ground*		ISO 9249 Net		Power to Ground*	
Finish Gear	98 kW	131 hp	67 kW	90 hp	–				–			
1F	131 kW	176 hp	94 kW	126 hp	141 kW	189 hp	96 kW	129 hp	141 kW	189 hp	92 kW	123 hp
2F	154 kW	207 hp	102 kW	137 hp	149 kW	200 hp	103 kW	138 hp	149 kW	200 hp	99 kW	133 hp
3F	148 kW	198 hp	106 kW	142 hp	156 kW	209 hp	107 kW	143 hp	156 kW	209 hp	103 kW	138 hp
4F	152 kW	204 hp	105 kW	141 hp	160 kW	215 hp	106 kW	142 hp	160 kW	215 hp	101 kW	135 hp
5F	157 kW	211 hp	105 kW	141 hp	164 kW	220 hp	104 kW	139 hp	168 kW	225 hp	103 kW	138 hp
6F	164 kW	220 hp	104 kW	139 hp	168 kW	225 hp	100 kW	134 hp	172 kW	231 hp	99 kW	133 hp
7F	179 kW	240 hp	105 kW	141 hp	172 kW	231 hp	90 kW	121 hp	188 kW	252 hp	99 kW	133 hp
8F	186 kW	249 hp	88 kW	118 hp	172 kW	231 hp	61 kW	82 hp	188 kW	252 hp	65 kW	87 hp
Max Torque		1158 N•m	854 lb-ft			1247 N•m	920 lb-ft			1247 N•m	920 lb-ft	
Rated Speed	2,000 rpm				2,000 rpm				2,000 rpm			
Peak Torque	1,400 rpm				1,000 rpm				1,000 rpm			

• Calculated powers verified by independent testing at Nebraska Tractor Lab, Lincoln NE, August 19, 2024. Conditions include dry concrete track with average temperature 24° C (75° F).
*Ground speed matched (+/-50 rpm engine). Performance variable fan speed 90%

IBAMA PROCONVE HOMOLOGADO

オフロード法２０１４年基準適合

AEXQ4682-01 (02-2026)
Build Number: 16A
(Global)

CAT®

BID SPECIFICATIONS

Cat® 140 (16A) JOY Non-AWD Motor Grader
BID SPECIFICATIONS

AEXQ4678-02 (05-2026)

BASIC SPECIFICATIONS

Y____ N____ Machine shall be designed and built by the manufacturer.

Y____ N____ Base machine weight shall not be less than 37,856 lbs (17 171 kg). Weight shall include standard machine configuration, lubricants, coolants, full fuel tank and operator of 200 lbs (91 kg).

Y____ N____ Machine height to top of the cab shall not exceed 136 in (3454 mm).

Y____ N____ Machine length from the front axle to end of tow hitch shall not be more than 208.3 in (5292 mm).

Y____ N____ Machine wheel base (distance from front axle to mid tandem) shall not be more than 241.6 in (6136 mm).

Y X N____ **The rear frame shall have two T-beam channels with an integrated bumper as standard.**

Y____ N____ A toolbox shall be provided.

Y____ N____ Machine shall utilize a dedicated push to start button with start ring used to activate accessory power and to turn off engine.

BASIC SPECIFICATIONS - OPTIONAL ATTACHMENTS

Y____ N____ Machine shall have vandal protection standard including locks for cab doors, engine side shields (4), top tank radiator access door, engine coolant surge tank, hydraulic reservoir cap, fuel tank cap, and tool box.

Y____ N____ An optional rear hitch shall be provided.

Y____ N____ Max machine length from counterweight to ripper shall not exceed 405.4 in (10 297 mm).

Y____ N____ Machine length from counterweight to stowed ripper shall not exceed 392.2 in (9 962 mm).

Y____ N____ Tow hitch shall be available.

Y____ N____ Rear ripper/scarifier with tow hitch shall be available.

Y____ N____ Snow wing ready ripper shall be available for Cat Mastless snow wing.

ENGINE

Y____ N____ Engine shall be designed and built by the manufacturer.

Y X N____ Engine shall be a turbo-charged, direct injection, four stroke, 6-cylinder diesel engine.

Y____ N____ Engine shall meet U.S. EPA Tier 4 Final and European Union Stage V emission standards.

Y____ N____ Engine shall be electronically controlled for more efficient fuel injection and fuel burn.

Y____ N____ Engine shall achieve rated power requirement with engine displacement not more than 7.1L (428 in^3) for better fuel economy.

Y X N____ Engine shall develop a rated net power as follows, per ISO 9249

- Finish Gear - 138 hp (103 kW)
- 1st Gear - 182 hp (136 kW)
- 2nd Gear - 189 hp (141 kW)
- 3rd Gear - 194 hp (145 kW)
- 4th Gear - 205 hp (153 kW)
- 5th Gear - 211 hp (157 kW)
- 6th Gear - 217 hp (162 kW)
- 7th Gear - 227 hp (169 kW)
- 8th Gear - 227 hp (169 kW)

BID SPECIFICATIONS

Y____ N____ Machine shall develop a drawbar power or power to ground. Power to ground is power available to wheels after fan and powertrain losses. Power to ground utilizes a constant net horsepower to allow engine to compensate for fan loads.
The minimum power to the ground shall be as follows
- Finish Gear - 102 hp (76 kW)
- 1st Gear - 139 hp (103 kW)
- 2nd Gear - 145 hp (108 kW)
- 3rd Gear - 145 hp (108 kW)
- 4th Gear - 148 hp (110 kW)
- 5th Gear - 147 hp (110 kW)
- 6th Gear - 144 hp (108 kW)
- 7th Gear - 136 hp (101 kW)
- 8th Gear - 109 hp (81 kW)

Y X N____ Engine will increase its low idle speed to 1,000 rpm when the battery voltage is below 24.5 volts for more than 5 minutes to ensure adequate system voltage and battery reliability.

Y____ N____ Altitude deration will not occur at altitudes less than 10,000 ft (3048 m). The deration rate above 10,000 ft (3048 m) shall be 1.5% per 1000 ft (305 m).

Y____ N____ Peak engine power shall not be achieved at an engine speed greater than 1800 rpm.

Y____ N____ Rated engine power shall not be achieved at an engine speed greater than 2000 rpm.

Y____ N____ Engine will have a minimum torque rise of 26% from 1080 rpm to peak torque following ISO 9249 (net power with max fan).

Y____ N____ Engine enclosure and daily service points shall be accessible from ground level and grouped on the left side of the machine.

Y____ N____ Engine fan shall automatically adjust fan speed via an electronically controlled pressure relief valve to meet engine cooling requirements thus reducing noise and heat.

Y____ N____ Engine fan shall be reversable with operator adjustment of reversing interval from 20 minutes to 120 minutes. Manual fan purger shall be available upon operator request.

Y X N____ **Engine shall allow for at least 1000 hours of operation between oil changes.**

Y X N____ Engine shall be isolation/resilient mounted to minimize sound and vibration.

Y X N____ Engine compartment doors shall be lockable without the use of external locks.

Y____ N____ Engine shall automatically lower engine torque and alert the operator if critical conditions are detected.

Y____ N____ Engine shall have an air-to-air after cooler for superior engine performance.

Y____ N____ Engine oil cooler shall be a water to oil shell and tube cooler system.

Y____ N____ Machine shall have a 12,000 hour coolant interval from factory.

Y____ N____ The charged air cooler (ATAAC) shall have 9.5 fins per inch.

Y____ N____ Economy mode (Eco mode) shall be able to be enabled and disabled by the operator through the onboard machine display.

Y____ N____ Eco mode shall be lockable via onboard programmable password protection.

Y____ N____ Eco mode shall be available directly from factory to increase net efficiency.

Y____ N____ DEF tank reservoir shall have a heater to thaw DEF fluid.

Y____ N____ DEF lines should be heated to prevent freezing during extremely cold ambient conditions.

Y____ N____ Engine idle shutdown shall be available.

ENGINE - OPTIONAL ATTACHMENTS

Y____ N____ An engine coolant heater shall be available to assist in cold weather starting.

Y____ N____ Ether starting aid shall be available and must automatically meter ether injection to prevent engine damage.

POWERTRAIN / TRANSMISSION

Y____ N____ Transmission shall be designed and built by the machine manufacturer.

BID SPECIFICATIONS

Y_X_ N____ Transmission shall be a direct drive, power shift, countershaft type.
Y_X_ N____ Transmission shall be equipped with built-in self-diagnostic capability.
Y_X_ N____ Transmission shall have no less than 9 forward speeds and 6 reverse speeds (for added safety).
Y____ N____ Finish Gear shall be available for speeds 0.65 mph to 1.9 mph.
Y____ N____ Transmission shall have 5 working gears between 0-11.3 mph (0-17.7 km/h), for dirt applications.
Y____ N____ Transmission shall be isolated/resilient mounted to reduce sound and vibration.
Y_X_ N____ A controlled throttle shifting system shall be standard to smooth directional gear changes without use of the inching pedal.
Y_X_ N____ **Electronic Throttle Control (cruise control) shall be standard and shall be controlled by a push button, located on a 3-axis joystick as standard on the right joystick control for resuming and decreasing throttle set.**
Y_X_ N____ Electronic Throttle Control modes, set, and accelerate functions shall be located on the right side B pillar for easy access.
Y____ N____ A load compensating system for the transmission shall be standard to ensure consistent shift quality in all applications.
Y_X_ N____ 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.
Y____ N____ Automatic mode shall not be overridden via manual intervention for optimal performance and to prevent unintended differential engagement
Y_X_ N____ Differential Lock/Unlock shall be electro-hydraulically controlled, as a standard feature.
Y____ N____ Differential Lock/Unlock shall be a multi-disc design.
Y_X_ N____ Final drive shall be a planetary design.
Y____ N____ The total surface area of all the transmission clutch packs shall not be less than 175.3 in² (1131 cm²).
Y____ N____ Diameter at the output end of the transmission shaft shall be no less than 2.29 in (58.1 mm).
Y_X_ N____ Machine shall be equipped with an electronic inching pedal for improved modulation and machine control.
Y____ N____ **Machine shall be equipped with electronic over-speed protection to prevent the engine and transmission from over speeding, as a standard feature.**
Y____ N____ Machine will shift down a gear when engine speed gets too low.
Y____ N____ Machine will shift to neutral to reduce the machine stalling.

POWERTRAIN / TRANSMISSION - OPTIONAL ATTACHMENTS

Y____ N____ An auto shift transmission option shall be available on all forward and reverse gears.
Y____ N____ **Inching pedal modulation setting shall be available in the machine display.**

STEERING AND IMPLEMENT CONTROLS

Y____ N____ **Steering wheel shall not be required to operate machine.**
Y_X_ N____ Joystick steering capabilities shall be ISO 5010:2019.
Y____ N____ **Machine shall employ a friction pack style steering mechanism, utilizing the speed sensitive follow steer concept.**
Y_X_ N____ **The left 3-axis joystick shall control wheel lean with individual left and right wheel lean buttons as standard.**
Y_X_ N____ **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.**
Y____ N____ **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.**

BID SPECIFICATIONS

Y____ N____ **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.**

Y X N____ **The right 3 axis joystick shall primarily control the Drawbar, Circle, and Moldboard.**

Y____ N____ **Machine, Drawbar, Circle, and Moldboard shall be achieved via a right hand multifunction, 3-axis, joystick, including moldboard slide and tip, drawbar center shift through a 4 way hat switch and circle turn by a left or right twist intuitively.**

Y____ N____ **Blade lift cylinders shall be individually controlled by the multifunction, 3 axis joysticks; Lift and drop of cylinders shall be achieved by the forward and back motion of the respective joystick. Forward (left joystick) lowers left lift cylinder, back (left joystick)raises the left lift cylinder, forward (right joystick) lowers the right lift cylinder, back (right joystick) raises the right lift cylinder.**

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

Y X N____ **Secondary steering shall be standard and ground-driven.**

Y X N____ **Transmission direction control shall be a 3-position rocker switch for selecting forward, neutral, and reverse incorporated into a single, 3-axis, multi-function, left-hand joystick control.**

Y____ N____ **Transmission gear selection shall be controlled roller switch for up shifting and downshifting and shall be incorporated into a single, 3-axis, multi-function, left-hand joystick control.**

Y____ N____ **Manual Differential Lock/Unlock shall be operator controlled, via a push-button, located on a single, 3-axis, multi-function, right-hand joystick control.**

Y____ N____ **The machine shall have two redundant articulation sensors.**

Y____ N____ **Two redundant sensors shall be standard in the steering cylinders (one in each).**

Y____ N____ **Three redundant sensors shall be provided in the steering joystick for additional safety.**

Y____ N____ **Machine shall be equipped with two auxiliary hydraulic circuits, one for front lift circuit and one for rear ripper circuit that are control by roller switches on the right B-pillar.**

BRAKES	Hydraulic implement pump shall produce between 0 and 40.9 gal/min (155 L/min) of oil flow at high idle.

Y____ N____ Machine shall have primary and secondary service brakes.

Y____ N____ Entire braking system shall meet all requirements of ISO 3450:2011.

Y____ N____ Two separate left and right hydraulic brake accumulators shall be standard for safety.

Y____ N____ Parking brake shall be a single rotor, air cooled, spring applied, and hydraulically released. Externally located for easy service and inspection.

Y____ N____ Parking brake shall be serviceable without removing the transmission.

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

Y____ N____ Service brake disc surfaces shall be grooved and carry oil between discs and plates with brakes fully applied.

Y____ N____ Service brakes shall be hydraulically actuated, utilizing dual, independent brake circuits.

Y X N____ Brakes shall be continuously pressurized, filtered, and oil cooled.

Y____ N____ **Machine shall have individual brake pods for each rear wheel, located at each rear wheel inside the tandem box, independent of tandem chains.**

Y____ N____ Compensation components shall be required at all four tandem brake pods in addition to the brake wear indicator.

Y____ N____ Brake line protection, including tandem walkways and hydraulic brake line guarding, shall be required to prevent line damage.

BID SPECIFICATIONS

Y____ N____ Service brakes shall provide a minimum of 2,537 in² (16 371 cm²) of total friction material surface area used at each of the four tandem wheels to eliminate braking loads on the powertrain.

HYDRAULIC SYSTEM

Y____ N____ A standard, triple-redundant hydraulic relief system shall protect machine hydraulic components.

Y____ N____ Hydraulic implement pump shall produce between 0 and 40.9 gal/min (155 L/min) of oil flow at high idle.

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

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

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

Y____ N____ The maximum hydraulic system pressure shall be no more than 3,500 psi (24 150 kPa).

Y✓ N____ Implement valves shall be mechanical, designed and built by the machine manufacturer.

Y✓ N____ Implement valves shall be proportional priority pressure compensating for consistent response, when multi-functioning any combination of implement controls and independent of engine speed.

Y____ N____ Steering and implement pump shall be solely dedicated to steering and implement controls and not shared with any other components.

Y✓ N____ Lock valves shall be integrated into the main implement valve to prevent cylinder drift.

Y____ N____ The hydraulic stand-by pressure shall be no more than 870 psi (6000 kPa).

Y____ N____ Left and right blade lift cylinders shall have independent float capability as standard equipment.

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

Y____ N____ Hydraulic oil change service interval shall be no less than 6000 hours with oil sampling.

Y____ N____ Hydraulic system shall have a separate oil tank solely dedicated to the implement pump.

Y____ N____ **Hydraulic filter will have 1000 hour change filter interval.**

HYDRAULICS SYSTEM - OPTIONAL

Y____ N____ Optional up to 4 auxiliary: mid-machine scarifier, snow wing mast, snow wing tilt, and dozer angle 1 and dozer angle 2 shall be available.

FRONT AXLE AND TANDEMS

Y____ N____ Front axle oscillation shall be no less than 32 degrees total per side: 16 degrees up, 16 degrees down.

Y____ N____ Front axle shall be an arched design for maximum ground clearance.

Y____ N____ **Wheel spindle shall be a "live" spindle design and rotate inside a sealed compartment with lightweight oil for lubrication of the bearings.**

Y____ N____ **Front spindle shall be heat induction hardened.**

Y____ N____ **Front wheel spindle bearings shall be a double tapered design with the larger diameter bearing mounted closest to the centerline of the front tire.**

Y____ N____ **Front wheel spindle maintenance intervals shall be no less than 2000 hrs.**

Y✓ N____ Front wheel steering angle shall be a maximum of 50 degrees left or right.

Y____ N____ Maximum front wheel lean shall be no less than 18 degrees left or right.

Y____ N____ Mechanical steering stops located at each wheel and steering cylinder relief valves shall be present to prevent steering system damage during normal operation.

Y____ N____ Distance between center of tandem wheels shall be no less than 59.0 in (1498 mm).

Y____ N____ Tandem chain pitch shall not be less than 2.0 in (50.8 mm).

Y✓ N____ Tandems shall be capable of oscillating 15 degrees front tandem up and 25 degrees front tandem down, with full machine articulation and having no interference between tandem wheel and machine structure.

BID SPECIFICATIONS

Y____ N____ Mechanical steering stops located at each wheel and steering cylinder relief valves shall be present to prevent steering system damage during normal operation.
Y____ N____ Steering tie rod ends shall be heat induction hardened.
Y____ N____ Machine shall provide 2 steering cylinders for maximum steering force.
Y____ N____ When equipped with a ripper, the machine shall have a minimum ramp angle of 16.8 degrees.

TIRES AND RIMS

Y____ N____ An 8 in (20.32 cm) by 24 in (60.96 cm) size 3-piece tire rim shall be available to provide mounting for 14.00R24 conventional tires.

TIRES AND RIMS - OPTIONAL ATTACHMENTS

Y____ N____ A 14 in (35.6 cm) by 25 in (63.5 cm) size 3-piece tire rim shall be available to provide mounting for 17.5-R25 tires.
Y____ N____ A 14 in (35.6 cm) by 25 in (63.5 cm) size 3-piece tire rim shall be available to provide mounting for Bridgestone 550/65R25 tires.

OPERATOR STATION

Y____ N____ A 36,680 BTU/h (10.75 kW) heater shall have an integral pressurizer and four-speed brushless fan motor along with A/C. HVAC shall have auto climate control included.
Y____ N____ 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.

Y____ N____ An enclosed cab with ROPS (Rollover Protective Structure) according to ISO 3471:2008 shall be provided.
Y____ N____ Cab door shall have a hold-open clasp with a ground-level release and in addition to, a release in the cab.
Y____ N____ Cab shall be isolation-mounted to the front frame section of the machine.
Y____ N____ Cab shall have fixed front window of laminated glass with intermittent wiper.
Y____ N____ FOPS (Falling Object Protective Structure) shall be provided according to ISO 3449:2005.
Y____ N____ Machine shall have no less than 16 adjustable vents standard positioned to direct air to front windows and operator.
Y____ N____ Radio ready arrangement will include 24V to 12V converter, two speakers, antenna and wiring.
Y____ N____ **An instrument cluster shall be integrated into main tablet style display and include a speedometer, tachometer, coolant temperature, fuel and articulation angle gauge.**
Y____ N____ **10 inch tablet-style touchscreen display shall be high definition, anti-glare, and scratch resistant.**
Y____ N____ Operator cab fresh air filter shall be accessible for clean out and replacement from outside of the cab.
Y____ N____ **Machine shall have the Standard Cat Grade with Cross Slope Assist system fully integrated into the machine design with integral hydraulic and electrical components.**

Y____ N____ A real-time information system shall monitor all system data and alert the operator of any faults through a digital text display. This information system shall be programmable for multiple languages.
Y____ N____ Left and right side cab doors shall be provided.
Y____ N____ Wipers shall be provided on side and rear windows.
Y____ N____ Digital machine hour meter shall be provided.
Y____ N____ An electronic message system shall provide real-time machine performance and diagnostic data.

Y____ N____ The forward visibility shall unobstructed visibility of the blade, heel and toe, back of the cutting edge, and front tires.
Y____ N____ Access to cab shall be three anti-skid steps.

BID SPECIFICATIONS

Y____ N____ Cab shall have cup holder, personal cooler holder/storage compartment for operator's manual, and molded floor mat.

Y____ N____ **Window washer fluid bottle refill spout shall be located external of the cab.**

Y____ N____ **Cab shall have "Split C post" pillars located behind the operator.**

Y____ N____ **Cab shall have heating, ventilation and air conditioning vents/ducts in the cab ceiling/headliner.**

Y____ N____ **Cab shall have door release lever activated from ground level or with the operator's heel without stretching or obstruction to the release.**

Y____ N____ Cab shall have heating, ventilation, and air conditioning vents/ducts in the cab ceiling/headliner.

Y____ N____ Cab shall have door release lever activated from ground level or with the operator heel without stretching or obstruction to the release.

Y____ N____ Cat Detect rear vision with HD camera and rear camera view will display in the machine display as "always on" or display when machine is placed in reverse.

Y____ N____ Cat Grade with Cross Slope Assist system shall be available from the factory in order to ensure proper calibration and installation for improved accuracy and performance. Cat Grade Cross Slope Assist shall include E-fence to assist in preventing damage to tires, ladders and linkbar/saddle.

OPERATOR STATION - OPTIONAL ATTACHMENTS

Y____ N____ Integrated display and wiring for rear vision camera shall be available with capability to view at all times without interfering with the gauge and diagnostic display.

Y____ N____ A rear sun shade shall be available.

Y____ N____ A rear defroster fan shall be available.

Y____ N____ An air suspension seat shall be available.

Y____ N____ Heated and ventilated air suspension seat shall be available.

Y____ N____ Cab shall have sliding side windows available.

Y____ N____ Cab shall have "B" pillar mirrors increasing visibility to the rear of the machine and ripper.

Y____ N____ Wipers shall be provided on side and rear windows.

TECHNOLOGY - OPTIONAL ATTACHMENTS

Y____ N____ Auto Articulation shall be available.

Y____ N____ Cat Grade 3D Ready Plus is an active two 2D system with functional Cat Grade Cross Slope Assist system including E-fence. Cat Grade 3D Ready Plus shall include 2D Advance Licenses for Trimble sonic or laser systems. The 3D mastless components are integrated into the machine and can be activated with dealer license codes.

Y____ N____ Cat Grade with 3D mastless integrated system shall be available from the factory in order to ensure proper grade accuracy within 30 mm.

Y____ N____ Manufacturer must provide Stable Grade sensor and software to automatically reduce engine speed in various applications to reduce machine bounce and scalloping of surface.

DRAWBAR, CIRCLE, MOLDBOARD (DCM)

Y<u>X</u> N____ Top adjust DCM 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.

Y<u>X</u> N____ The drawbar shall feature welded protective wear plates to prevent lift group contact with the primary drawbar structure.

Y____ N____ The standard moldboard plus cutting edges width shall be at least 12 ft (3658 mm); moldboard plus cutting edges height shall be at least 21.9 in (556 mm); moldboard thickness shall be 0.9 in (22 mm); and cutting edge height shall be 6.0 in x 0.6 in (152 x 16 mm).

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

BID SPECIFICATIONS

Y____ N____ Moldboard shall have no less than 16.3 in (413 mm) arc radius (blade curvature) for optimum productivity.

Y____ N____ Top adjust DCM moldboard retention system shall have no more than two retention points located on the left and right side of the moldboard. The surface area shall not be less than 85.76 in² (55,332 mm²).

Y____ N____ Moldboard shall have a hydraulic tip control through a range of 40 degrees fore and 5 degrees aft.

Y____ N____ **Standard top adjust moldboard wear strips shall be adjusted with lock screws, providing shimless adjustment capability both vertical & horizontal.**

Y____ N____ The moldboard shall be pre-stressed during manufacturing for superior strength and durability.

Y____ N____ Moldboard slide rails shall be constructed of a heat-treated, high carbon steel and have replaceable bronze alloy wear inserts on top and bottom.

Y____ N____ Circle shall be a single piece, rolled-ring forging, with raised wear surfaces on the top and bottom.

Y X N____ Circle shall be rotated by a hydraulically driven motor with a minimum circle pinion torque capability of 12,538.56 ft-lb (17,000 N-m).

Y____ N____ **Circle teeth contact surfaces shall be induction-hardened on the front 240 degrees of the circle.**

Y____ N____ Blade lift and center shift cylinders shall have replaceable bronze coated steel wear inserts in the ball sockets with removable shims to insure the ability to remove free play throughout the useful wear insert life.

Y____ N____ **The standard mounting hardware for cutting edges and end bits shall be 3/4 in (16 mm).**

Y____ N____ **Link bar shall have large diameter 7 positions for increased versatility, the center most of which bear replaceable bushings.**

Y____ N____ Linkbar pin shall be separate from pin pulling mechanism for easier service and lower O&O costs.

Y____ N____ The lift cylinder casting shall be welded to the front frame for added strength and structural integrity.

Y____ N____ The draft frame pivot connection shall have a single ball stud with grease zerk. Ball stud shall be bolt-on, shimable and adjustable to allow for quick and easy field serviceable design.

Y____ N____ Pinion Gear shall be separate from the pinion shaft to allow for a quick and easy serviceable design.

Y____ N____ Circle outside diameter shall be no less than 60.2 in (1530 mm).

Y____ N____ Throat clearance with standard moldboard shall be at least 410 mm.

Y____ N____ A greaseable moldboard pivot pin shall be available as standard equipment.

Y X N____ There will be no more than 6 replaceable wear inserts between the circle and drawbar providing at least 120 in² (770 cm²) of wear surface area and 6 additional wear strips on circle shoes totaling 19 in² (122 cm²).

CIRCLE AND MOLDBOARD - OPTIONAL ATTACHMENTS

Y____ N____ The standard moldboard plus cutting edges width shall be at least 12 ft (3658 mm); moldboard plus cutting edges height shall be at least 21.9 in (556 mm); moldboard thickness shall be 0.9 in (22 mm); and cutting edge height shall be 6.0 in x 0.6 in (152 x 16 mm).

Y____ N____ The optional 14 foot moldboard plus cutting edges width shall be at least 14 ft (4267 mm); moldboard plus cutting edges height shall be at least 23.1 in (587 mm); moldboard thickness shall be 0.9 in (22 mm); and cutting edge height shall be 8.0 in x 0.7 in (203 x 19 mm).

Y X N____ Blade lift accumulators shall be provided, protecting cutting edge and other components from damage from shock loads as an option.

Y____ N____ Three sideshift anchor positions shall be provided for extended reach capability on optional 14 foot moldboard.

Y____ N____ 2 ft right-hand blade extension shall be available for all moldboards.

BID SPECIFICATIONS

Y____ N____ 2 ft left-hand blade extension shall be available for all moldboards.

Y____ N____ **Optional High Performance Circle (HPC) shall be available from the factory. HPC replaces shims, shoes and wear inserts for drawbar to circle connection with an excavator bearing. Easy greasing of the HPC shall be completed in a nested grease bank.**

Y____ N____ **Optional HPC must have drain holes on the bottom side and a segmented ring for inspection.**

Y____ N____ **Optional Grader Bit2 adapter boards and standard or wide bits shall be available from the factory as a replacement for cutting edge. Grader bits provide up to 20 times life of cutting edge in the correct application.**

ELECTRICAL

YX N____ Machine shall have a 150 amp hour, 1125 CCA heavy-duty battery.

YX N____ Machine shall have a minimum 150 amp alternator at 24 volts provided which is brushless for increased life and durability.

Y____ N____ A 24 V to 12 V converter with 15-amp capacity shall be provided.

Y____ N____ Starting system shall be a 24 V direct electric type.

Y____ N____ LED white reversing lamps and LED stop lamps shall be provided.

Y____ N____ Electrical system shall have a master disconnect switch with a removable key (in addition to the ignition switch) accessible from the ground level.

Y____ N____ All core machine systems shall be electronically connected, optimizing performance and preventing machine damage.

Y____ N____ All wiring shall be arranged and located so as to facilitate regular visual inspections, not be in contact with hot surfaces, and not routed with other services lines such as fuel and oil.

Y____ N____ All harnesses / cabling shall be secured with clipping clamps providing a gap between the conduit / harness and the mounting surface preventing material build-up.

ELECTRICAL - OPTIONAL ATTACHMENTS

Y____ N____ Machine shall have 200 amp hour 1400 CCA extreme duty batteries available.

Y____ N____ Machine shall have a 200 amp alternator at 24 volts available which is brushless for increased life and durability.

Y____ N____ Drop down lights shall be available to move LED stop lamps out to the width of the machine.

Y____ N____ There shall be quantity six (6) 3.75 in (95 mm) round LED mounted on the cab, 4 forward facing and 2 rear facing available as an option.

Y____ N____ There shall be quantity two (2) 3.75 in (95 mm) round LED heel work lamps mounted underneath the cab available as an option.

Y____ N____ There shall be quantity two (2) 3.75 in (95 mm) round LED mid-frame toe lamps shall be available to illuminate moldboard and surrounding area available as an option.

Y____ N____ There shall be quantity two (2) 3.75 in (95 mm) round LED ripper work lamps available as an option.

Y____ N____ There shall be quantity two (2) 3.75 in (95 mm) round LED snow wing work lamps mounted on right side of cab available as an option.

Y____ N____ High or low bar headlights with front turn signals shall be available.

Y____ N____ Four warning lights shall be integrated in the each side of the cab available as an option.

Y____ N____ Optional warning light with beacon mount shall be available.

Y____ N____ A 24 V to 12 V converter with 30 amp capacity shall be available.

SERVICEABILITY

Y____ N____ The dip stick for checking transmission fluid shall be at ground level.

Y____ N____ Hydraulic tank site gauge shall be readable at ground level.

Y____ N____ Hydraulic tank filter shall be a cartridge-style filter located near the hydraulic oil tank.

Y____ N____ Ability for ground level fueling shall be provided.

BID SPECIFICATIONS

Y____ N____ Sampling ports shall be accessible from the tandem level and provide access to the engine, hydraulic, coolant, and fuel ports.

Y____ N____ A two-way communication tool shall give service technicians easy access to stored diagnostic data and allow configuration of machine parameters.

Y____ N____ Machine shall provide three points of contact on all areas of the machine for mounting and dismounting.

Y✓ N____ The articulation joint shall have mechanical locking device to prevent frame articulation while servicing or transporting machine.

Y____ N____ Left- and right-side tandem case assemblies shall be covered with a punched steel plate to provide an adequate platform for standing and walking.

Y____ N____ Sampling ports shall be accessible from the tandem level and provide access to the engine, hydraulic, coolant, and fuel ports.

Y____ N____ **Engine primary and final fuel filters shall have 1000 hour service replacement interval.**

Y____ N____ Engine shall have primary fuel filter with fuel water separator and electronic sensor, quick release dual stage filter, and primer pump.

Y____ N____ The centralized lube bank shall be at the articulation joint to give access to difficult zerks.

Y____ N____ Transmission filter restriction indicator shall be displayed in the cab.

Y____ N____ Lock out / Tag out capabilities shall be provided standard and increase the safety levels during down time. This ensures that an energy-isolating device and the machine cannot be operated during maintenance.

Y____ N____ Remote machine diagnostics shall be available.

Y____ N____ Operator-initiated remote software flash shall be available.

Y____ N____ Planned Maintenance (PM) alerts shall be available to alert the operator and alerts can be populated via VisionLink™.

Y____ N____ Diesel fuel fill shall be ground level in the front frame of the machine and not require a fuel tank external of the front frame.

SERVICEABILITY - OPTIONAL ATTACHMENTS

Y____ N____ High-speed oil drain system shall be available with ground level quick connect access.

Y✓ N____ A guard shall be available to protect the machine's transmission from debris.

Y____ N____ A guard shall be available to suppress sound from the engine.

Y____ N____ A guard for the rear cab windows shall be available.

Y____ N____ An internal service lights shall be available to illuminate engine compartment.

Y____ N____ A circle pinion grease bucket, known as circle saver, with remote grease line shall be available for standard top adjust DCM.

Y____ N____ A cover shall be available for under cab.

Y✓ N____ No-tool removal of the engine enclosure and lower engine compartment shall be available for easier maintenance and service of the machine.

MINIMUM SERVICE FILL CAPACITIES

Y____ N____ Standard fuel tank capacity shall not be more than 98 gallons (371 L).

Y____ N____ Standard cooling system capacity shall not be less than 14.3 gallons (54 L)

Y____ N____ Standard hydraulic tank capacity shall not be more than 32.5 gallons (123 L).

Y____ N____ Standard engine oil capacity shall not be less than 5.3 gallons (20 L).

Y____ N____ Standard tandem housing capacity shall not be less than 18.5 gallons (70 L) each.

Y____ N____ Standard transmission and differential oil capacity shall not be less than 15.9 gallons (60 L).

Y____ N____ Standard front wheel spindle bearing housing capacity shall not be less than 0.2 gallons (0.6 L).

Y____ N____ Standard circle drive housing capacity shall not be less than 1.8 gallons (7 L).

Y____ N____ Optional HPC circle drive housing capacity shall not be less than 2.5 gallons (9.5 L).

Y____ N____ Diesel exhaust fluid (DEF) tank capacity shall not be less than 4.5 gallons (17 L).

SAFETY AND ENVIRONMENTAL

BID SPECIFICATIONS

Y X N____ **A standard circle drive slip clutch shall be provided to reduce horizontal moldboard impact damage.**

Y____ N____ Black glare-reducing paint shall be used on the front frame and engine enclosure to decrease glare from other equipment lights and reflection from the sun and snow.

Y____ N____ **An external emergency kill switch shall be available for ground level engine shut down.**

Y____ N____ Machine shall have laminated glass for the front windows and doors, to protect the operator from shattered glass.

Y____ N____ Machine shall provide dual exits allowing for emergency egress should one side become obstructed.

Y____ N____ Electrical system shall have a master disconnect switch with a removable key and lock for added safety (in addition to the ignition switch).

Y____ N____ Machine shall have back-up lights and sounding alarm when reverse gears are selected.

Y____ N____ Environmentally friendly drain valves shall be provided for the hydraulic oil, engine oil, engine coolant, transmission, differential and fuel tank.

Y____ N____ Cooling fan shall have a shroud and rear grill for protection during service.

Y____ N____ Machine shall allow cab interior and exterior lights to remain on, separate from ignition switch, for safe exit of the machine during night operation.

Y____ N____ Engine and transmission shall be rubber isolation mounted to reduce noise and vibration.

Y____ N____ Rear vision camera shall be integrated into machine display and wiring shall be available.

Y____ N____ Display Passcode shall be available to assist with machine security.

SAFETY AND ENVIRONMENTAL - OPTIONAL ATTACHMENTS

Y____ N____ A guard shall be available to protect the machine's transmission from debris.

Y____ N____ Front and rear vision cameras shall be available.

Y____ N____ Cat Detect 360° camera shall be available with four cameras.

Y____ N____ Cat Detect 360° camera with People Detection shall be available.

Y____ N____ Blade lift accumulators shall be available as an option to reduce vertical impact damage.

Y____ N____ Drop down rear lights (stop and turn signal lights) shall be available to span the profile of the machine for increased safety.

Y____ N____ Outside mounted mirrors (optional heated) shall be available.

Y____ N____ Bluetooth key FOBs are available for additional security.

ADDITIONAL FEATURES

Y____ N____ Rear ripper shall have 5 ripper shank holders.

Y____ N____ Rear ripper shall have a working penetration of maximum 16.0 in (406.4 mm) and a penetration force of at least 19,018 lb (8,626 kg).

Y____ N____ Rear fenders shall meet ISO:3457 requirements and shall not interfere with the ability to fully open any cab or engine enclosures or service access doors.

Y____ N____ All core machine systems shall be electronically connected optimizing performance and preventing machine damage.

OPTIONAL ATTACHMENTS

Y____ N____ An integrated communication tool providing flow of vital machine data and location shall be available. This system shall give automatic updates on machine parameters such as machine hours, machine condition, location, fault codes, and alarms.

Y____ N____ Machine shall have a engine coolant circulating heater available.

Y____ N____ Machine shall have a transmission solenoid valve guard available.

Y____ N____ A mid-machine scarifier shall be available.

Y____ N____ A dedicated front blade shall be available.

Y____ N____ A front mount scarifier shall be available from Caterpillar attachments.

Y____ N____ A front lift group shall be available.

BID SPECIFICATIONS

Y____ N____ A pushblock/counterweight shall be available.
Y____ N____ A rear ripper shall be available.
Y____ N____ Rear fenders option shall be available.
Y____ N____ Mastless snow wing shall be available.
Y____ N____ Masted snow wing shall be available.

Bid specs are intended for use by North American buyers only and are subject to change. Model configuration may change depending on country of use. Please contact your local Caterpillar dealer for the most up-to-date specifications for your area.

Effective with sales to the first user on or after June 1, 2015

CATERPILLAR LIMITED WARRANTY

For Selected Machine Models Designated by Caterpillar with 12 Month/Unlimited Hour Warranty

Worldwide

Caterpillar Inc. or any of its subsidiaries ("Caterpillar") warrants the following products sold by it to be free from defects in material and workmanship:

- New earthmoving, construction, material handling, forestry product, paving product, compact wheel loader, mini hydraulic excavator, skid steer loader, multi terrain loader, and compact track loader machines designated by Caterpillar as having 12 -months/unlimited hour warranty. See your Cat® dealer for a complete listing of covered models.
- Attachments/work tools installed on such machines prior to delivery (unless covered by the Cat Work Tool warranty statement or another manufacturer's warranty). Hammer tool points and compacting plates used on hydraulic hammers are not warranted.

An additional warranty against breakage is applicable to certain Cat ground engaging tools. An additional warranty against wear is applicable to all landfill compactor tips when used in residential waste landfills. Refer to the applicable warranty statements for coverage detail.

This warranty does not apply to:

- Cat Batteries
- Mobil-trac belts, rubber tracks used on multi terrain loaders, compact track loaders, and mini hydraulic excavators
- Cat Work Tools
- Select models designated by Caterpillar that are sold in India and China

These products are covered by other Caterpillar warranties.

This warranty is subject to the following:

Warranty Period

For new machines and work tools/attachments the warranty period is 12-months/unlimited hours, starting from date of delivery to the first user.

Note:

- For hydraulic line's quick connect/disconnect components sold on compact wheel loaders, mini hydraulic excavators, skid steer loaders, multi terrain loaders, and compact track loader machines, the warranty period is 50 hours starting from the date of delivery to the first user.
- For Draglines, Electric Rope Shovels, Hard Rock Movers, Hard Rock Feeders; the warranty period is not to exceed 24 months from shipment of the last major component from the Caterpillar place of manufacture.

Caterpillar Responsibilities

If a defect in material or workmanship is found during the warranty period, Caterpillar will, during normal working hours and at a place of business of a Cat dealer or other source approved by Caterpillar:

- Provide (at Caterpillar's choice) new, remanufactured, or Caterpillar approved repaired parts or assembled components needed to correct the defect.

  Note: New, remanufactured, or Caterpillar approved replacement parts provided under the terms of this warranty are warranted for the remainder of the warranty period applicable to the product in which installed as if such parts were original components of that product. Items replaced under this warranty become the property of Caterpillar.

- Replace lubricating oil, filters, antifreeze, and other service items made unusable by the defect.
- Provide reasonable and customary labor needed to correct the defect.

User Responsibilities

The user is responsible for:

- Providing proof of delivery date to the first user.
- Labor costs, except as stated under "Caterpillar Responsibilities."
- Transportation costs, except as stated under "Caterpillar Responsibilities."
- Premium or overtime labor costs.
- Parts shipping charges in excess of those that are considered usual and customary.
- Local taxes, if applicable.
- Costs to investigate complaints, unless the problem is caused by a defect in Caterpillar material or workmanship.
- Giving timely notice of a warrantable failure and promptly making the product available for repair.
- Performance of the required maintenance (including use of proper fuel, oil, lubricants, and coolant) and items replaced due to normal wear and tear.
- Allowing Caterpillar access to all electronically stored data.

Limitations

Caterpillar is not responsible for:

- Failures resulting from any use or installation that Caterpillar judges improper.
- Failures resulting from attachments, accessory items, and parts not sold or approved by Caterpillar.
- Failures resulting from abuse, neglect, and/or improper storage or repair.
- Failures resulting from user's delay in making the product available after being notified of a potential product problem.
- Failures resulting from unauthorized repair or adjustments, and unauthorized fuel setting changes.

(Continued on the reverse side....)

This warranty covers every major component of the products. Claims under this warranty should be submitted to a place of business of a Cat dealer or other source approved by Caterpillar. For further information concerning either the location to submit claims or Caterpillar as the issuer of this warranty, write Caterpillar Inc., 100 N. E. Adams St., Peoria, IL USA 61629.

Caterpillar's obligations under this Limited Warranty are subject to, and shall not apply in contravention of, the laws, rules, regulations, directives, ordinances, orders, or statutes of the United States, or of any other applicable jurisdiction, without recourse or liability with respect to Caterpillar.

A) For products operating outside of Australia, Fiji, Nauru, New Caledonia, New Zealand, Papua New Guinea, the Solomon Islands, and Tahiti, the following is applicable:

NEITHER THE FOREGOING EXPRESS WARRANTY NOR ANY OTHER WARRANTY BY CATERPILLAR, EXPRESS OR IMPLIED, IS APPLICABLE TO ANY ITEM CATERPILLAR SELLS THAT IS WARRANTED DIRECTLY TO THE USER BY ITS MANUFACTURER.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EXCEPT CATERPILLAR EMISSION-RELATED COMPONENTS WARRANTY FOR NEW ENGINES, WHERE APPLICABLE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN.

CATERPILLAR IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

CATERPILLAR EXCLUDES ALL LIABILITY FOR OR ARISING FROM ANY NEGLIGENCE ON ITS PART OR ON THE PART OF ANY OF ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN RESPECT OF THE MANUFACTURE OR SUPPLY OF GOODS OR THE PROVISION OF SERVICES RELATING TO THE GOODS.

IF OTHERWISE APPLICABLE, THE VIENNA CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS IS EXCLUDED IN ITS ENTIRETY.

B) For products operating in Australia, Fiji, Nauru, New Caledonia, New Zealand, Papua New Guinea, the Solomon Islands, and Tahiti, the following is applicable:

THIS WARRANTY IS IN ADDITION TO WARRANTIES AND CONDITIONS IMPLIED BY STATUTE AND OTHER STATUTORY RIGHTS AND OBLIGATIONS THAT BY ANY APPLICABLE LAW CANNOT BE EXCLUDED, RESTRICTED OR MODIFIED ("MANDATORY RIGHTS"). ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED (BY STATUTE OR OTHERWISE), ARE EXCLUDED. WITHOUT LIMITING THE FOREGOING PROVISIONS OF THIS PARAGRAPH, WHERE A PRODUCT IS SUPPLIED FOR BUSINESS PURPOSES, THE CONSUMER GUARANTEES UNDER THE CONSUMER GUARANTEES ACT 1993 (NZ) WILL NOT APPLY.

NEITHER THIS WARRANTY NOR ANY OTHER CONDITION OR WARRANTY BY CATERPILLAR, EXPRESS OR IMPLIED (SUBJECT ONLY TO THE MANDATORY RIGHTS), IS APPLICABLE TO ANY ITEM CATERPILLAR SELLS THAT IS WARRANTED DIRECTLY TO THE USER BY ITS MANUFACTURER.

IF THE MANDATORY RIGHTS MAKE CATERPILLAR LIABLE IN CONNECTION WITH SERVICES OR GOODS, THEN TO THE EXTENT PERMITTED UNDER THE MANDATORY RIGHTS, THAT LIABILITY SHALL BE LIMITED AT CATERPILLAR'S OPTION TO (a) IN THE CASE OF SERVICES, THE SUPPLY OF THE SERVICES AGAIN OR THE PAYMENT OF THE COST OF HAVING THE SERVICES SUPPLIED AGAIN AND (b) IN THE CASE OF GOODS, THE REPAIR OR REPLACEMENT OF THE GOODS, THE SUPPLY OF EQUIVALENT GOODS, THE PAYMENT OF THE COST OF SUCH REPAIR OR REPLACEMENT OR THE ACQUISITION OF EQUIVALENT GOODS.

CATERPILLAR EXCLUDES ALL LIABILITY FOR OR ARISING FROM ANY NEGLIGENCE ON ITS PART OR ON THE PART OF ANY OF ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN RESPECT OF THE MANUFACTURE OR SUPPLY OF GOODS OR THE PROVISION OF SERVICES RELATING TO THE GOODS.

CATERPILLAR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES UNLESS IMPOSED UNDER MANDATORY RIGHTS. IF OTHERWISE APPLICABLE, THE VIENNA CONVENTION (CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS) IS EXCLUDED IN ITS ENTIRETY.

C) For products supplied in Australia:

IF THE PRODUCTS TO WHICH THIS WARRANTY APPLIES ARE:

I. PRODUCTS OF A KIND ORDINARILY ACQUIRED FOR PERSONAL, DOMESTIC OR HOUSEHOLD USE OR CONSUMPTION; OR

II. PRODUCTS THAT COST AUD 40,000 OR LESS,

WHERE THOSE PRODUCTS WERE NOT ACQUIRED FOR THE PURPOSE OF RE-SUPPLY OR FOR THE PURPOSE OF USING THEM UP OR TRANSFORMING THEM IN THE COURSE OF PRODUCTION OR MANUFACTURE OR IN THE COURSE OF REPAIRING OTHER GOODS OR FIXTURES, THEN THIS SECTION C APPLIES.

THE FOLLOWING MANDATORY TEXT IS INCLUDED PURSUANT TO THE AUSTRALIAN CONSUMER LAW AND INCLUDES REFERENCES TO RIGHTS THE USER MAY HAVE AGAINST THE DIRECT SUPPLIER OF THE PRODUCTS: OUR GOODS COME WITH GUARANTEES THAT CANNOT BE EXCLUDED UNDER THE AUSTRALIAN CONSUMER LAW. YOU ARE ENTITLED TO A REPLACEMENT OR REFUND FOR A MAJOR FAILURE AND COMPENSATION FOR ANY OTHER REASONABLY FORESEEABLE LOSS OR DAMAGE. YOU ARE ALSO ENTITLED TO HAVE THE GOODS REPAIRED OR REPLACED IF THE GOODS FAIL TO BE OF ACCEPTABLE QUALITY AND THE FAILURE DOES NOT AMOUNT TO A MAJOR FAILURE. THE INCLUSION OF THIS TEXT DOES NOT CONSTITUTE ANY REPRESENTATION OR ACCEPTANCE BY CATERPILLAR OF LIABILITY TO THE USER OR ANY OTHER PERSON IN ADDITION TO THAT WHICH CATERPILLAR MAY HAVE UNDER THE AUSTRALIAN CONSUMER LAW.

TO THE EXTENT THE PRODUCTS FALL WITHIN THIS SECTION C BUT ARE NOT OF A KIND ORDINARILY ACQUIRED FOR PERSONAL, DOMESTIC OR HOUSEHOLD USE OR CONSUMPTION, CATERPILLAR LIMITS ITS LIABILITY TO THE EXTENT IT IS PERMITTED TO DO SO UNDER THE AUSTRALIAN CONSUMER LAW TO, AT ITS OPTION, THE REPAIR OR REPLACEMENT OF THE PRODUCTS, THE SUPPLY OF EQUIVALENT PRODUCTS, OR THE PAYMENT OF THE COST OF SUCH REPAIR OR REPLACEMENT OR THE ACQUISITION OF EQUIVALENT PRODUCTS.

THE WARRANTY SET OUT IN THIS DOCUMENT IS GIVEN BY CATERPILLAR INC. OR ANY OF ITS SUBSIDIARIES, 100 N. E. ADAMS ST, PEORIA, IL USA 61629, TELEPHONE 1 309 675 1000,THE USER IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH MAKING A CLAIM UNDER THE WARRANTY SET OUT IN THIS DOCUMENT, EXCEPT AS EXPRESSLY STATED OTHERWISE IN THIS DOCUMENT, AND THE USER IS REFERRED TO THE BALANCE OF THE DOCUMENT TERMS CONCERNING CLAIM PROCEDURES, CATERPILLAR RESPONSIBILITIES AND USER RESPONSIBILITIES.

TO THE EXTENT PERMISSIBLE BY LAW, THE TERMS SET OUT IN THE REMAINDER OF THIS WARRANTY DOCUMENT (INCLUDING SECTION B) CONTINUE TO APPLY TO PRODUCTS TO WHICH THIS SECTION C APPLIES.

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Edit Company Profile
Add New User
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My Reports
View Reports
My Resources
View Essential Resources
Take Tutorial
View User Manual
Contact Us

Company Information

View / Edit

Company Name: Thompson Tractor Co., Inc.

Company ID Number: 47130

Doing Business As (DBA) Name:

DUNS Number:

Physical Location:

Address 1: 2401 Pinson Highway
Address 2:
City: Birmingham
State: AL
Zip Code: 35217
County: JEFFERSON

Mailing Address:

Address 1: P O. Box 10367
Address 2:
City: Birmingham
State: AL
Zip Code: 35202-0367

Additional Information:

Employer Identification Number: 630377478
Total Number of Employees: 1,000 to 2,499
Parent Organization:
Administrator:

Organization Designation:

Employer Category:

NAICS Code: 423 - MERCHANT WHOLESALERS, DURABLE GOODS — View / Edit

Total Hiring Sites: 40 — View / Edit

Total Points of Contact: 3 — View / Edit

View MOU

Form **W-9**
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give form to the requester. Do not send to the IRS.

Print or type See Specific Instructions on page 2.

Name (as shown on your income tax return)
Thompson Tractor Co., Inc. DBA Thompson Power Systems, Thompson Lift Truck Co.

Business name, if different from above
and The Cat Rent Store

Check appropriate box: ☐ Individual/Sole proprietor ☒ Corporation ☐ Partnership
☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ .....
☐ Other (see instructions) ▶

☒ Exempt payee

Address (number, street, and apt. or suite no.)
P O Box 10367 2401 Pinson Hwy. Tarrant, AL 35217

Requester's name and address (optional)

City, state, and ZIP code
Birmingham, AL 35202-0367

List account number(s) here (optional)
Lockbox Remit To: P O Box 934065, Atlanta, GA 31193-4005

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
: :

or

Employer identification number
63 : 0377478

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person ▶ Linda K Duncan, Controller Date ▶

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Company ID Number: 47130

INFORMATION REQUIRED
FOR THE E-VERIFY PROGRAM

Information relating to your Company:

Company Name:	**Thompson Tractor Co., Inc.**
Company Facility Address:	**2401 Pinson Highway** **Birmingham, AL 35217**
Company Alternate Address:	**P.O. Box 10367** **Birmingham, AL 35202-0367**
County or Parish:	**JEFFERSON**
Employer Identification Number:	**630377478**
North American Industry Classification Systems Code:	**423**
Parent Company:	
Number of Employees:	**1,000 to 2,499**
Number of Sites Verified for:	**5**

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State.

- GEORGIA 5 site(s)

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name:	**Kimberly A Stark**		
Telephone Number:	**(205) 849 - 4279**	Fax Number:	**(205) 849 - 4565**
E-mail Address:	**kimberlystark@thompsontractor.com**		
Name:	**Frank M Wright**		
Telephone Number:	**(205) 849 - 4267**	Fax Number:	**(205) 849 - 4854**
E-mail Address:	**frankwright@thompsontractor.com**		

Company ID Number: 47130

USCIS Verification Division	
Name (Please type or print)	Title
Electronically Signed	**07/11/2007**
Signature	Date

the Employer issues a tentative nonconfirmation based upon a photo non-match. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

4. If the employee contests a tentative nonconfirmation issued by DHS, the Employer will provide the employee with a referral letter and instruct the employee to contact the Department through its toll-free hotline within 8 Federal Government work days.

5. If the employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will provide the employee with a referral letter to DHS. DHS will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary.

6. The Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will send a copy of the employee's Form I-551 or Form I-766 to DHS for review by:

- Scanning and uploading the document, or
- Sending a photocopy of the document by an express mail account (furnished and paid for by DHS).

7. The Employer understands that if it cannot determine whether there is a photo match/non-match, the Employer is required to forward the employee's documentation to DHS by scanning and uploading, or by sending the document as described in the preceding paragraph, and resolving the case as specified by the Immigration Services Verifier at DHS who will determine the photo match or non-match.

ARTICLE IV

SERVICE PROVISIONS

The SSA and DHS will not charge the Employer for verification services performed under this MOU. The Employer is responsible for providing equipment needed to make inquiries. To access the E-Verify System, an Employer will need a personal computer with Internet access.

ARTICLE V

PARTIES

This MOU is effective upon the signature of all parties, and shall continue in effect for as long as the SSA and DHS conduct the E-Verify program unless modified in writing by the mutual consent of all parties, or terminated by any party upon 30 days prior written notice to the others. Any and all system enhancements to the E-Verify program by DHS or SSA, including but not limited to the E-Verify checking against additional data sources and instituting new verification procedures, will be covered under this MOU and will not cause the need for a supplemental MOU that outlines these changes. DHS agrees to train employers on all changes made to E-Verify through the use of mandatory refresher tutorials and updates to the E-Verify manual. Even

without changes to E-Verify, the Department reserves the right to require employers to take mandatory refresher tutorials.

Termination by any party shall terminate the MOU as to all parties. The SSA or DHS may terminate this MOU without prior notice if deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the Employer, or a failure on the part of the Employer to comply with established procedures or legal requirements. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as they may determine.

Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the Employer, its agents, officers, or employees.

Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the Employer and any other person or entity regarding the applicability of Section 403(d) of IIRIRA to any action taken or allegedly taken by the Employer.

The employer understands that the fact of its participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, and responses to inquiries under the Freedom of Information Act (FOIA).

The foregoing constitutes the full agreement on this subject between the SSA, DHS, and the Employer.

The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer and DHS respectively.

To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify Operations at 888-464-4218.

Employer Thompson Tractor Co., Inc.

Frank M Wright	
Name (Please type or print)	Title
Electronically Signed	**07/11/2007**
Signature	Date

Department of Homeland Security – Verification Division