

LERO_{.cn}

Product Overview



LERO Intelligent Technology Co., Ltd

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Company Profile



LERO was established in July 2007. It is one of the leading manufacturers of turbine flow meters and hydraulic test analyzers used on mobile and industrial machinery. High-quality, low-cost, LERO offers a distinctive advantage over the competition.

QUALITY MANAGEMENT: From the outset, it is our constant intention to operate in an optimised way and to exceed the expectations of our customers. To meet all demands, we are certified according to ISO 9001 : 2015 and practice this standard throughout the whole company.

INNOVATION: LERO insists on innovation. It is our aim to design, develop and build new and innovative products to satisfy the requirements of our customers. This motivation, together with intensive customer service makes LERO a pioneer in hydraulic technology.

Innovation, Measure, Reliability

1. Hydraulic Test Systems



LERO HYDRAULIC TEST SYSTEM is ideal for use as an in-house or portable display and data logging instrument. Powered by a rechargeable battery, this easy to use diagnostic test system is a valuable tool for preventive maintenance, verifying component settings, pin-pointing poor system performance , measuring differential pressure and capturing harmful pressure spikes.

Complete range of sensors : pressure, flow, temperature, force,RPM etc.

LERO data logging including :

STONEBook 8050 Serial;

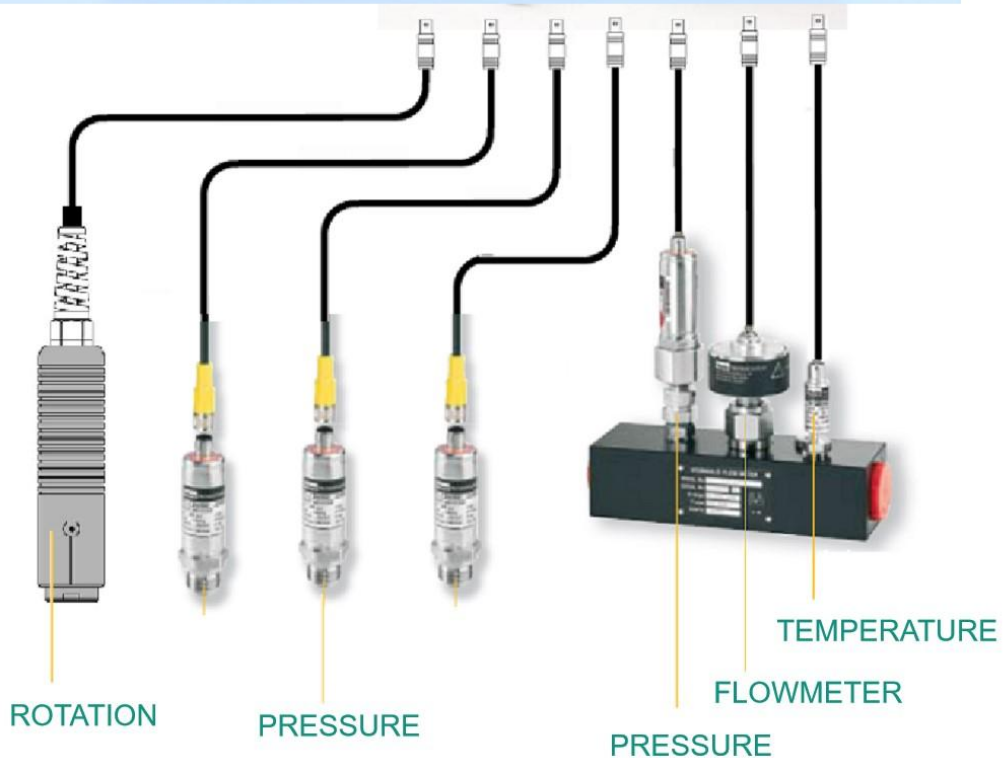
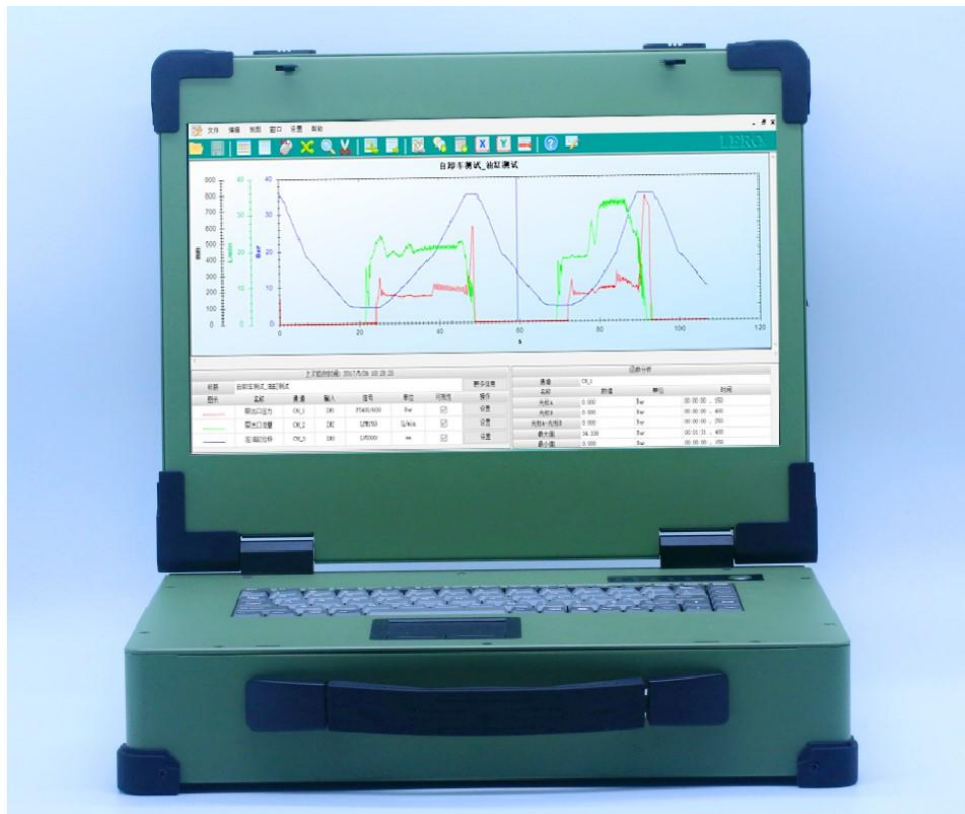
CHPM Serial.

The lero-HTDAD software offers additional methods for analysis,and remote maintenance using USB connection.。

Innovation, Measure, Reliability

1.1 Constitue of the Test System

LERO TEST STSTEM is the ideal tool for hydraulic system diagnostics, and analysis of the performance of a hydraulic system. Constitue of the test system is as follow: Dataloggers, Sensors, Software...



1.2 Test Schematic



1.3 DATALOGGER: 8050 Serial



TYPE:	STONEBook 8050
OS:	Windows
Signals:	Analog: 0/4...20mA , 0...5 V, 0...10 V Frequency: 0.25Hz ... 20kHz
Interface:	USB 3.0, RS232, J1939/CANopen
Channels:	8, 16, 24, 32 Channels
Sampling Frequency:	10 Ks/s each channel
Display:	12" Touch Screen
Memory:	SSD 1T
Features:	1 Sensors self -recognized without calibration , plug and play;
	2 Sensors: Flow, Pressure, Temperature, Force, Rotation, Displacement, Angle etc;
	3 Embedded rechargeable Li-battery, Keep using for 180 min;
	4 Friendly user interface, Digital or Curve show measurement data.

1.4 DATALOGGER: CHPM Serial



TYPE:	CHPM440 / CHPM480
OS:	Windows
Signals:	Analog: 0/4...20mA , 0...5 V, 0...10 V Frequency: 0.25Hz ... 20kHz
Interface:	USB 3.0
Channels:	4, 8 Channels
Sampling Frequency:	10 Ks/s each channel
Display:	LCD
Memory:	TF Card: 4G
Features:	1 Sensors self -recognized without calibration , plug and play;
	2 Sensors: Flow, Pressure, Temperature, Force, Rotation, Displacement, Angle etc;
	3 Embedded rechargeable Li-battery, Keep using for 180 min;
	4 Friendly user interface.

1.5 PORTABLE TESTER: CDHM Serial



Flow, Pressure, and Temperature

- Up to 800 lpm
- Up to 420 bar
- Bi-directional

The LERO CDHM serial Hydraulic Tester can be used as a stationary or portable tester for hydraulic system diagnostics, and analysis of the prognostic health of a hydraulic system. It features flow, pressure, and temperature sensors that are monitored by a data acquisition module.

The Hydraulic System Analyzer is powered through the WIFI, making it easy to setup and ideal for portable applications. Interfaced to the MOBILE PHONE application, the Hydraulic Analyzer offers a straightforward method of monitoring system parameters complete with data acquisition.

The turbine flow meter with built-in loading valve is bi-directional and specifically designed to enable the operator to simulate the maximum working pressure safely during normal machine operation.

MODEL	Flow Range	Temperature	Pressure	Port Size	REMARK
	L/min	°C	bar		
CDHM401	10-400 L/min	0-120 °C	0-420 bar	1"BSPP	
CDHM411	10-400 L/min	0-120 °C	0-420 bar	1"BSPP	With Loading Valve
CDHM801	20-800 L/min	0-120 °C	0-420 bar	1-7/8" 12UN	
CDHM811	20-800 L/min	0-120 °C	0-420 bar	1-7/8" 12UN	With Loading Valve

FLOW MEASUREMENT:

Measured flow of the fluid by the electronic count of an axial turbine designed to minimise pressure drop and the effects of viscosity.

Displays flow in LPM.

Accuracy: 0.5%

TEMPERATURE:

Measured temperature of the fluid by a thermistor built into the flow transducer and ensure fast response. Displays temperature in °C.

Accuracy: ± 1 °C

PRESSURE:

Measured using a built-in pressure transducer rated to 600 bar. Displays pressure in bar.

Accuracy: 0.5%

POWER:

Calculated power from the flow and pressure, Displaye power in KW.

Accuracy: ± 3 kW (<100 kW), ± 5 kW (> 100 kW)

LOADING VALVE:

The integral loading valve allows pressure loading in bi-directional flow .

SEALS:

Viton seals compatible with oil, water/oil emulsion are fitted as standard. EP seals for phosphate-ester are available to special order.

DIMENSION:

CDHM4: 240mm Wide, 205mm Deep, 180mm High, Mass 8kg.

CDHM8: 240mm Wide, 205mm Deep, 190mm High, Mass 12kg.

OPERATORS MANUAL:

Full instructions are supplied with each tester

2. Sensors



LERO Sensors Including :

- ◆ Gear Flow Meter: ALB Serial;
- ◆ Turbine Flow Meter: CT Serial;
- ◆ Pressure Sensor: PTT Serial;
- ◆ Temperature Sensor: TTP Serial;
- ◆ Rotation Sensor: RPM Serial;

Innovation, Measure, Reliability

2.1 Gear Flow Meter: ALB Serial



In Gear Flow Meters, enclosed, medium-filled cavities are created between the teeth and the housing. The flowing measured medium causes the gear pair to rotate freely and without braking.

The speed of the gears is proportional to the flow rate and is picked up by transducers through the housing wall without contact.

- Flow Range: up to 300 L/min
- Accuracy: 0.3%
- Pressure: 420 bar
- Measuring Principle: displacement
- Medium Temperature: $-20 \dots +120 \text{ }^{\circ} \text{C}$
- Environmental Temperature: max. $+80 \text{ }^{\circ} \text{C}$
- Output Signal: frequency (rectangle) / 4 ... 20 mA / 0-5VDC
- Supply Voltage U_b : 12 ... 24 VDC

2.2 Turbine Flow Meter: CT Serial



The CT turbine flowmeter provides a complete solution to the flow measurement of hydraulic systems. The flow meter can be widely used in the hydraulic system for development testing, diagnostic, and analysis of hydraulic control systems.

The CT flowmeter is the ideal tool for monitoring the performance of the hydraulic system.

- Flow: upto 800 L/min
- Pressure: 420 bar
- Output: frequency (rectangle) / 4 ... 20 mA / 0-5VDC
- Accuracy: 0.5%
- Ambient: 5° C~ 50 ° C

2.3 Pressure Sensors: PTT Serial



A pressure sensor (or pressure transmitter) converts the physical quantity 'pressure' into an industry-standard signal. In addition to a wide range of pressure sensors for general industrial applications, we offer special versions for mobile machines, medical gases and also the semiconductor industry. Our pressure sensor portfolio covers accuracies from 0.1 %, measuring ranges from 0.05 bar up to 25,00 bar, and also various international approvals, including for hazardous areas.

Pressure Range: from 0.05 bar up to 25,00 bar

Accuracy: $\pm 0.1\%$

Output: 4-20 mA, 0-5V

Supply: 12-24V

2.4 Temperature Sensors: TTP Serial



Temperature transmitters convert the input signal from a wide range of sensors, such as resistance sensors and thermocouples, but in some cases also from potentiometers, into a standardised output signal (e.g. 0 ... 5 V or 4 ... 20 mA). With digital temperature transmitters, the sensor type and the measuring span can be freely configured, along with many further options such as the error signalisation or a measuring location identification.

Temperature Range: -25 to +125 °C

Accuracy: $\pm 1.5\%$

Output: 4-20 mA, 0-5V

Supply: 12-24V

2.5 Rotation Sensors: RPM Serial



Two measurement methods are available Rotational speed photo-tachometer and optional cone point , or a wheel for linear speed .

Measuring distance:25...500 mm

Type of sensor : Optical, red LED

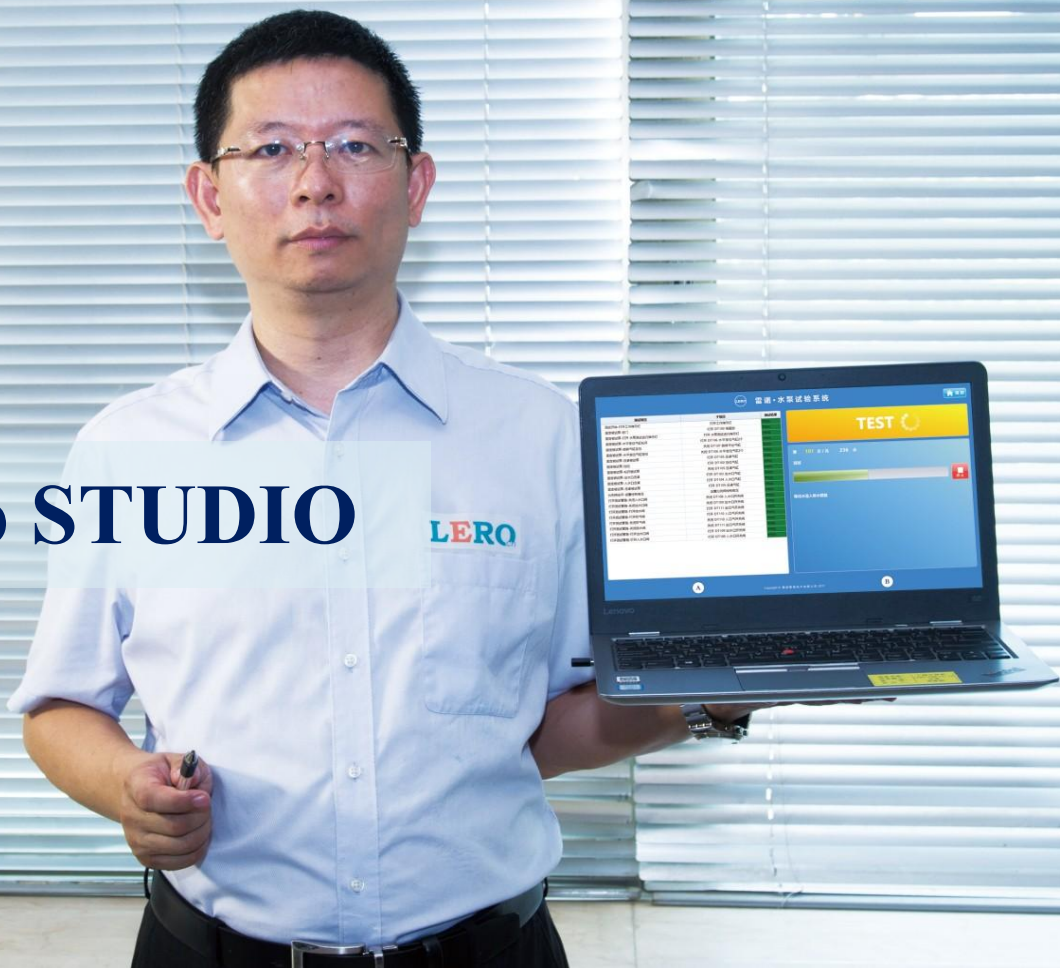
Measuring range:20...10,000 rpm

Accuracy: < 0.5% of FS

Resolution: ± 5 RPM

Material:ABSWeight:300 g.

3. lero STUDIO



**Integrated Software for the Entire
Testing Process.**

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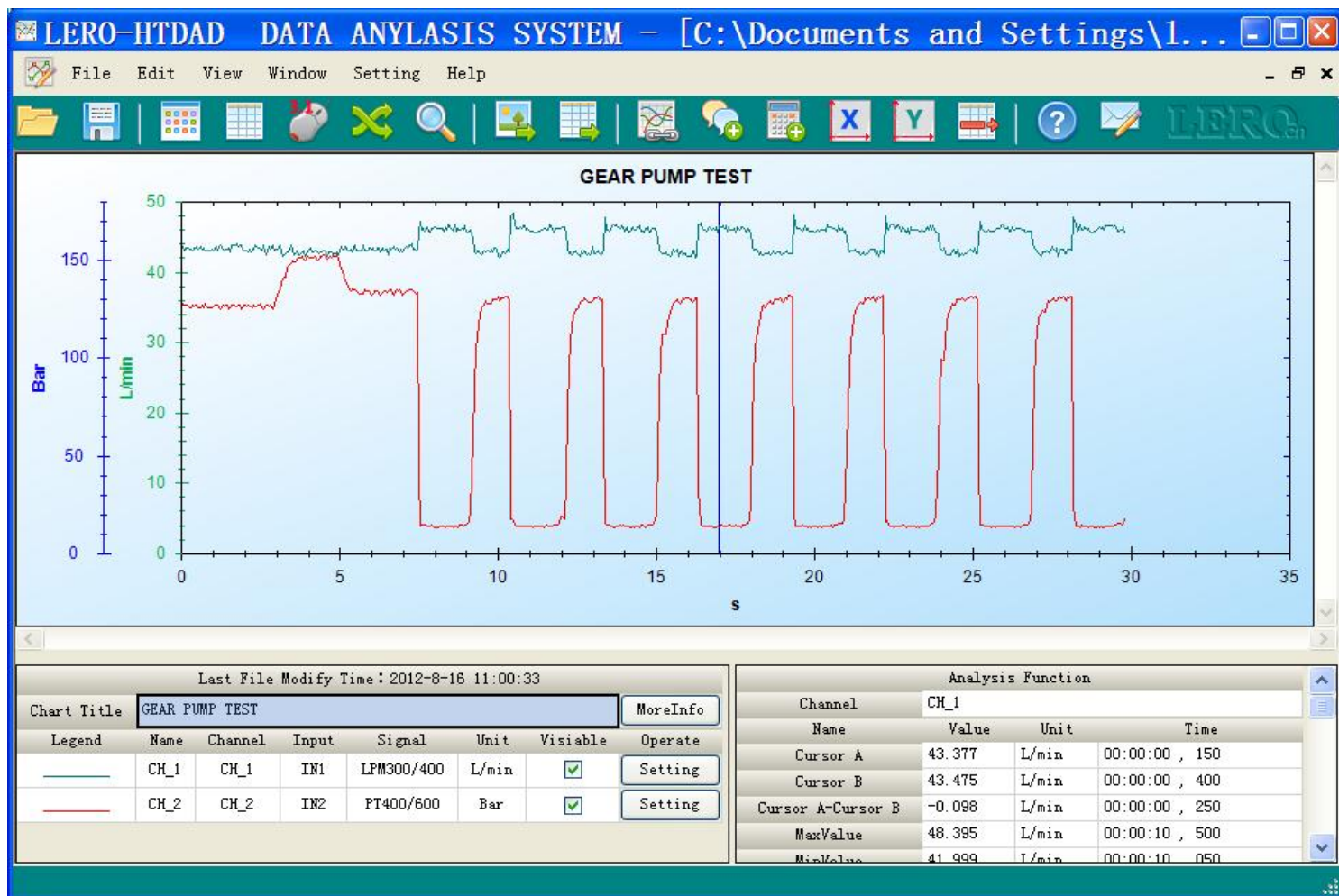
3.1 Testing Software



The intuitive software for the entire test & measurement process from data acquisition and live-monitoring to test stand automation.

- ◆ Hardware configuration and administration
- ◆ Graphical user interface design
- ◆ Setup control
- ◆ Complete real-time test automation
- ◆ Project management
- ◆ Multi-monitoring
- ◆ Integration of real-time simulation
- ◆ Synchronized capture of video and measurement data

3.2 Data Analysis Software



Test results can easily be transferred to PC for further analysis. Data could be shared with colleagues or printed out. Graphs can be overlaid upon each other for easy comparison. On-screen tools, such as zoom or dual cursors make measuring time-periods very easy.

4. Case Studies



**We Are Proud to Serve Customers In
a Wide Variety of Areas. Such as:
Industrial, Mobile, Agricultural.**

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4.1 On-line Testing of Rotary Drilling Rigs



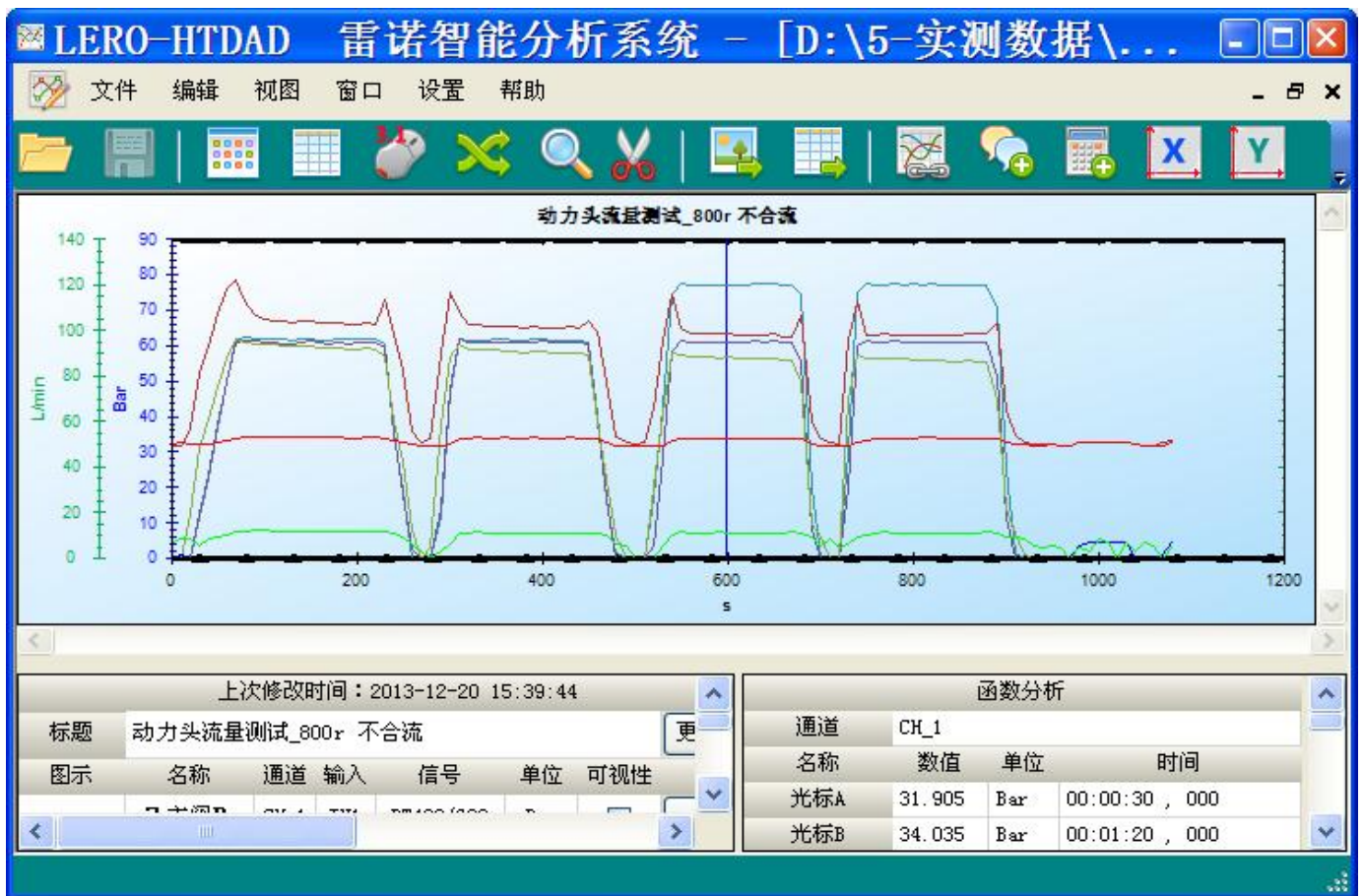
XCMG is the 3rd largest construction machinery company in the world.

Rotary drilling rigs become far more efficient and geared in road construction.

They come ready with hydraulic circuitry to control a wide range of rotating, vibrating or sorting attachments, and the pumps are more efficient. The demand for flow from the drilling rig to the attachment has increased, so now there is a need to test not only the flow, but also the pressure of the cylinder, the back pressure of the circle, the rotation of the drilling etc.

The Stonebook 8050 tester enables XCMG to do this easily.

4.1 On-line Testing of Rotary Drilling Rigs



lero STUDIO: Total Testing Solution for Construction Machinery.

- Integrated construction machinery hydraulic test platform, flexible scalability;
- LERO test data analysis software is designed for the test characteristics of construction machinery, and has the best usability and practicability.
- From parameter testing to fault diagnosis, it provides perfect solutions.



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