

LASER CONTROL SYSTEM FOR LAND LEVELING MACHINES



LASER CONTROL SYSTEM FOR LAND LEVELER

The Laser Control System for Land Levelers is an affordable, flexible, total control system that provides accuracy at low costs. The machine's hydraulics can automatically raise, lower and seek the "on grade" position for the blade increasing thus the accuracy and getting the job done on time.

Working with this Laser Machine Control System saves time and materials, improves performance and increases efficiency.

Applied where level, single or dual grade is required.

4Wheels System

Specifications:

Semi Trailed Hitching Tow Hook with 3 point hitch assembly

Tractor Power 65-80 hp

Tires Nos. 04 Type Pneumatic

Bearings Nos. 04 Type Tapered roller with grease housing with internal seal size 60 - 100 - 10
provided near tow hook Soil Capacity 1.0 to 2.0 cubic meters (Rolling) Approx

Overall Dimensions

Overall Length 4350-4400 mm Approx

Overall Height 1750-2000 mm approximately depending upon length and model of rigid electric mast support pipe.

Overall width 2500-2570 mm Approx.

Weight. 900-1000 Kg Approx

LASER RECEIVER



The Laser Receiver is specially designed for agricultural applications where level, single or dual grade is required. This new design is built from top quality mechanical and electronic components using the most modern production methods. It can be easily mounted on every type of Land Leveler to provide precise grade information.

Used with the control unit the machine's hydraulics can automatically raise, lower and seek the 'on grade' position for the blade.

FEATURES

- 8 Levels photocells for a better accuracy
- Three selectable "on-grade" bands

- Constant reception accuracy regardless of operating distance, spot size and rotating laser type
- Laser beam rotating speed recognition
- CAN bus type communication with optional control panel
- Ultra bright indication with LED's easy to view even in brightest sunlight
- Excavator's dipper arm verticality indication for more accurate grade readings
- Smart battery consumption management for increased operating hours
- Internal rechargeable battery pack
- Double stable bracket mounting
- Waterproof and shock resistant
- Quick installation and easy mounting

SPECIFICATIONS

- Detection range: 360°
- Accuracy "on grade": ± 4 , ± 8 and ± 12 [mm]
- Operating range: 450 [m] radius
- Operating voltage: 10-30 [V] DC
- Dimensions: 245 (H) x 110 (D) [mm]
- Weight: 1,5 [kg]
- Operating temperature: -15 [°C] to +60 [°C]

CONTROL UNIT



CONTROL UNIT

The control unit used with the Laser Receiver and the electric mast works great on many machine control applications such as Motor Graders, Land Levelers, etc.

The control unit controls the machine's hydraulics automatically and can raise, lower and seek the "on grade" position for the blade. The operator has the opportunity to select manual or automatic hydraulic control, adjust the Laser Receiver height, make Laser set-ups, Elevation changes and Measure Height Differences and make fine adjustments. The screen provides the operator information such as Laser Beam Level, Hydraulics functioning, Laser Receiver Height, etc.

Using the Control Unit increases performance, offers savings in time and materials and gets the job done on time.

FEATURES

- Attachable to all hydraulic systems
- Remote control (option)
- Electronic controllable response speed of the hydraulics
- Manual or automatic control
- Digital indication of the laser receiver height (combination with electric mast)
- Laser beam level indication
- Hydraulic functioning indication
- Great staying power under frequent and tough use
- Shock resistant

SPECIFICATIONS

Operating voltage: 12 [V] DC

Accuracy indication laser receiver height (electric mast): 4 [mm]

Dimensions: 250 (L) x 140 (W) x 88 (H) [mm]

Operating temperature: -15 [°C] to +60 [°C]

Weight: 2,5 [kg]

ELECTRIC MAST



ELECTRIC MAST

The electric mast used with the Laser Receiver and the control unit allows the operator to adjust remote from the cabin the height of the Laser Receiver. The display of the control unit provides the operator information concerning the height of the Receiver making it thus possible to make Laser set-ups, Elevation changes and Measure Height Differences.

The electric mast works great on many machine applications such as Motor Graders, Land Levelers etc. Improves performance, accuracy, saves times and materials and makes the work of the operator easy.

FEATURES

- High quality materials
- Low weight
- Electronic brake for a better accuracy

SPECIFICATIONS

Max.cover: 600 [mm]

Operating voltage: 12 [V]

Height: \pm 130 [cm]

Weight: \pm 21 [kg]

LASER Transmitter



The Laser **Transmitter** works great on machine control applications such as Motor Graders, Land Levelers, etc. where level, single or dual grade is required. Used with the Laser Receiver and the Control Unit provides performance and accurate grading when level, single or dual grade is required.

FEATURES

- Rugged design
- Ease of set up
- Power save feature

SPECIFICATIONS

- Range radius/diameter: 400/800 [m]
- Accuracy: (5mm per 100m)
- Automatic leveling range: $\pm 18\%$
- Grade adjustment range X: - 10% to +12%
- Grade adjustment range Y: - 10% to +10%
- The grade adjustment can be reversed (\pm) manually or by remote control
- Optical axis rotation: $\pm 18\%$

- Electronic Manual or by remote control
- Rotational speed: 100-900 [r.p.m.]
- Diode: 670 [nm]
- Maximum output: 5 [mW]
- Beam diameter: 12 [mm]
- Optics and windows are AR coated
- Battery: 7.2 [V] NiCd Rechargeable 1.4 Ah
- Completely recharged in less than one hour
- Run time on recharged batteries: Approximately 30 hours
- Waterproof: Yes IP67
- Dimensions: 17 x18 x24 [cm]
- Weight: 5 kg

Note: Manufacturing of the complete system is subject to confirmation of order

Lead Time: 60 Working Days.