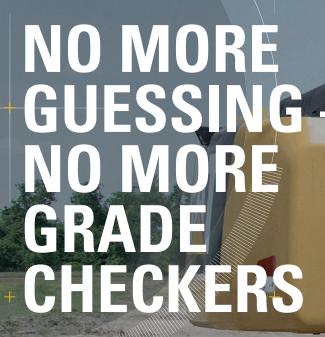
## CAT® GRADE for Hydraulic Excavators











UP TO 30% MORE GRADING WORK CAN BE DONE IN THE SAME AMOUNT OF TIME THANKS TO INCREASED ACCURACY

HIGHER PRODUCTIVITY



GRADE HELPS OPERATORS TO ACHIEVE A FINAL GRADE WITHIN 1.5-2.5 CM OF THE TARGET GRADE

INCREASED ACCURACY



GRADE ELIMINATES
THE NEED FOR GRADE
CHECKERS, KEEPING
THEM OUT OF HARM'S
WAY

IMPROVED SAFETY



UP TO 20% LOWER FUEL CONSUMPTION IS POSSIBLE BECAUSE FEWER PASSES ARE REQUIRED TO ACHIEVE GRADE

IMPROVED FUEL EFFICIENCY



IN-CAB GRADING GUIDANCE ELIMINATES GUESSWORK AND REDUCES MISTAKES THAT LEAD TO REWORK

LESS REWORK



ALL GRADE
FUNCTIONS ARE
LOCATED ON THE
JOYSTICKS, MAKING
IT USER-FRIENDLY
AND SIMPLE TO
OPERATE

EASY TO USE



CAT® GRADE is an integrated system that enables operators to achieve grade faster and more accurately by showing the height and angle of the bucket in relation to the target grade on an in-cab display.

Sound and visual alerts inform the operator when the bucket is on grade, helping to prevent overcutting and significantly reducing rework and fuel consumption.

Cat Grade is simple to use with all functions on the joystick and decreases the number of necessary operator inputs, lowering operator fatigue and strengthening productivity.

Cat Grade improves the accuracy and efficiency of both novice and experienced operators, and is available on most Caterpillar hydraulic excavators.

FAMILY	MODEL	AVAILABLE FROM FACTORY
F Series Small Excavators	313F	
	315F	
	316F	
	318F	•
F Series Medium Excavators	323F	
	325F	
	326F	•
	330F	
F Series Large Excavators		
	336F XE	•
	352F	
	352F XE	
	374F	•
	390F	

In addition to in-cab guidance, CAT GRADE with Assist recalls and automates the bucket position during grading activities such as sloping and trenching, further improving accuracy, efficiency and productivity.

When the cutting edge of the bucket gets close to the target grade, Cat Grade with Assist takes over, adjusting boom and bucket movements while the operator controls the stick speed. This significantly reduces manual inputs, errors, and fatigue - improving grading consistency for operators at all experience levels.

Cat Grade with Assist comes with grade protection features that keep the cutting edge of the bucket from penetrating below target grade, preventing overcutting, rework and additional fuel and labor costs.

The integrated safety function Ceiling & Floor Protect prevents the boom, stick and bucket from going above or below a preset height or depth. This increases safety when working under low ceilings, electric cables or above underground utilities.





ALL CAT GRADE BENEFITS ARE ALSO VALID FOR CAT GRADE WITH ASSIST

CAT GRADE



AUTOMATED
ADJUSTMENTS
COMPLETE THE
PRECISION WORK, THE
OPERATOR SIMPLY
CONTROLS THE SPEED

SEMI-AUTOMATIC



PREVENTS
THE CUTTING EDGE
FROM PENETRATING BELOW
GRADE, ELIMINATING THE
CHANCE OF OVERCUTTING
AND REWORK

GRADE PROTECT



UP TO 45% MORE GRADING WORK CAN BE DONE IN THE SAME AMOUNT OF TIME THANKS TO INCREASED ACCURACY AND AUTOMATION

HIGHER PRODUCTIVITY



GRADE WITH ASSIST HELPS ADVANCED OPERATORS TO MAINTAIN A HIGH OUTPUT LEVEL DURING ROUTINE WORK

SUPPORTS ADVANCED OPERATORS



GRADE WITH
ASSIST SUPPORTS
DEPTH AND SLOPE
APPLICATIONS AND
CAN BE UPGRADED
TO 20

FLEXIBLE AND SCALABLE



THE BUCKET AND BOOM AUTOMATICALLY STOP AT A PRESET HEIGHT OR DEPTH TO PREVENT HITTING OVERHEAD OR UNDERGROUND OBSTACLES

FLOOR & CEILING PROTECT



GRADE WITH
ASSIST HELPS
NOVICE OPERATORS,
BOOSTING THEIR INITIAL
PRODUCTIVITY

BOOSTS NOVICE OPERATORS



20 DIFFERENT
WORKTOOL
SETTINGS CAN BE
STORED FOR EASY
SWITCHING BETWEEN
WORKTOOLS

EASY WORKTOOL CONFIGURATION

## FENER OPERATOR INPUTS—INCREASED ACCURACY AND EFFICIENCY

FAMILY	MODEL	AVAILABILITY*
E Series HEX	323E	•
F Series HEX	323F	••
		retrofit kit     from factory

OPERATOR INPUTS
ARE SIGNIFICANTLY
REDUCED, LOWERING
THEIR FATIGUE AND
KEEPING OPERATORS
PRODUCTIVE LONGER

REDUCED OPERATOR FATIGUE CAT ACCUGRADE™ 3D adds geospatial positioning to the depth and slope guidance offered by Cat Grade, eliminating the need for surveyors and grade stakes.

Cat AccuGrade 3D is fully integrated into the excavator and uses GPS signals or a Total Station to show the operator the exact position of the bucket in relation to the grading design.

Offering maximum accuracy and control, Cat AccuGrade 3D is the ideal system for three-dimensional grading jobs with complex geometries.





GRADE HELPS OPERATORS TO ACHIEVE A FINAL GRADE WITHIN 1.5-2.5 CM OF THE TARGET GRADE

INCREASED ACCURACY



UP TO 40%
INCREASED
PRODUCTIVITY IN
MOST APPLICATIONS IS
POSSIBLE BECAUSE OF
INCREASED ACCURACY
AND AUTOMATION

INCREASED PRODUCTIVITY



ALL COMMANDS
NECESSARY TO OPERATE
CAT GRADE WITH
ACCUGRADE 3D ARE
AVAILABLE ON THE
JOYSTICK

EASY TO USE



ACCUGRADE 3D REPLACES GRADE STAKES AND SLOPE RAILS, CHECK POINTS ARE REQUIRED ONLY EVERY 200 M

NO GRADE STAKES



GRADE WITH 3D IS SIMPLE TO LEARN AND VERY SIMILAR TO 3D GRADING IN OTHER CAT EQUIPMENT

EASY TO LEARN



UP TO 80% FEWER
OPERATOR INPUTS
ARE REQUIRED,
SIGNIFICANTLY
REDUCING OPERATOR
FATIGUE

OPTIMIZED
OPERATOR CARE



UP TO 40% LOWER
FUEL CONSUMPTION
IS POSSIBLE BECAUSE
FEWER MANEUVRES ARE
REQUIRED TO ACHIEVE
GRADE

OPTIMIZED FUEL EFFICIENCY



GRADE WITH 3D IS COMPATIBLE WITH GPS POSITIONING (SATELLITE) AS WELL AS UTS POSITIONING (UNIVERSAL TOTAL STATION BY TRIMBLE)

GPS/UTS COMPATIBLE



SURVEYORS AND GRADE CHECKERS ARE NO LONGER REQUIRED AT THE JOB SITE, OPTIMIZING JOBSITE SAFETY

OPTIMIZED SAFETY



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