



Model 6310/DA

Diesel Engine Analyzer

Key Features at a Glance

- 2-channel Data Acquisition plus Encoder Channel
- View Pressure, Vibration or Ultrasonic vs. Crank Angle in any Dual Combination
- Stores Machine Setup and Historical Data for 200 Stations and for 200 Machines at Each Station
- High Resolution Color Screen
- Lightweight (6.75 lbs)
- Compact (10.5" x 8.5" x 2" deep)
- Easy-to-use Menu-driven Interface
- Upgradeable Design

What's New

- Double "Enter" Keypad for Fast Data Collection and Ease of Use
- USB Communications Cable (analyzer to PC)
- Optional 900 MHz Wireless Encoder Transmitter
- Optional 2-channel Spectrum/FFT Capabilities
- Partial Armor Sleeve on Vibration and Pressure Cables for Added Durability

6310/DA

The Model 6310/DA Diesel Analyzer is specifically designed for the operators, mechanics, and engineers of diesel engines. Easy, one-person set up and operation makes this lightweight, rugged analyzer an efficient and effective instrument to detect and isolate engine problems. Any dual combination of dynamic cylinder pressure, vibration, or ultrasonic vs. crank angle may be viewed simultaneously. The 6310/DA, the only two-channel diesel engine analyzer on the market, is a cost-effective tool to improve engine performance, mechanical condition, reliability, and safety.

All 6310 models weigh only 6.75 pounds and are compact for ease of use. The analyzer contains a Pentium grade processor, FIFO memory, and has large mass data storage. This allows permanent storage capacity and data recall for up to 200 stations and 200 machines per station. Packaged in an EMI-hardened anodized aluminum enclosure, the 6310 is rugged enough to withstand conditions encountered by analysts every day. A convenient field-replaceable lithium ion battery saves time on the site. It's hard to believe the 6310 can pack all this power and yet measure only 8.5" high x 10.5" wide x 2" deep.

Engine Diagnostics

- Cylinder-to-cylinder peak firing Pressure imbalance
- Defective fuel pumps and injectors
- Leaking power valves and rings
- Defective valve train components
- Worn or scorn liners
- Exhaust/Intake port or bridge wear
- Damaged connecting rods and wrist pins
- Damaged bearings
- Defective turbochargers
- Water and oil pump problems
- Low horsepower/kilowatt output
- Poor fuel consumption factors
- Excessive exhaust emissions factors



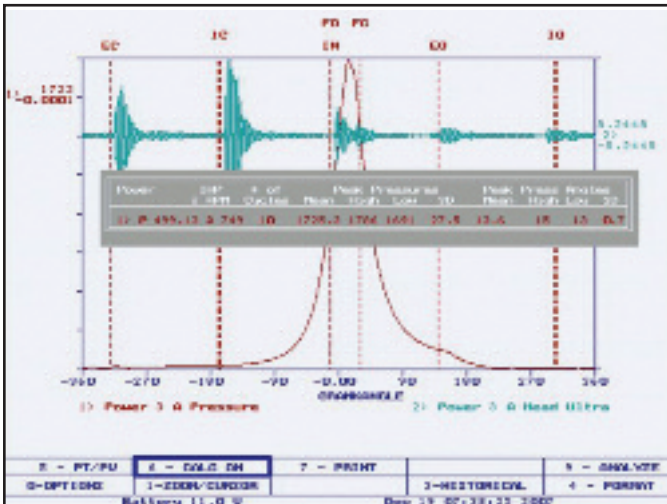
Windrock's 6310/DA Diesel Analyzer



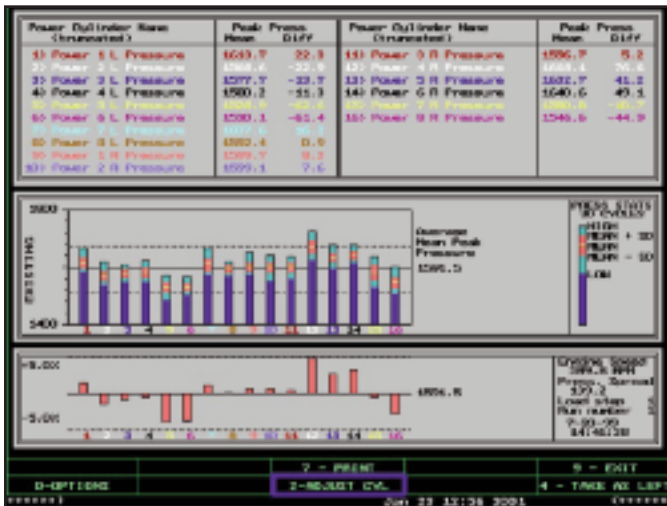
Light-weight, easy, one-man operation for on-machine diagnostics

Features

- 2 Input Channels (plus trigger)
- Peak Pressure Statistics and Balance Functions
- “As found” and “As left” Balance Reports
- Peak Pressure Angle Statistics
- RPM Display/Readout
- Pressure vs. Crank Angle and Volume Plots
- Engine Performance Report (IHP/IKW/IMEP)
- Vibration and Ultrasonic vs. Crank Angle Plots
- Optional 2-channel FFT/Spectrum Vibration Capabilities
- Optional Wireless Encoder Link
- Optional Water-cooled Pressure Sensor Kit, Includes 45 Degree Valve Extension and Partially Armored Pressure Cable



Cylinder Pressure and Ultrasonic vs. Crankangle



Peak Firing Pressure Balance Report



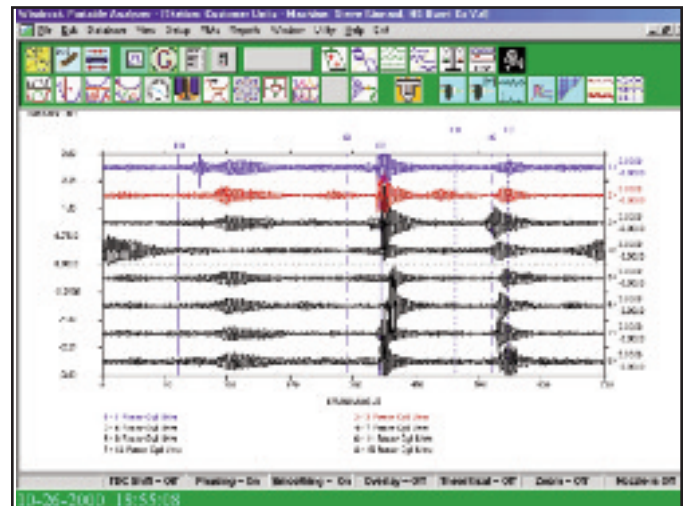
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Upgradeable Design

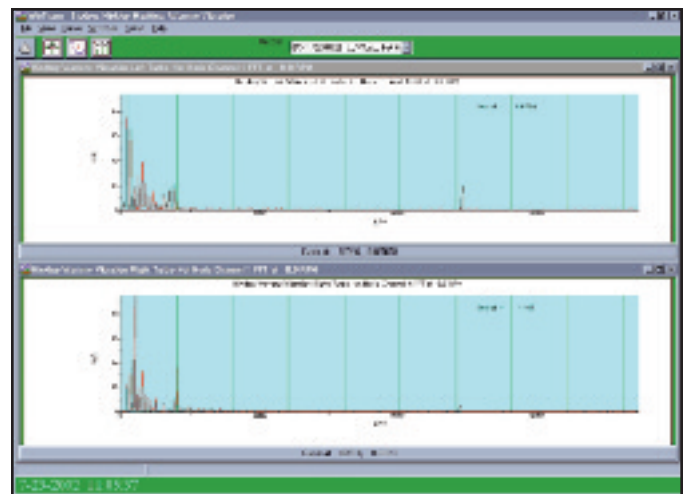
Should your predictive maintenance program requirements change, the 6310/DA uses a design criteria that permits the ability to upgrade your equipment to the next level by adding spectrum/FFT capabilities (6310/DA/VA) or the 6310/PA Performance Analyzer at a fraction of the cost of purchasing new equipment.

Standard Equipment

- Portable diesel analyzer with protective leather case and shoulder strap
- Dual bay battery charger and lithium ion batteries (2)
- Pressure, vibration and ultrasonic sensors
- Partially armored vibration and pressure cables
- USB communications cable
- Keyboard
- Hard transport case with wheels



Cylinder ultrasonic patterns indicates # 7 cylinder has a burnt exhaust valve



Turbocharger FFT vibration with optional 2-channel FFT/Spectrum vibration feature