# TUBE•LINE

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# **Operator's Guide**

Keep this manual with the machine at all times.

Compatible with Balewrapper models:

TL50, TL60, TLR5000X2, TL5500AX2, TL6000AX2 & TL6500AX2

# Balewrapper Option: Laser Guidance System





WARNING: This option includes a Class 2 laser. Do not look directly into lense.

Rev. 1-2

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## **Operator's Guide**

Thank you for choosing the Tubeline Balewrapper Option: TLGS - Laser Guidance System. Our hope is that it will give you many years of productive service. This option is designed to allow your Balewrapper to follow a line, whether that be a row of tall crops or an existing row of bales.

Please read and understand this manual and the machine before operation.

#### Warranty and Limitation of Liability

All equipment is sold subject to mutual agreement that it is warranted by the company to be free from defects of materials and workmanship. But the company shall not be liable for special, indirect or consequential, damages of any kind under this contract or otherwise. The company's liability shall be limited exclusively to replacing or repairing without charge, at its factory or elsewhere, at its discretion.

Any material, or workmanship defects which become apparent within one year from the date on which the equipment was purchased, and the company shall have no liability for damages of any kind. The buyer by the acceptance of the equipment will assume all liability for any damages, which may result from the use or misuse by his employees or others.

Warranty coverage is null and void unless Warranty Registration form has been completely filled in and is on file at Tubeline Manufacturing Ltd.

#### **Serial Number**

The implement serial number is located on the front of the frame. This number helps us to track changes and improvements and must be mentioned when ordering parts or requesting service. For your convenience, a space has been provided inside the front cover of this manual to record the serial number, model number, purchase date, and dealer name.

Model No:		 
Serial No:		 
Date Purchase	d:	 

Dealer Name:

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## Installation

To install your TLGS - Laser Guidance System on a balewrapper follow these instructions:

1. Position screen in such a way that the 2 part, 6 wire harness can easily reach the control panel. It may be necessary to drill holes in the left door mount to allow mounting of the control screen. Fasten in place with 1/4" bolts and lock nuts.

2. Route the 2 part, 6 wire harness from the control screen, down the door mount and into the control panel.

3. Follow the wiring diagram on *page.VIII* to connect the 6 wire to their correct terminals within the control panel.

4. The communication cable must be routed down the door mount and hoop brace and along the balewrapper frame to the front steering cylinder. It must then be connected to the mounted laser sensor.

Note: It may be possible to route the communication cable along side existing wires.

5. The laser sensor and mount assembly must be mounted to the rod side of the front steering cylinder. The pin holding the front steering cylinder rod end in place will need to be removed to allow the laser sensor mount bracket to slide between the cylinder rod end and the sliding tube lug. Reinstall cylinder pin.

See picture to right and parts breakdown on *page*. *VI* for illustration.



Communication Cable



# Adjustment

To operate your Tubeline Balewrapper with the Laser Guidance System option installed follow these instrictions:

1. The mirrored face of the sensor must be pointing towards the row you want the wrapper to follow. The sensor can be repositioned as needed by pulling down on the sensor, then pivoting it in the correct position.

2. Release the sensor. The machine screw heads holding the sensor to its mounting plate should fit neatly into the pivot plate, item 2 on *page. VII*, to lock the necessary position in place.



## **Control Screen Functions**



**Screen Layout** 

Note: Directions are written as if you are driving a tractor in FRONT of the balewrapper.

#### Main Menu Screen

The default screen is **Main Menu**. From this screen you can select which side of the wrapper the laser sensor is pointed towards. Use the **PREV** arrow button or the **NEXT** arrow button to toggle between **Steer Left**, **Steer Right**, and **Count Bales**. Press **AUTO** -**ENT** to select desired option.

Note: At any time, press the **STOP - ESC** button to return to the Main Menu screen.

#### Laser L Screen

After choosing which side your laser sensor is pointing towards you will be taken to the Laser L screen. Use this screen to alter the current distance between rows. The top right corner value is the targeted distance from bale row (measured in inches) while the lower left value is the current distance from bale row(measured in inches).

Example: Noticing a root in the path of a started row, a farmer uses the Laser L screen and the NEXT arrow button to adjust the targeted distance between the existing bale row and current row from 90" to 96". This creates a slight bend in the row but allows it to skirt around the root. The farmer then uses the PREV arrow button to get the row back on the desired path.



#### **Control Screen Functions**

#### Main Menu : Count Bales

After selecting this option from the Main Menu Screen you will see the current Bale Count.

If you would like to reset bale count to zero simply hit the **NEXT** arrow button followed by the **AUTO - ENT** button, or the **STOP - ESC** button to cancel.



### **Parts List**



#### **Parts List**

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	31380	Guidance System Controller
2	1	27566	Spring Compression .97 OD x 2.0 Long
3	1	39367	Laser Pin Bracket
4	1	39372	Pivot Bracket
5	1	40846	Stiffener Plate
6	1	FW 1/2	Flatwasher - 1/2" Zinc Plated USS (1096)
7	1	FW 5/16	Flatwasher - 5/16" Zinc Plated USS (3840)
8	1	HB 5/16-18X1.1/4 Z5	Hex Bolt - 5/16"-18 x 1 1/4" Grade 5 Zinc Plated Hex Cap Screw
9	2	HB 8-32X32 Z5	Hex Bolt - #8-32 x 2 Zinc Finish Flat Socket Cap Screw
10	2	HN 8	Hex Nut #8-32 Zinc
11	1	HP .125 X 1.5	Hair Pin
12	1	LN 5/16	Center Locknuts
13	1	39387	Wrapper Guiding System Sensor
14	1	40521	Laser Guidance System Power Cable
15	4	HB 1/4-20X0.75 Z5	Hex Bolt 1/4-20x3/4 Grade 5 Zinc Plated Hex Cap Screw
16	4	LN 1/4 N	LN 1/4-20 Zinc Plated Nylon Insert Lock Nut



