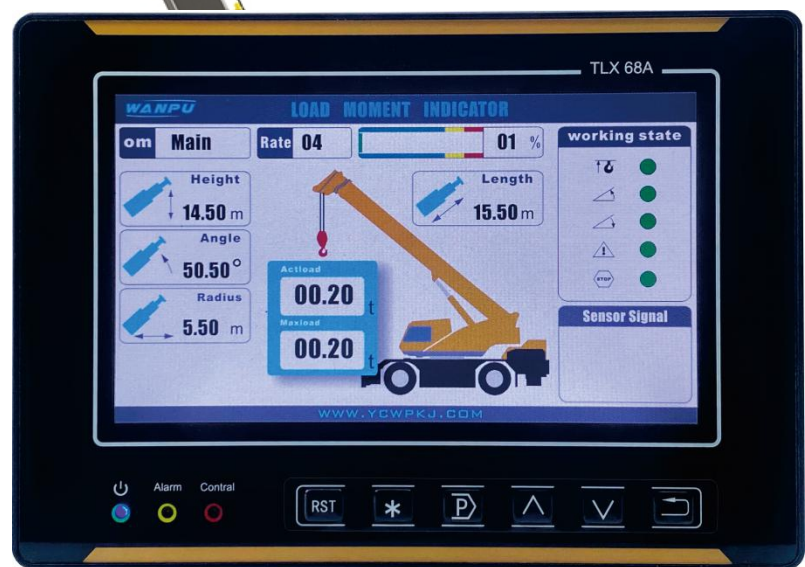


Mobile Crane Load Moment Indicator(LMI)



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ABOUT US

WANPU was founded in 2010. Specializing in the production of industrial control instrumentation systems, as well as providing solutions to ensure the safety and reliability of cranes.

WANPU has strong R&D capabilities, has 10 years of experience in the crane security, and can provide various cranes safety systems with different needs. The R&D team leads cutting-edge technology in the crane industry. WANPU fulfill the clients' demand with continuous innovation, reliable quality and excellent service.



USER MANUAL

We will provide an English Operation Manual for the guidance.



HIGH QUALITY PARTS

Suitable for working in a various complex environments.



TECHNICAL SERVICE

You can depend on high-quality service.



GUARANTEE

One year free repair for quality-warranty. *Ano-lifetime* free online after service.



OEM/ODM

Provide customized products.



PACKING

Standard export packaging, including instruction and certification.

LOAD MOMENT INDICATOR – LMI

RATED CAPACITY INDICATOR – RCI

LOAD INDICATOR – LI

MOBILE CRANE&ROUGH TERRAIN CRANE&TELESCOPIC CRANE

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Wechat



WhatsApp



Website

1 GENERAL INFORMATION

Each crane is under a load chart that, in short, specifies the crane's capabilities — detailing its features and how its lift capacity varies when considering distance and angle.

LMI Using different sensing devices, the Load Moment Indicator monitors various crane functions and provides the operator with a continuous reading of the crane's capacity. The readings continuously change as the crane moves through the motions needed to make the lift. LMI controls the lifting equipment to function as per the manufacturer's suggested safe load charts. Each of the measured parameters such as load charts, working radius, angle and extension of the crane boom, etc will then further be displayed in the operator's cabin.

2 SYSTEM DESCRIPTION

The WANPU Load Moment Indicator consists of a central microprocessor unit, display, pressure transducers, length/angle sensor, and anti-two block switches

The fixed data regarding the crane, such as capacity charts, boom weights, centers of gravity and dimensions are stored in memory chips in the central processor unit. This data is the reference information used to calculate the operating conditions.

Boom length and boom angle are registered by the length/angle sensor, mounted inside the cable reel which is mounted on the boom.

The boom length is measured by the cable reel cable which also serves as an electrical conductor for the anti two-block switches.

The crane load is measured by pressure transducers attached to the piston and rod side of the hoist cylinders.

The real value, resulting from the pressure measurement is compared with the reference data, stored in the central processor memory and evaluated in the microprocessor. When limits are reached, an overload warning signal is generated at the operator's console.

3 COMPONENTS OF THE LMI SYSTEM



- 1 Display
- 2 Central Micro Processor Unit
- 3 Length/Angle Sensor
- 4 Pressure Transducers
- 5 Anti Two-Block Switch
- 6 Warning Light

3.1 DISPLAY

Industrial Grade 7 inch Lcd screens with sunlight visible function, and the brightness of the display can be adjusted by operator, screen visible during all-weather operation.



PERFORMANCE PARAMETER

Working voltage	Dc24v	Display	7 inch lcd
Working temperature	-20°~+70°	Ip grade	Ip67
Operating humidity	95%rh(25°c)	Powerconsumption	<30w

3.2 CENTRAL MICRO PROCESSOR UNIT

Core processing unit of LMI. Industrial-grade new-generation enhanced micro-processing chip, faster than the same processor. Strong anti-interference ability and high efficiency. High strength chassis, good sealing, protection grade IP65, suitable for working in a variety of complex environments.



PERFORMANCE PARAMETER

Working voltage	Dc24v	Ip grade	Ip67
Working temperature	-20°~+70°	Powerconsumption	<30w
Operating humidity	95%rh(25°c)	communication interface	RS232, RS485 and Can bus
storage temperature	-20° ~+80°	Relay contact capacity	5A AC24V

-High-performance, low-power Microcontroller



MICROCONTROLLER



**ALUMINUM CONTROL
BOX**

-Die-casting Al enclosure;
-Using sealing strip, good sealing performance,
waterproof, dust proof and anti-corrosion,
protection rank up to IP67;



CABLE CONNECTOR

-The shell is made of anodized aluminium,
compressive, anti-explosive and
anti-deformation properties.

3.3 LENGTH/ANGLE SENSOR

The length/angle sensor is installed on the boom of the crane, assisting the instrument control and display the length of the crane arm, lifting the arm relative to the horizontal

MODEL	ANGLE MEASURING RANGE	LENGTH MEASUREMENT RANGE	LENGTH NONLINEARITY	ANGLE NONLINEARITY
WLA15	15m	-10°~+90°	≤0.2%	≤0.15°
WLA25	25m	-10°~+90°	≤0.2%	≤0.15°
WLA45	35m	-10°~+90°	≤0.2%	≤0.15°

plane angle, and the control of the crane hoisting height, etc.



WLA- LENGTH/ANGLE SENSOR

3.4 PRESSURE TRANSDUCERS

For hydraulic cranes, the LMI reads its load value using a pair of pressure transducers, which read the cylinder pressure of the lift cylinders.



PERFORMANCE PARAMETER

Power supply	9-32VDC		
Output signal	4~20mA, 0~10VDC, 0~5VDC	Ip grade	Ip67
Process connection	G1/4	Accuracy	0.5%FS
Materials:	Stainless steel 304	Long-term stability	0.25%FS/year

3.5 ANTI TWO-BLOCK SWITCH

Limit switch is used for lifting wire rope anti-volume limit an automatic electrical protection switch. It is an appropriate weight of the hammer supporting the use of hook up and down movement to hold up or disconnect or turn-on switch, put down the hammer to achieve the purpose of automatically cut off the hoist power supply connected braking system to limit rope over volume, and reach hook in the purpose of a certain height within the lift.



3.6 WARNING LIGHT

Three-color alarm suitable for larger machines. Increased visibility at great distances with a modular design. Three-color alarm series offers the latest in LED technology. Versatile and energy-efficient.

- 1.Application:Industrial safety equipment,maintenance of machine status
- 2.Making from noncombustible ABS,acidproof and dust proof
- 3.IP Rating:IP54
- 4.Different light source is available and adjustable,led
- 5.Integral alarm with adjustable volume up to 90db.



4 INSTALLATION AND COMMISSIONING

1 We will provide detailed English manual for your operation guidance easy to mount and operate.

2 The system installation is simple and convenient,customers can easily and quickly complete the installation and commissioning.

3 We can send technicians to the designated site for installation and commissioning.

5 SERVICE AND MAINTENANCE

One year frees repair for quality-warranty. Ano-lifetime free online after service.You can contact us for a detailed user manual.

6 CONTACT US

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