

# CHCNAV

# TG63

## 3D GRADE CONTROL FOR MOTOR GRADERS



## MACHINE CONTROL & CONSTRUCTION

# HIGH ACCURACY AUTOMATIC GRADER CONTROL SYSTEM

The CHCNAV TG63 automatic 3D grade control system for motor graders improves the quality and efficiency of grading operations. The high-precision dual-GNSS positioning system and inertial sensor featuring the GR-Tech technology provide reliable 3D positioning and heading to control the motor grader blade, regardless of the machine's position. Real-time automatic control of the blade to the design surface allows finished grade accuracy to be achieved in less time and increases efficiency and productivity by eliminating the need for manual staking.

The 10.1-inch industrial touch screen keeps the system operation at the operator's fingertips. The GradeNav software provides complete and user-friendly control to the machine operator. Detailed displays of job information, including project configuration, cut and fill data, and geofencing areas, are always accessible at a glance. For added safety, an optional rear camera is available to provide the operator with an even wider view of the job site.

The TG63 provides construction companies of any size with a complete, integrated solution for grading operations that allows the work to be done faster, delivering better results with overall data consistency and less rework.

## +/- 2 CM GRADING ACCURACY

### High-dynamic dual GNSS+INS positioning performances

The CHCNAV's GR-Tech technology combines dual-GNSS satellite positioning with inertial navigation to ensure ultimate accuracy in driving the grader blade to within  $\pm 2$  cm, regardless of the machine's position. The multi-band GNSS sensor supports multiple correction sources, including NTRIP RTK and UHF base station, to match your operating conditions.

The high-response valve module, with multiple pressure relief plugs, adjusts the blade position to maintain accurate grading. This ensures that the precision requirements of earthmoving operations are met at all times, and only the right quantity of material is moved.

## ROBUST DESIGN AND PROVEN RELIABILITY

### Extended durability in construction environments

The TG63's industrial design is built to withstand the harsh environment expected on construction sites. Dust and waterproof components, rugged anti-glare touchscreen, and durable, high-response valve module ensure fast, reliable work all year-round. The TG63 grade control system makes projects more productive and completed with fewer machines, bringing faster return on investment.

## SAFE OPERATION IN ALL SITUATIONS

### Full control always at hands

Because safety on the job site is critical, operators can quickly engage and disengage the automatic blade control mode by using the switches provided and mounted next to the outermost control handles in the cabin. The manual override mode allows operators to take control of the blade directly in the event of an emergency.

## FAST AND EASY-TO-USE SOFTWARE

### Intuitive GradeNav software for quick learning curve

The GradeNav software runs on a 10.1" industrial color display for optimal readability in job site environments. It supports standard AutoCAD DXF design files, including surfaces, slopes, TINs, and road features, to manage all common grading operations effectively. GradeNav's intuitive software enhances the machine operator's experience, even for those with less experience, in every way possible to complete projects quickly and accurately.

Several user-defined configurations can be set up to define the working parameters of the site and make the operator's job simpler and easier.



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## Display Console

- 10.1" color touch screen
- Sunlight readable
- IP66 dust- and waterproof
- CAN Bus + RS232
- GradeNav software
- GR-Tech technology



## GNSS Receiver

- Full GNSS constellations
- Centimeter RTK accuracy
- Dual GNSS antenna inputs
- Integrated 4G and UHF modems
- CAN Bus protocol
- Built-in valve control module



## GNSS Antenna

- IP68 & MIL-STD 810E
- Quick release mount



## INS Sensor

- Built-in inertial navigation system
- 100 Hz update rate
- IP68 rating



## Valve Module

- High dynamic response
- Pressure-compensated flow control
- Integrated pressure relief protection

## ABOUT CHC NAVIGATION

More than just robust GNSS technology, CHCNAV Machine Control and Construction solutions are designed to be high productivity tools to get your projects done faster. Priced affordably so that all contractors can benefit from GNSS machine control, our solutions are suitable for operators of compact and heavy equipment requiring accurate surface grading and excavation, as well as site preparation for construction, roads or parking lots.

CHCNAV provides solutions across the entire construction site, from GNSS bases and rovers with CAD surveying software to advanced GNSS machine control technologies.

Save time. Increase Precision.



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