

➤ The lab report – the entire information at a glance

The optimum oil operating life depends on many factors. The single engine manufacturers define exact limit values for the different parameters. These provide information on the condition of oil and engine

and are monitored by regular oil analyses. If only one of these limit values is exceeded, the warranty of your plant is put at risk!

The ABC of characteristic values:

Alkalinity stability

The combustion of gas results in acid combustion products which need to be absorbed and neutralised by the engine oil. An acidification of the engine oil leads to corrosive wear. The parameters given below are important criteria for indicating the oil acidification.

TBN	Total Base Number, alkaline reserve, neutralises acids which develop during combustion
TAN	Total Acid Number, extent of overall acidification of the oil
ipH-value	indicator of aggressive acids in the oil: the lower the ipH-value, the higher the risk of corrosion

The valid rule of thumb says: The TBN must always be higher than the TAN. For exact limit values please follow the respective manufacturer specifications!

Oil condition

It needs to be monitored carefully in order to avoid downtimes and additional maintenance effort.

Oxidation	main feature of oil ageing
Nitration	oil loading with nitrogen compounds, accelerates oil ageing
Viscosity increase	oil thickening, impairs flowability and lubricating film thickness

Ageing processes cause sludge deposition and varnish formation at the components. These impair power and performance of the engine, shorten operating lives and lead to grinding and wear. Moreover, oil ageing results in the formation of acid reaction products causing corrosion.

Wear elements

They provide information on the wear condition of the engine. By the help of these parameters wear can be detected at an early stage. Depending on the respective element (Fe, Pb, Al, Cu, Zr, Cr) or the combination of several elements, it is possible to draw conclusions on affected components.

Contaminants

Sodium, glycol or water in the engine oil usually indicate a contamination with antifreeze agent. If there is a rise of these values, the leak tightness of the cooling unit should be checked! Cooler protecting agent in the engine oil reduces both lubricating and cooling capacity. Therefore an oil change should be carried out.

Silicon can enter the system as gaseous compound and in the form of dust. It causes deposits on engine components under high thermal loads. Power loss, abrasive wear and engine damages can occur.

Trend analysis

Lists results of up to six previous analyses – this way the condition of both oil and engine can be monitored optimally.

Diagnosis and recommendation

Indicate if the oil operating life can be extended or possibly needs to be reduced. If there are conspicuous values, these are marked and you find an individual explanation on page 2 of the lab report.

Oil drain interval

Definition of number of operating hours which can be added or possibly need to be cut; the interval depends on gas quality, operating conditions, oil volume, and oil quality. It is determined by the help of our matrix taking into consideration general OEM specifications and our experience.

If the results allow an extension of the oil drain interval, you find the date for your next oil analysis in the report. You should follow this recommendation by any means in order to ensure the optimum monitoring of the oil and of your plant!

The sample form – how to complete it correctly

In order to allow the optimum evaluation of the results for your plant, we need your complete and correct data. Please complete the sample form carefully! In our instruction we have marked the respective hints in turquoise.

PROBENBEGLEITSCHHEIN
Sample Information Form (SIF)

Probe

Analysenumfang
Test scope

Gasmotorenölset (rot)
Gas Engine Kit (red)

Grund für die Analyse

Routinekontrolle Routine control

Trend, vorherige Labc

Ermittlung Ölwechselfrist First oil change interval

Sonstiger Grund Other reason

Reason for analysis

Ölsteinsatz First oil use

Schaden Damage

content: xxx ppm

Probenentnahme
Sample taken

TT dd MMmm JJyy

Letzter Ölwechsel
Oil changed

TT dd MMmm JJyy

Nachfüllmenge
Top up volume

Liter Litre

Öleinsatzzeit
Oil in use

TT dd MMmm JJyy

Gesamtlauzeit
Total operating time

Stunden Hours

Monate Months

Enter operating hours

Ja Yes

Nein No

Vor Before

Nach After

Probenentnahme Sampling

Öl gewechselt
Oil changed

Ja Yes

Nein No

Vor Before

Nach After

Probenentnahme Sampling

Öl

ADDINOL Gasmotorenöl

ADDINOL Gas Engine Oil M.C. - Euro Plus

ADDINOL Gas Engine Oil NG 40

ADDINOL Gas Engine Oil NG 4000 XD

Sonstige Other

Bitte hier abtrennen Please tear off

Maschine

Bezeichnung/Aggregat Bitte unbedingt ausfüllen! Unit ID Please complete

Please always enter the same name for the exact identification of the sample

z.B. Motorbezeichnung, Standort, Inventar-Nr. (max. 20 Zeichen)
e.g. engine name, location, inventory number (max. 20 characters)

Komponente / Probe aus Component / Sample from

Anwendung (Biogasmotor; Erdgasmotor; ...) eintragen oder unten ankreuzen
Enter application (biogas engine, natural gas engine, ...) or mark below

Biogasmotor

Biogas engine

Deponiegasmotor

Landfill gas engine

Klärgasmotor

Sewage gas engine

Andere Gasart

Other gas type

Please select

Zündstrahl-Gasmotor Pilot injection gas engine

Zündöltyp Injection oil type

Heizöl Heating oil

Biodiesel Biodiesel

Sonstige Other

Rapsöl/Rape seed oil

Sojablöl Soybean oil

Palmöl Palm oil

Motorhersteller Engine manufacturer

Motortyp Engine type

Seriennummer Serial number

Ölmenge im System Oil quantity

Liter Litre

Bemerkung Remark

Ihr Probenbeleg Keep for your reference

Bezeichnung Aggregat Unit ID

Please always enter the same name for the exact identification of the sample

Komponente / Probe aus Component / Sample from

Biogasmotor

Klärgasmotor

Erdgasmotor

Deponiegasmotor

Sonstige

Biogas engine

Sewage gas engine

Natural gas engine

Landfill gas engine

Other

Lab-Nr. / Lab-no. 1234567

Customer

Kunde ADDINOL

Firma Company

Company XYZ

Name Name

John Q. Public

Abteilung Department

e.g. Technics

Straße, Postfach Street, P.O. Box

Yourstreet 1

Land, PLZ, Ort Country, ZIP, City

Yourcountry, Yourzip, Yourtown

Telefon, Durchwahl Phone Number, Direct

01234/ 54689

Handy Mobile Phone

Webseite Website

E-Mail E-Mail

additional e-mail address if required: yourname@email.com

Labbericht geht an Lab-report is sent to

gasmotorenoelanalyse@addinol.de

Zusätzliche Angaben (erscheinen auf dem Laborbericht)
Additional notes (printed in lab-report)

ADDINOL contact or distribution partner

detach and file away

Please stick bar code onto sample bottle

Bitte diesen Barcode auf das Probengefäß kleben!
Please stick this barcode label on the sample bottle!

TIP!
Always have your lab.-no. ready in case of questions



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Please complete this slip by shipping date and UPS tracking # on the back.