

NVH MEASUREMENT EQUIPMENT



READY TO GO NVH MEASUREMENT KITS

AMC MECANOCAUCHO® analyzing and manufacturing since 1969 anti vibration solutions presents the Ready to Go NVH Measurements kits . Not only making data acquisition process easier, but helping better understanding vibration and noise applications.

Measure → Transfer files → Analysis & Auto-report

MEASURE:

Acquire real time NVH signals and check them in situ while measuring. Nor licenses nor year maintenance required.

TRANSFER FILES:

Transfer acquired data to AMC servers so all data is stored and secured. No risk of losing data. Already transferred data would be available.

ANALYSIS & AUTO-REPORT:

Transferred data will be analyzed and post processed. Results will be available to download in a detailed and comprehensive auto-report.



HARDWARE:

- All in one multichannel data logging systems
- Autonomously working portable equipment
- All required sensors are included, so no need to take care of sensor compatibility
- Scalable systems, any measurement kit can be upgraded to increase the number of acquisition channels.

FREWARE:

- Sensors configuration, signal treatment and signal processing is preconfigured
- Accelerometers, Displacement laser transducers, Microphones, Tachometers, GPS sensor, Cameras, ...
- Remote control via remote desktop (only for Pro version)
- Menu driven user friendly programs
- FFT spectrum analysis
- Real moment noise, vibration and displacement monitorization and recording
- Run-up vibration and noise analysis
- Multiple diagnostic tools
- It can be preconfigured to use previously purchased sensors

* In order to adapt its products to the state of the art, AMC, S.A. reserves the right to modify the conception and manufacture of the materials presented in this catalogue without prior notice.

FREWARE TO SUIT YOUR APPLICATION

Understand better what is happening in your machine. Making noise and vibration analysis easier and faster. Menu driven environment to record and analyze NVH levels.

Check how well are performing your antivibration mountings. Make fast run-up analysis. Real time dynamic applications analysis. New releases that upgrade the functionality of the equipment are periodically published for free. According to your need the software can be customizable.

AMC-MECANOCAUCHO NVH ANALYZER FFT:

- Store static vibration levels and spectrums of up to 8 points in the 3 axes (X,Y and Z) per file
- Fast and simple check of isolation level of anti vibration mountings
- Measure the vibration level of engines, cabins, transmissions, compressors, ...
- Identify the main excitation frequency as well as the RMS amplitude
- Take pictures of the measured points and machine (not available for the compact kit)
- Save all details as the location of the measurement (not available for the compact kit)



AMC-MECANOCAUCHO NVH ANALYZER RUN-UP:

- Record vibration level while the machine is accelerating or decelerating
- Check isolation level while running-up/down of antivibration mountings
- Measure the vibration level of engines, cabins, transmissions, ... while running-up/down
- Take pictures of the measured points and machine (not available for the compact kit)
- Save all details as the location of the measurement (not available for the compact kit)
- Noise can also be recorded (only for pro version)



AMC-MECANOCAUCHO NVH ANALYZER RIDE:

- Record vibration level while the machine is moving, working or in any dynamic scenario
- Check dynamic isolation level of antivibration mountings
- Measure dynamic acceleration level of engines, cabins, transmissions, ... while running-up/down
- Record real dynamic displacement of any point/object (antivibration mounts, fan, radiator, transmission, engine, ...)
- Store maximum displacement values and make histograms
- Take pictures of the measured points and machine (not available for the compact kit)
- Save all details as the location of the measurement (not available for the compact kit)
- Noise can also be recorded (only for pro version)



AMC-MECANOCAUCHO NVH ANALYZER MODAL:

- Record noise level while the machine is moving, working or in any dynamic scenario
- Make octave band and sound level analysis
- Store maximum noise levels and make histograms
- Take pictures of the measured points and machine (not available for the compact kit)
- Save all details as the location of the measurement (not available for the compact kit)



ONE MODEL FOR EVERY NEED



PRO KIT



ADVANCED KIT



COMPACT KIT

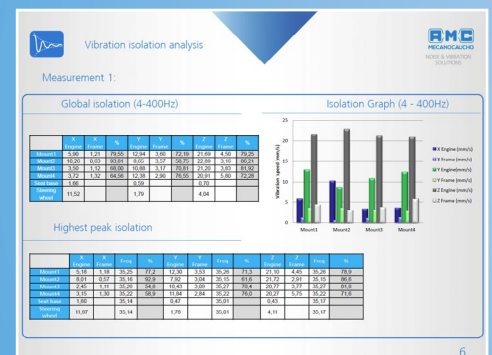
ASSISTANCE

New releases that upgrade the functionality of the equipment are periodically published for free.

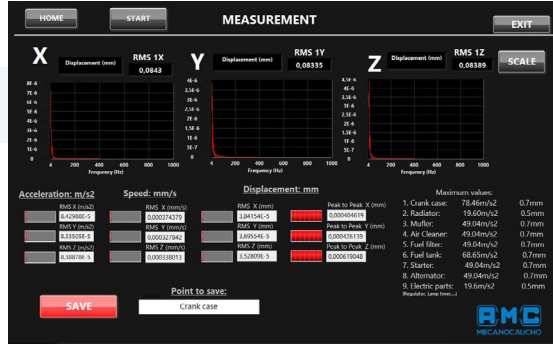
According to your need the software can be customizable.

No licence or year maintenance required.

Automatic report easily done through AMC-MECANOCAUCHO website.



WEB AUTO REPORT PROCESS



MEASURE

AMC MEASUREMENT SOLUTIONS

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ENGINEERING, MANUFACTURING AND ANTIVIBRATION ASSISTANCE

VIBRATION ISOLATOR PRO: THE APP THAT HELPS YOU TO FIND THE CORRECT VIBRATION ISOLATOR
Let your phone discover the main disturbing frequencies of your application.

ACOUSTIC HANGER PRO: THE APP THAT HELPS YOU TO FIND THE CORRECT ACOUSTIC HANGER AND FLOATING FLOOR MOUNT
Let your phone discover the acoustic hanger or floating floor mount for your application.

TRANSFER FILES

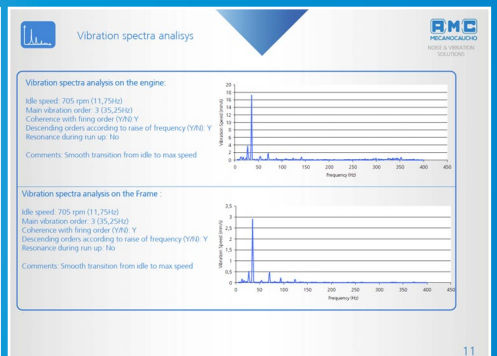
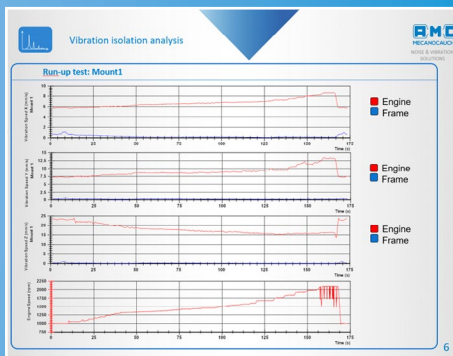
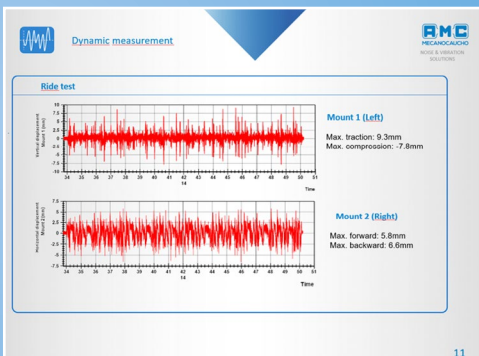
User:

Password:

LOG IN



ANALYSIS & REPORT





Pro kit

DESCRIPTION

Powerful 10x IEPE + 4x 0-10v analog input channel hardware. 2x triaxial ICP piezoelectric accelerometers, 1x ICP Tachometer, 1x ICP Modal hammer, & 1x ICP Microphone can be connected without any additional signal conditioner or energy supply. Analogic 2 x laser displacement transducers can be connected.

Powered by one LIPO 14,8v 6000MAh battery, it can be connected to any 12V-24V DC supply.

Dedicated mini-PC embedded that allows to acquired data autonomously. The complete Hardware can be installed on board without any additional external power supply on dynamic applications.

Data can be monitored and controlled externally via remote desktop with any Laptop, Smartphone or Tablet. Data can be monitored from anywhere in real time if the equipment is connected to internet (3G/4G or fix network).

HARDWARE

- 6 simultaneous IEPE 24 bits analog input channels, 12.8 kS/s per channel, +/- 30V.
- 4 simultaneous IEPE 24 bits analog input channels, 51.2 kS/s per channel, +/- 5.
- 4 simultaneous 16 bits analog input channels, 100 kS/s per channel, +/- 10V.
- 2x ceramic shear ICP® triaxial accelerometer. 100 mV/g. ±50 g pk. 0.5 to 5kHz.
- 2x Reinforced low noise polyurethane cables.
- 2x Analogic laser transducers.
- 1x ICP Microphone.
- 1x ICP Tachometer.
- USB camera.
- GPS sensor .
- Small, rough and polypropylene made case.
- All the accessories are packed in a organizer case.
- Dimension: 270x246x174(mm).



ADVANTAGES

- All in one integrated design.
- Very powerfull.
- Dedicated mini pc embedded.
- It can be installed on board without any additional power supply.
- Data can be monitored and controlled externally via remote desktop with any laptop, PC, Smarthpone, Tablet,...
- Real time remote data moni- torization (internet connection required: Fix network or 3G/4G).
- Very robust design.
- Maintenance free.

APPLICATIONS

- Stationary & Dynamic vibration measurement of any machine.
- Record vibration level while the machine is accelerating or decele- rating.
- Check isolation level while run- ning-up/down of antivibration mountings.
- Record dynamic displacement of any point object.
- Acceleration levels measurement.
- Record dynamic displacement of any point object.
- Acceleration levels measurement.
- Embedded mini PC.
- Wireless router.
- Small, rough and polypropylene made case.
- Dimension: 270x246x174(mm).

COMPATIBLE SOFTWARE:

AMC-MECANOCAUCHO
nvh analyzer fft



AMC-MECANOCAUCHO
nvh analyzer ride



AMC-MECANOCAUCHO
nvh analyzer modal



AMC-MECANOCAUCHO
nvh analyzer run-up





Advanced kit

DESCRIPTION

Handy 6x IEPE analog input channel + RS232/serial input acquisition hardware. 2x triaxial ICP piezoelectric accelerometers, 1x RS232 Laser displacement transducers & 1x RS232 Tachometer are included. All the hardware can be controlled with a laptop via USB. The recorded signal can be displayed an integrated together with a

video signal helping this way to understand what is happening, which is the worst event, ...

All the information will be stored in the laptop (not included).

Powered by one 19v 30000MAh Ion-Lithium battery, it can be connected to the vehicle 12V-24V DC supply.

HARDWARE

- 6 simultaneous IEPE 24 bits analog input channels, 12.8 kS/s per channel, +/- 30V.
- 1 Serial/RS232 digital input channel (Baud rate: 38400 (laser) , 57600 (Tachometer)).
- 2x ceramic shear ICP® triaxial. Accelerometer. 100 mV/g. ±50 g pk. 0.5 to 5kHz.
- 2x Reinforced low noise polyurethane cables.
- 1x RSR232 digital laser transducers.
- 1x RS232 Tachometer.
- GPS sensor.
- USB camera.
- Small, rough and polypropylene made case.
- All the accessories are packed in a organizer case.
- Dimension: 270x246x174(mm).



ADVANTAGES

- Compact design.
- Very easy to use.
- It can be installed on board without any additional power supply, a laptop has to be connected all the time.
- Very robust design.
- Maintenance free.

APPLICATIONS

- Stationary & Dynamic vibration measurement of any machine.
- Record vibration level while the machine is accelerating or decelerating.
- Check isolation level while running-up/down of antivibration mountings.
- Record dynamic displacement of any point object.
- Acceleration levels measurement.



COMPATIBLE SOFTWARE:

AMC-MECANOCAUCHO
nvh analyzer fft



AMC-MECANOCAUCHO
nvh analyzer modal



AMC-MECANOCAUCHO
nvh analyzer run-up





Compact kit

DESCRIPTION

Compact 3x IEPE channel acquisition hardware. 2x monoaxial ICP piezoelectric accelerometers can be connected without any additional signal conditioner or energy supply.

HARDWARE

- 3 simultaneous IEPE 24 bits analog input channels, 12.8 kS/s per channel, +/- 30v.
- 2x ceramic shear ICP® monoaxial accelerometer, 10 mV/g, 0.5 to 10kHz.
- 2x Reinforced low noise polyurethane cables.
- Small, rough and polypropylene made case.
- Dimension: 230x167x90 (mm)
It can work with any computer running WINDOWS 10 (computer not included).
- GPS sensor.
- USB camera.



ADVANTAGES

- Compact design.
- More cost effective.
- It can work with any computer running WINDOWS 10.
- Very robust design.
- Maintenance-free.

APPLICATIONS

- Stationary vibration measurement of any machine.
- Fast and simple measurement of anti vibration mountings isolation level.
- FFT spectrum analysis.
- Identify the main excitation frequency as well as the RMS amplitude.

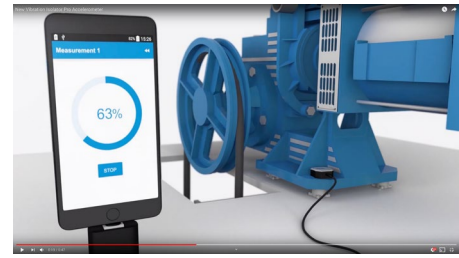


COMPATIBLE SOFTWARE:

AMC-MECANOCAUCHO
nvh analyzer fft



VIBRATION ISOLATOR PRO ACCELEROMETER



DESCRIPTION

AMC-MECANOCAUCHO® Accelerometer has been developed to work in conjunction with the AMC-MECANOCAUCHO® free of cost app Vibration Isolator Pro for Android and iOS.

This equipment can provide an immediate vibratory analysis in the

frequency domain, by connecting it to an Android or iOS mobile phone or tablet.

The application will guide the user along several steps in order to complete the analysis in an easy way.

ADVANTAGES:

- Compact design
- 3 axis accelerometer
- DC to 250Hz useful bandwidth
- Low noise
- iOS and Android compatible

APPLICATIONS:

- “Quick and dirty” vibration analysis
- Industrial machinery vibration analysis
- Industrial engines and gensets vibration analysis
- Anti-vibration mount selection based on the vibration analysis

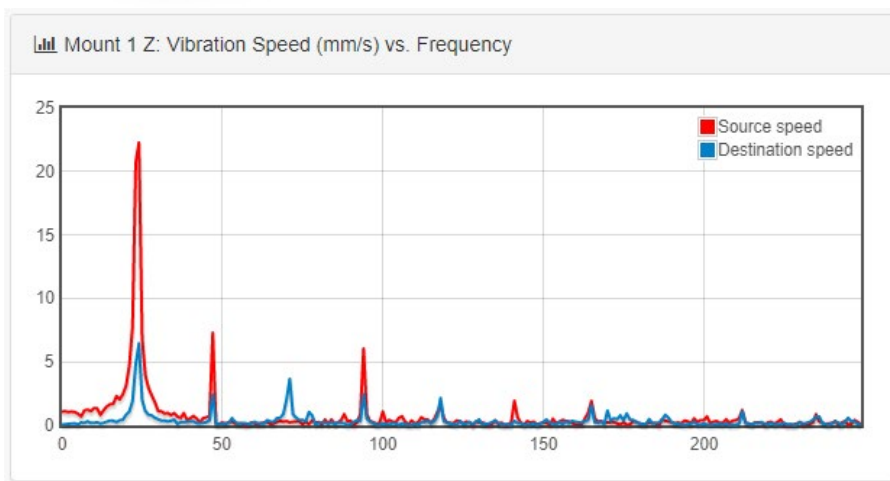


All dimensions are in millimeters



SPECIFICATIONS

Acceleration Range	± 16g
Lower frequency limit	0Hz
Upper frequency limit	250Hz
Sensor technology	MEMS
Output Units	mm/s
Sampling rate	44,1kHz
Dimension	35x35x15 mm
Weight	50 g
Case Material	Aluminium
Operating temperature range	-10 .. 50°C
Residual Noise density	300 µg/√Hz rms
Temperature coefficient	0.01%/°C
Power consumption	1.3W
Cross Axis sensitivity	1%



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NEW NVH ANALYZER APPS

IN ORDER TO HAVE EASIER AND MORE ACCURATE MEASUREMENT OF SOME SPECIFIC APPLICATIONS, AMC HAS DEVELOPED SOME DEDICATED APPLICATIONS FOR SOME SPECIFIC ENGINES AND REGULATIONS.

NVH ANALYZER ISO 8528-9

In order to check Genset vibrations levels are within ISO 8528-9 limits this application measures the vibration:

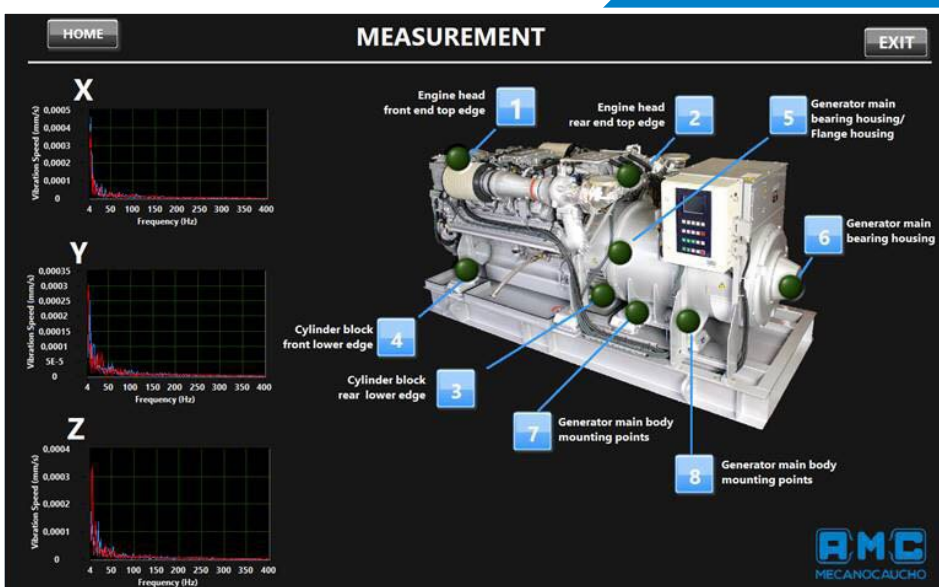
-Speed (mm/s)

-Displacement (mm) with the filters, sampling frequency and post processing specified in the norm. The vibration value has to be measured on the points that are shown in the application.

APP COVER



INSIDE APP



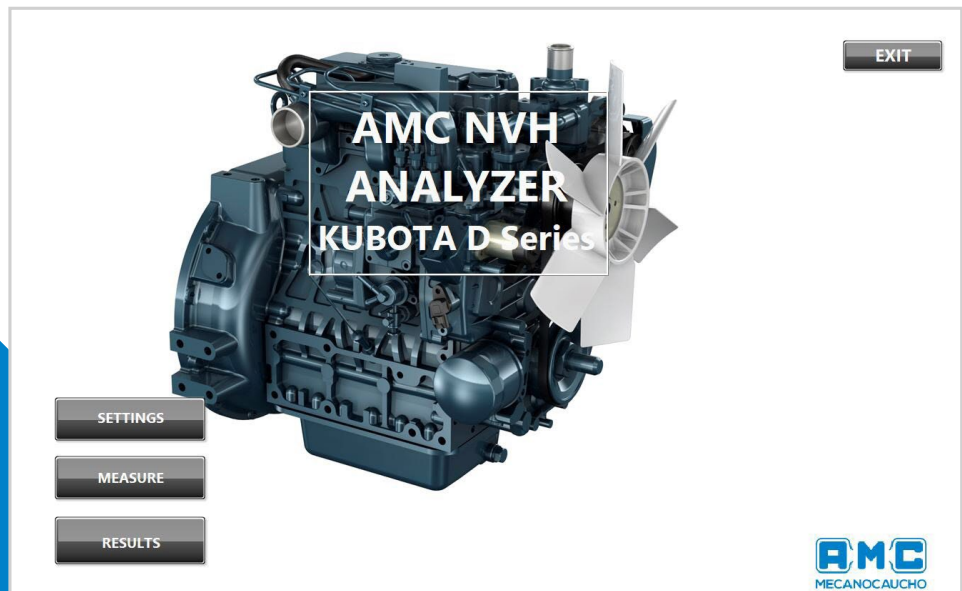
NVH ANALYZER KUBOTA D SERIES

In order to check if a KUBOTA D series engine is within the vibration levels that the engine manufacturer requires this application checks vibration:

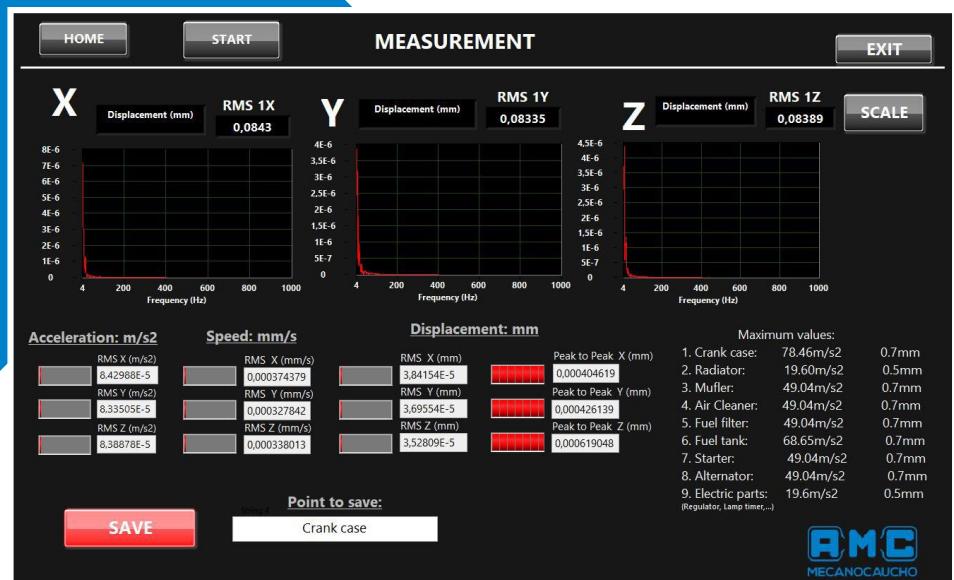
- Speed (mm/s)
- Displacement (mm)
- Acceleration (m/s²)

Many cases not fulfilling those vibration requirements means not getting worldwide guaranty approval.

APP COVER



INSIDE APP



NVH ANALYZER YANMAR TNV SERIES

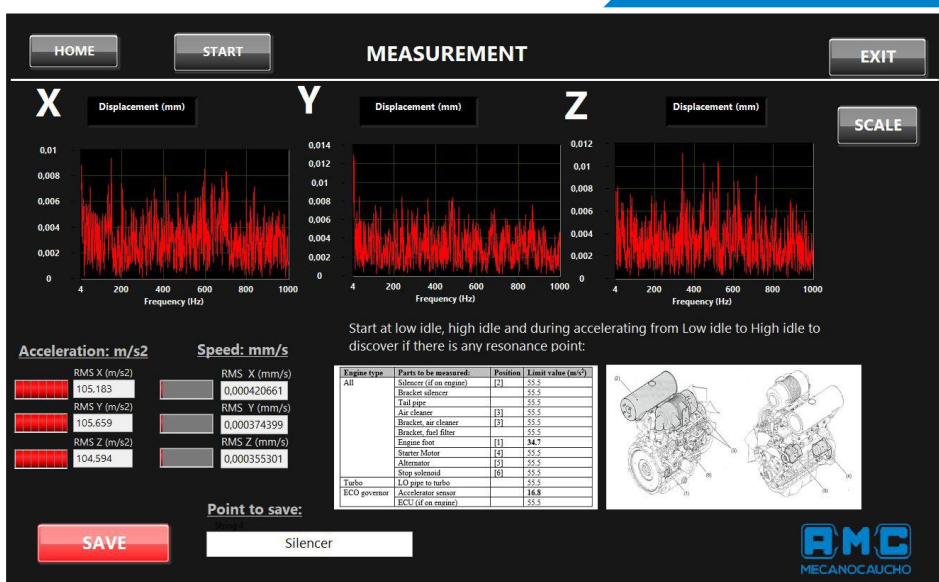
In order to check if a Yanmar tnv series engine is within the vibration levels that the engine manufacturer requires this application checks vibration:

- Speed (mm/s)
- Displacement (mm)
- Acceleration (m/s²)

APP COVER



INSIDE APP





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