

LubAnac

transport

➤ Diagnostic system intercity vehicles for optimized fleet management

LubAnac TRANSPORT is a diagnostic system for engines and transmission systems, based on the scientific interpretation of in-service oil analysis, which allows the fleet manager to reduce the maintenance costs of his machine park.

LubAnac TRANSPORT has been specially developed for monitoring long haul trucks and coaches in international transport (goods or passengers). The parameters measured according to last generation methods are both adapted to the severity of these machines and take into account the constraints of the manufacturers.

LubAnac TRANSPORT is recommended for:

- ✓ A systematic follow-up of the behavior of the wear of the mechanical parts and the lubricant.
- ✓ Prevention of breakdowns.
- ✓ Reinforcement of the longevity and the reliability of the material.
- ✓ Optimization of the maintenance actions for a better control of the cost price by kilometers.

➤ Measured characteristics

Wear of mechanical parts :

Emission spectrometry (ICP) of elements: Fe, Pb, Cu, Sn, Cr, Al, Ni (ppmc)

Lubricant contamination:

Silicium (ppm), Water (%)

Soot (%), Cooling liquid (presence), Fuel (%) : only for engine oil.

Lubricant characteristics:

Kinematic viscosity (mm²/s) at 100°C for engines and transmissions

Kinematic viscosity (mm²/s) at 40°C for hydraulic systems

TBN (mgKOH/g) and Nitration only for gas engines

Oxidation and Sulphated Ash for gas- and other engines

Option :

Additive elements Ca, Zn, P, Mg, Mo, Ba, V, Na, B, Ag

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➤ New functionalities

- **Oxidation (IR)** : This measurement on engine-oils confirms the adequacy between the lubricant and the severity of the service and thus validates the correct drain interval. This parameter is essential in the event of optimizing the drain intervals
- **Sulphated Ash** : The content of sulphated ash is an important element in the protection of after-treatment devices for Exhaust Gas Recirculation system and Diesel Particulate Filter system on engines of the latest generation with low emissions. This measurement ensures that the lubricant used is adequate with the vehicle's engine technology.
- **TBN (only for gas engines)**:The TBN (Total Base Number) value of the lubricant provides the necessary alkalinity reserve to neutralize acidic compounds.
TBN monitoring is used to check the oil's ability to remain in service especially for the proper monitoring of gas engines.
- **Graphs** : Representation of measured characteristics as graphs for a more direct and quicker reading.
- **Call-Back** : Better understanding of your results : on the secured website lubanac.totalenergies.com, a simple click on the Call-Back button and our technicians will contact you as soon as possible

➤ Diagnosis and comments

The diagnosis and comments are generated by the LubAnac TRANSPORT system which is based on:

- More than 45 years of experience and supply of the LubAnac database, more than 8,5 million analyses on more than 1 000 000 monitored parts.
- More than 1000 analyses per day
- Customer feedback on successful corrective actions.
- A comparison between the measured values and the wear references thanks to algorithms excluding variable parameters such as oil replenishments or excessive drain intervals
- A network of more than 30 laboratories all around the world feeding the database.

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➤ Presentation of results

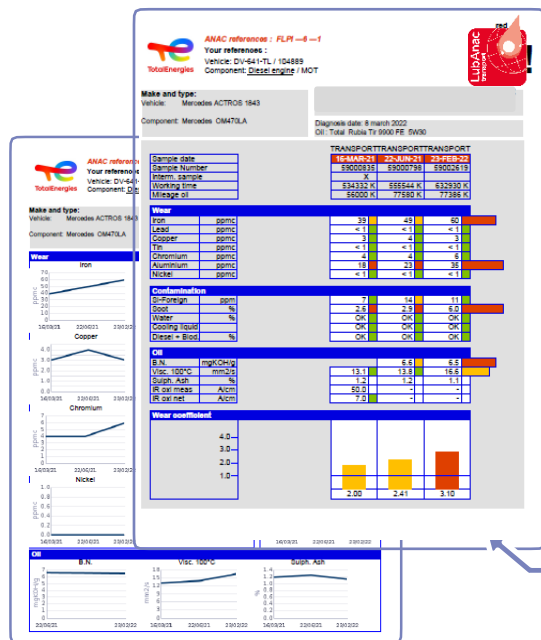
The results of the diagnosis are available 2 days after reception date for 90% of the samples (3 days for gas engines).

- Pre-data entry on the website.
- Sending results by mail.
- Online posting of results on the secure website lubanac.totalenergies.com
- Compatible with smartphone and tablet.



ENGINE

The history of the last 5 diagnoses is recalled on the report.



- ← Color code : green, orange, red
- ← Customer, machine, part and sample data
- ← Wear elements and color code
- ← Contamination elements and color code
- ← Physico-chemical characteristics: viscosity, Oxidation, sulphated ash (TBN and Nitration only for gas engines)
- ← Wear Coefficient : assesses the state of wear of each type of engine compared to identical engines in the LubAnac database in 1 figure
- ← Comments and recommendations



Satisfying diagnostic



Slight deviations



Anomaly found



Dangerous situation

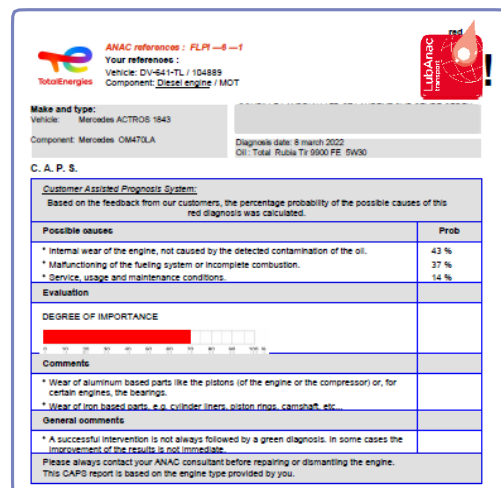
CAPS (Customer Assisted Prognosis System) :

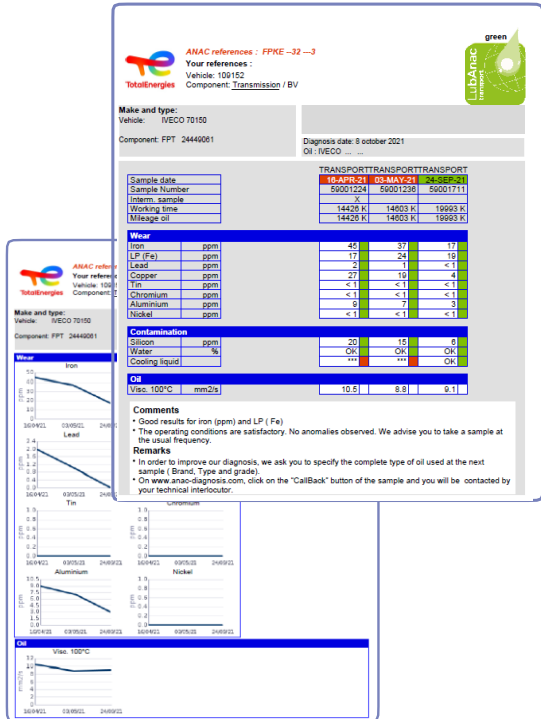
Only in case of red diagnosis. Relies on feedback from customers.

Possible causes and recommended interventions are indicated by percentages of probability.

The degree of urgency assesses the necessity of the intervention to be carried out.

The displayed comments focus on the peculiarities of this type of part.





Non-Engine Parts

Control and diagnosis of the wear elements in function of the make, the type and the mechanical part.

Graph Visualization

Did You Know ?



Oxidation is a key measurement in the follow-up of an in-service lubricant. A high oil oxidation can lead to an increase of the viscosity and the acidity of the oil generating corrosive compounds and deposits. The measurement is necessary in order to reach the optimal drain interval authorized by the OEM.



The content of sulphated ash is an important element in the protection of after-treatment devices for Exhaust Gas Recirculation system and Diesel Particulate Filter system on engines of the latest generation with low emissions. This measurement ensures that the lubricant used is adequate with the vehicle's engine technology.