



Cat[®] Grade Technology For Excavators

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TOROMONT





CAT[®] GRADE

Grade with precision and speed.

Caterpillar equipment has always been at the cutting edge of technology, putting innovation, performance and safety behind all your operations.

Cat[®] Grade does it all. Precisely.

PRECISION

Fewer do-overs means you hit grading targets the first time.

SPEED

Reach grading objectives faster.

SAVINGS

Fewer passes means less fuel burned. Standard or as an option, Cat[®] Grade makes every operator more efficient, no matter their level of experience.



CAT[®] GRADE WITH 2D

03

Hit your depth and slope targets, start to finish, in fewer passes. Improve operator efficiency by up to 35%.*

CAT[®] GRADE WITH ADVANCED 2D

04

Adds cross-slope and mainfall guidance, helping improve precision across larger job sites and more complex applications.

CAT[®] GRADE WITH 3D

05

With real-time satellite positioning, maintain accuracy and coordinate multiple machines on large job sites.

CAT[®] GRADE WITH ASSIST

06

Up to 45% better productivity with semi-autonomous digging!



Cat® Grade with 2D

Improve operator efficiency by up to 35%.

With real-time vertical and horizontal guidance, Cat® Grade with 2D, standard on all new-generation Cat excavators, improves productivity by up to 35% in a number of different applications.

- Perform exact cut and fill work more quickly.
- Eliminates cluttering the work area with ground stakes.
- Displays target grade plus height and depth with visual guides.
- Enables single-lever digging by combining Cat® Grade with the Assist option.
- Easily adjust target depth and slope via joystick, touchscreen or jog dial.
- Integrated components are protected from damage, ensuring long life.

RECOMMENDED BY TOROMONT CAT FOR GENERAL APPLICATIONS:



DIGGING



GRADING



SLOPING



TRENCHING



WHAT CLIENTS ARE SAYING

“The effective technology on the Cat 325 simplifies life for the operator. It saves money and time by letting you dig just the right amount. And making adjustments with the onboard computer is easy.”

Darren King,
RF King Holdings LTD

“The technology is right at your fingertips. It’s really easy to activate it: You touch the button twice and there you go! Depending on the type of soil we are working on, we can easily use up to 80% 2D Cat® Grade and Cat Payload on our Cat 336 next gen.”

Jean-François Lampron,
Operator and Foreman,
Les Excavations Lampron



Cat[®] Grade with advanced 2D

Advanced guidance capabilities

In addition to having all the functionality of Cat[®] Grade with 2D, this optional Cat technology guides the operator in cross-slope and mainfall applications, helping maintain accuracy and precision on larger, more complex job sites.

- Improves productivity by up to 45% (using Cat[®] Grade with Assist option).
- Dig accurately with no over- or under-cutting or unnecessary passes.
- Allows greater machine versatility on the job site.
- Improved modelling: Displays a section on the high-resolution touch screen based on a known grade point with multiple viewing angles and real-time display of the bucket position.

RECOMMENDED BY TOROMONT CAT FOR SITE PADS, TRENCHING, GENERAL APPLICATIONS AND MORE.



DIGGING



TRENCHING



**COMMERCIAL
PROJECTS**



Cat® Grade 3D

Coordinate multiple machines on complex job sites.

Optional Cat® Grade 3D assists the operator in real time with the Cat satellite positioning system. With two GNSS (Global Navigational Satellite System) receivers, this Cat technology guides the machine using RTK (Real-Time Kinematic) positioning in three dimensions.

- Optimal accuracy on large job sites and multiple machines, with in-field design plan control
- Real-time tracking of machine and bucket location on the job site
- Automatic compensation for excavator pitch and roll caused by sloping ground conditions
- Compatible with Trimble, Topcon and Leica base stations



WHAT CLIENTS ARE SAYING

“The investment is so worth it because the productivity you get really stands out! At first the operators were hesitant, but once they sat down and really tried Cat® Grade with 3D and Cat® Grade 2D, they would never want to go back!”

Raymond Darche,
Administrator,
Excavations Darche Inc.

RECOMMENDED BY TOROMONT CAT FOR VERY LARGE AND COMPLEX JOBS



**COMMERCIAL
 PROJECTS**



**PRECISION
 PROJECTS**



Grade with Assist option

Up to 45% greater efficiency with semi-autonomous digging!

Fully compatible with other Cat® Grade technologies, Cat® Grade with Assist optimizes productivity using single-lever digging. This automates machine movements for precision cutting.

Four types of automated assistance:

- **Grade Assist** automates boom and bucket movements to ensure desired depth and slope by enabling one-handed control over stick speed.
- **Bucket assist** maintains bucket angle and cut accuracy in sloping, levelling, fine-grading and trenching applications.
- **Boom assist** automatically controls the boom to keep the excavator from lifting off the ground when digging, lifting or rotating under load.
- **Swing assist** automatically stops the excavator swing at defined points when loading trucks and trenching.





See how Grade makes all the difference with our study.

THE SET-UP:

Two Cat excavators on two identical job sites. One with Cat® Grade 2D, the other without.

THE MISSION:

Dig a partial basement, trench at a 10% grade to a second location, then dig a second basement.

THE GOAL:

Compare the time to grade and grading accuracy.

DURING THE TASK:

The machine without Cat® Grade had to stop a number of times to wait for the grade checker and was therefore idle for most of this time. Meanwhile, the machine with Cat® Grade continued working at full pace without stopping, re-benching as needed, with no grade checker required.

THE RESULTS

The machine equipped with CatGrade 2D completed the work in 1 hour 17 minutes, while the one without the technology took 1 hour 40 minutes!



**MINUTES
LESS!**



**PRODUCTIVITY
GAIN!**



**INCREASED JOB
SITE SAFETY**



**LESS FUEL
CONSUMED**



**FEWER EMPLOYEES
REQUIRED ON SITE**



Your needs are unique and we know it!

Contact your Toromont Cat representative to talk about your projects and the technologies best suited to your industry.

Don't forget to read our blog and listen to our Toromont Cat **Building Tomorrow** podcast for expert advice and to stay on top of trends in the construction industry!

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PODCAST

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