

Reliable operation as well as optimum and tailored oil change intervals thanks to the ADDINOL analyses service

Regular checks of the oil condition and oil changes carried out in defined intervals are the precondition for the stable and lucrative operation of cogeneration unit. Therefore, ADDINOL accompany the use of ADDINOL gas engine oils with our specially developed analyses service.



Minimum effort with ADDINOL sampling set

Easy handling for you during sampling with the prepared set. Fill out the pre-printed sample form and dispatch sample bottle and form to the OELCHECK laboratory in Brannenburg/Germany. In addition, with the return service from UPS your oil sample is picked up within one day – with just one phone call. Please contact our application technology department for the freight costs applicable in your country.

Exploit the potential of your oil filling at maximum safety for your engine

On the footing of our special matrix, which based on the limit values defined by the manufacturers as well as on values obtained in field tests and practical applications, we identify the individual oil change interval for your plant, tailored to the respective conditions on the spot and the condition of both oil and engine. By the help of our analyses, the potential of your oil filling is utilized perfectly and at maximum safety for your engine. Thanks to optimum monitoring and trend analyses a considerable extension of the oil change intervals can be achieved within the manufacturer specifications.

Your benefits with the ADDINOL analyses service

- ✓ condition monitoring of oil and engine
- ✓ maximum oil operating life tailored to the respective conditions
- ✓ increase of operational safety
- ✓ improved planning of maintenance and oil changes
- ✓ compliance with warranty conditions of OEM and conditions of machinery breakdown insurance

Extra Tip!

Change over to ADDINOL gas engine oils and we pay the costs for up to two analyses within our starter kit!

ADDINOL is one of the few companies in German mineral oil industry acting independently of any large business group and has distribution partners on all continents in more than 90 countries. Due to the own research and development department and the close co-operation with leading OEM ADDINOL gas engine oils are tailored to the complex and versatile requirements of demanding gas engines. With more than 650 High-Performance lubricants ADDINOL provides ultimate solutions even for the biggest lubrication-related challenges in both automotive and industrial division.



ADDINOL lab report

ADDINOL Lube Oil GmbH • Am Haupttor • D-06237 Leuna



Page 1 of 2

Clearly structured layout:
important information at a glance and for good readability

Explicit traffic light system
for individual oil operating time

Mobile:
E-Mail:

Engine identification: **E22019**
Number of current sample: **2410754**
Machine type: **BR 4000**
Machine manufacturer: **MTU Onsite Energy Biogas**
Fuel:
H₂S-concentration in ppm:
Oil name: **ADD MG 40 Extra PLUS**
Oil volume: **580**

Diagnosis:

You can optimize your oil change period as follows:

basis (oh): **7950** **new oiltest**
basis (date): **09.09.2015** **8200**

Recommendation

+250 oh

prolongation
oil change

Recommendation for the next oil change

Individual oil operating time: tailored to the respective conditions on the spot and the condition of both oil and engine

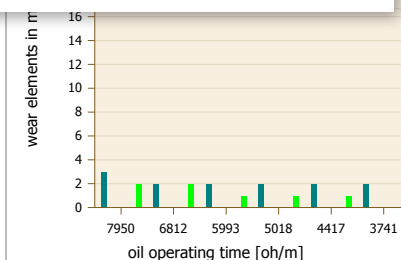
Clear, tabular view of all analytical parameters

Trend analyses: Up to 6 analyses at one glance

	Current sample	Previous analyses				
Analysis results						
Lab number	2410754	2410755	2410756	2410757	2410753	2410758
Date of analysis	11.09.2015	24.07.2015	17.06.2015	05.05.2015	08.04.2015	10.03.2015
Sampling date	09.09.2015	22.07.2015	15.06.2015	04.05.2015	07.04.2015	09.03.2015
Last oil change	01.10.2014	01.10.2014	01.10.2014	01.10.2014	01.10.2014	01.10.2014
Top up since oil change	l					
Op. h since oil change	oh/m	7950	6812	5993	5018	4417
Operating hours complete	oh/m	30958	29840	29021	28046	27445
Oil changed	No	No	No	No	No	No
Alkaline stability						
TBN	mgKOH/g	7	7,3	7,5	7,63	7,73
TAN	mgKOH/g	4,4	4,05	3,82	3,5	3,31
i-pH		5,28	5,62	6,03	5,36	5,3
Oil condition						
Viscosity at 100°C	mm ² /s	15,32	14,97	14,96	14,52	14,59
		7	5	5	2	2
		12	10	9	8	7
		16	12	10	8	7
						5
Trace elements						
Iron (Fe)	mg/kg	3	2	2	2	2
Lead (Pb)	mg/kg	0	0	0	0	0
Aluminium (Al)	mg/kg	0	0	0	0	0
Tin (Sn)	mg/kg	0	0	0	0	0
Molybdenum	mg/kg	0	0	0	0	0
Chrome (Cr)	mg/kg	0	0	0	0	0
Copper (Cu)	mg/kg	2	2	1	1	1
Impurities						
PQ Index		<25	<25	<25	<25	<25
Silicon (Si)	mg/kg	0	0	1	1	1
		1	1	0	0	0
		1	1	1	1	1
		<0,1	<0,1	<0,1	<0,1	<0,1
Previous ADDINOL recommendation:	+250 oh	+250 oh	+250 oh	+250 oh	+250 oh	+250 oh

* Precondition for the determined next oil changes are constant operating conditions. Laboratory results were determined by independent laboratories and form the basis for this recommendation. The recommendation is only valid for the particular aggregate given under the stated operating conditions and cannot be applied to other aggregates, nor aggregates of the same type. Validity of test results depends on the exactness of the supplied sample data. Irrespective of this result, possible recommendations of the manufacturer on the use of lubricants must be followed.

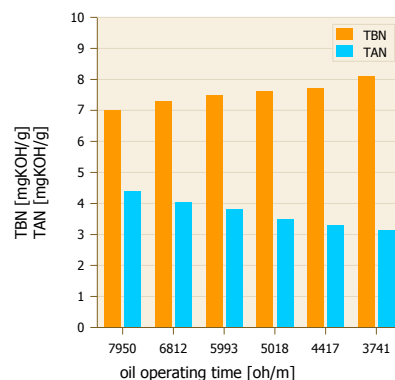
Graphical overview of the most important characteristics



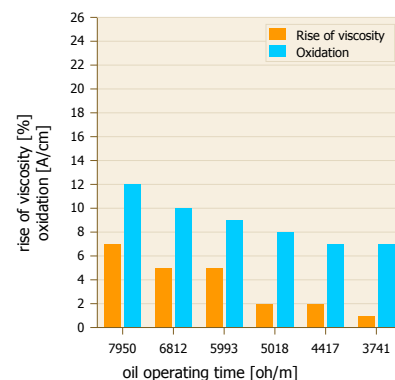
Page 2 of 2

Engine identification: **E22019**
Date of analysis: **09.09.2015**
Number of current sample: **2410754**

Alkaline stability



Oil ageing



Notice:
The recommendation considers the latest demands of the OEM

Please note: the picture shows a complete laboratory report. The recommendation is valid only for the given unit under the given operating conditions. The determined values cannot be applied to any other aggregate, not even to units of the same type.