



# Cat<sup>®</sup> Smart Grader Blade

SKID STEER LOADERS  
COMPACT TRACK LOADERS

Cat<sup>®</sup> Smart Grader Blade attachments are for cutting, moving and grading dirt, gravel, sand and virtually any other material used as a base. The Smart Grader Blade brings cross slope to skid steer loader and compact track loader platforms. The combination of these features along with the support of the Cat dealer network makes this attachment Industry leading due to the industry first features.

What makes the GB120 and GB124 grader blades Smart? The first step is attachment recognition. The D3 host machine recognizes that there is a Smart Grader Blade attached to the machine. This unlocks additional, dedicated machine display screens to allow the operator to interface with the machine and have options on how the attachment is controlled. And as a Smart attachment, the Smart Grader Blade allows for mode select and pattern change. That is, the existing machine joysticks are repurposed to perform functions on the attachment.

## Features:

### Full modulated joystick control

- Full modulated joystick control operates the attachment with right joystick. Main functions are incorporated into joystick for an intuitive operator experience.

### Dedicated display screens

- Dedicated display screens provide feedback to operator on blade slope (tilt) and blade rotation angle.
- Optional machine mounted IMU (inertial measurement unit) provides orientation for mainfall (front/back) and cross slope (side to side) of host machine.

### Cross slope control

- Cross slope control allows the operator to place the blade at desired tilt and the attachment works to maintain that slope.
- Operator can control both cylinders (in tandem) or choose to control left or right cylinder and the attachment controls the other.

### Optional wings

- Optional wings enable control of blade edge, similar to side shift.
- Carry material like the Cat Box Blade.

### Grade Control ready

- Ready for external reference.
  - Earthworks GO!
  - Cat Grade

### Fixed mast mounting points

- Fixed mast mounting points are standard for Laser Technology. Bolt pattern fits Cat Grade standard and GNSS (Global Navigation Satellite System) masts.

### Independent front axle stability wheels

- Independent front axle stability wheels are on 360° casters to provide support for forward and reverse grading.

### OMM container

- OMM (Operation and Maintenance Manual) container is a protective case on the attachment, where the OMM can be conveniently accessed.

## Compatibility

Model	Machines
GB120	226D3, 232D3, 236D3, 239D3, 242D3, 246D3, 249D3, 257D3, 259D3, 262D3, 272D3, 272D3 XE, 279D3, 289D3, 299D3, 299D3 XE
GB124	226D3, 232D3, 236D3, 239D3, 242D3, 246D3, 249D3, 257D3, 259D3, 262D3, 272D3, 272D3 XE, 279D3, 289D3, 299D3, 299D3 XE

Compatible with standard flow, high flow, high flow XPS, and XE machines.

Current production machines listed. Machine model availability and attachment vary by region. Contact your local Cat dealer for exact compatibility and availability.



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## Operator Assist – Cross Slope

Cross Slope allows the operator to place the blade at a desired slope (tilt) and the attachment assists in the correction of the moldboard to maintain. The operator chooses which side they want to control, and the attachment corrects the opposite side. Three control patterns:

- Tandem – Operator controls both cylinders
- Left – Operator controls left lift cylinder
- Right – Operator controls right lift cylinder

Also maintains slope through rotation of blade. As the blade rotates, the desired cross slope is maintained through cross slope. Cross slope is standard on GB120 and GB124 with the standard slope and rotation sensors.

## Memory/Recall/Mirror – (3 button)

This function can be used to program and recall a set blade slope position. Press and hold the memory button for one or more seconds to program the new position. Afterwards, the button can be pressed and released to return to the set position. The button can be pressed twice quickly to mirror the blade slope of the memory position. Operator Assist must be active to use this feature.

## Return to Zero – (4 button)

Press and release this button to return to a blade slope of zero. Operator Assist must be active to use this feature.

## Indication

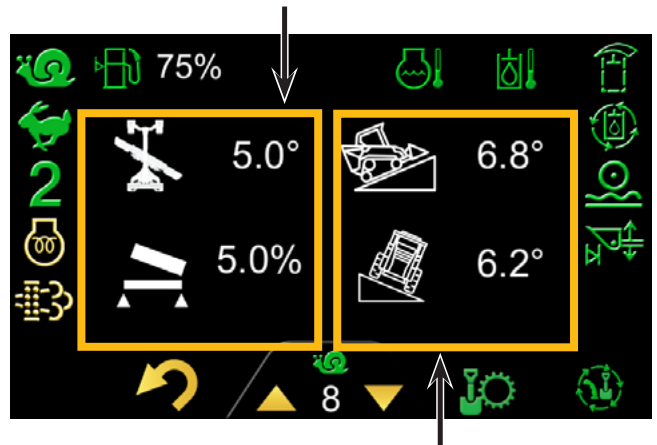
Once the Smart Grader Blade is attached, and the additional screens are unlocked, the operator now has indication available on the monitor. The standard indication for the GB120 and GB124 is attachment information.

- Blade rotation degrees or angle
- Blade cross slope

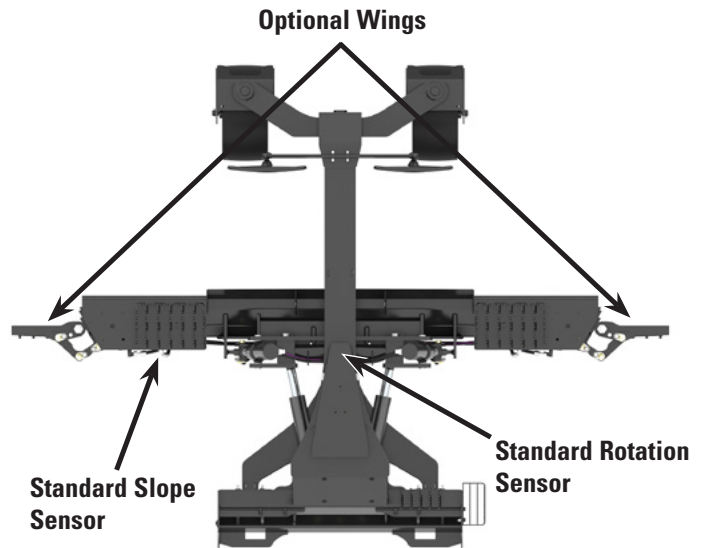
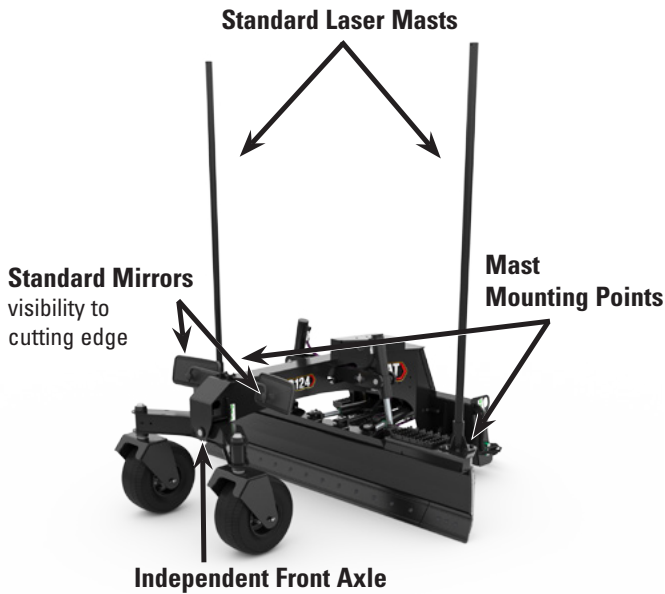
With the optional sensor for the machine side, the operator can have two additional indications on the machine orientation.

- Machine mainfall (front and back)
- Machine cross slope (side to side)

## Standard indication of Smart Grader



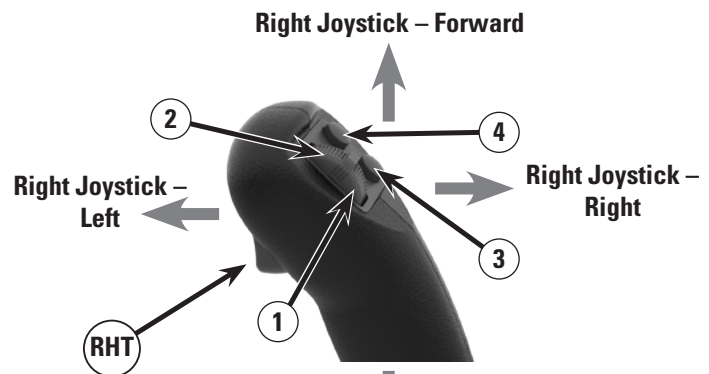
## Optional machine indication with optional sensor installed



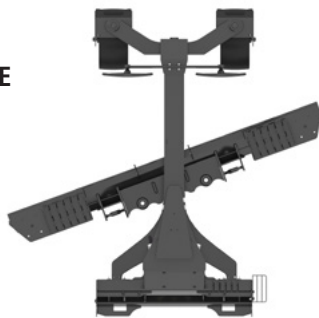
## Joystick Operation

Command	Manual	Assist	Auto
1		Angle Right	
2		Angle Left	
Right Joystick – Forward		Lower Blade	
Right Joystick – Back		Raise Blade	
Right Joystick – Right		Tilt Right	
Right Joystick – Left		Tilt Left	
RHT (right hand trigger)	Toggle between Machine and Attachment Mode		
3	N/A	Memory/Recall/Mirror	Decrement
4	N/A	Return to Zero	Increment
5	N/A	N/A	Decrement
6	N/A	N/A	Increment
5+1		Left Wing – Backward	
5+2		Left Wing – Forward	
6+1		Right Wing – Backward	
6+2		Right Wing – Forward	
7	Toggle between Assist and Manual	Toggle between Assist and Auto*	

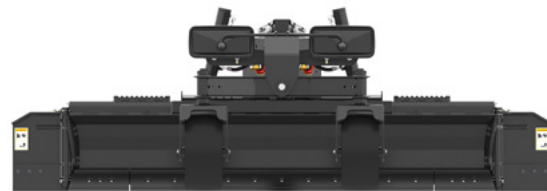
\*Auto requires addition of additional technology in conjunction with a grade control system such as Lasers, GNSS or Total Station.



ANGLE



Right Joystick – Back



Raise/Lower



Wing Function

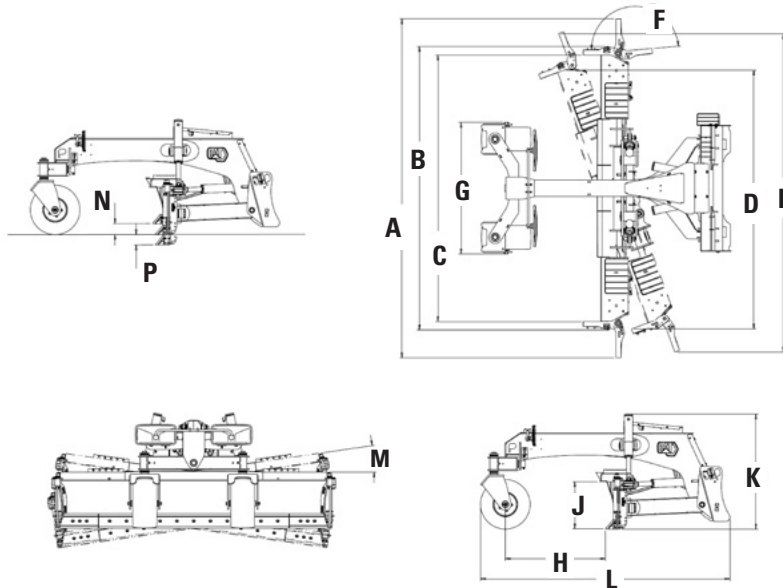
Standard Slope Sensor



Tilt/Cross Slope

# Cat® Smart Grader Blade

## Specifications



				<b>GB120</b>	<b>GB124</b>
<b>A</b>	Blade Width wings extended (wings optional)	mm	(in)	2604 (103)	3061 (121)
<b>B</b>	Blade Width (wings forward)	mm	(in)	2148 (85)	2605 (103)
<b>C</b>	Blade Width (without wings)	mm	(in)	1981 (78)	2438 (96)
<b>D</b>	Blade Width Fully Angled (without wings)	mm	(in)	1747 (69)	2143 (84)
<b>E</b>	Blade Width Fully Angled (wings extended)	mm	(in)	2292 (90)	2688 (106)
<b>F</b>	Wing Rotation	degrees		205°	205°
<b>G</b>	Front Stability Axle Width	mm	(in)	1196 (47)	1196 (47)
<b>H</b>	Cutting Edge to Axle Distance	mm	(in)	921 (36)	921 (36)
	Maximum Blade Angle – Right/Left of Center	degrees		30°	30°
<b>J</b>	Blade Height	mm	(in)	431 (17)	431 (17)
<b>K</b>	Overall Height (without masts)	mm	(in)	1046 (41)	1046 (41)
<b>L</b>	Overall Length	mm	(in)	2246 (88)	2246 (88)
<b>M</b>	Tilt Angle Range +/-	degrees		15°	15°
<b>N</b>	Maximum Cutting Edge Clearance	mm	(in)	152 (6)	152 (6)
<b>P</b>	Max Cut Depth	mm	(in)	102 (4)	102 (4)
	Weight (with wings)	kg	(lb)	1000 (2205)	1040 (2293)
	Optimal Hydraulic Flow	L/min	(gpm)	50-86 (13-23)	50-86 (13-23)
	Optimal Hydraulic Pressure	bar	(psi)	180-230 (2600-3340)	180-230 (2600-3340)

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

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(Global)

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