

LAB REPORT

Unit id
ZF37_68813HL

Component
Main/rotor bearing



Lab number: 1705367

Machine type Centrifuge S5-1 / 8	Manufacturer Andritz	Sample from Main bearing
Oil brand name Shell Tellus S3 M 68	Oil quantity in system 200 l	Location ZF37_68813
Additional sample information ZF37_68813	Additional unit information 6434930	

The wear values are within the normal range. If an oil change has not yet been carried out, continued use of the oil would be possible under similar operating conditions while maintaining routine maintenance work. I advise you: Send us the next sample at your next maintenance or during the routine inspection to monitor the trend behavior.



NORMAL

Dipl.-Ing. Andy Böhme (MLA II + CLS)

ANALYSIS RESULTS			Current sample	Previous analyses (not shown: 10) →				
Lab number			1705367	1705368	1705369	1705370	1705371	1705372
SAMPLE RATING			✓	✓	⚠	✓	✓	✓
Date of examination			07.03.2025	19.09.2024	11.03.2024	17.08.2023	13.03.2023	17.10.2022
Date of sample taken			24.02.2025	09.09.2024	05.03.2024	08.08.2023	08.03.2023	12.10.2022
Date of last oil change			16.08.2018	16.08.2018	16.08.2018	16.08.2018	16.08.2018	16.08.2018
Top-up since change			0 l	-	0 l	0 l	0 l	0 l
Operating time since change			38694 h	34851 h	32407 h	29402 h	26409 h	23394 h
Total operating time			131499 h	127656 h	125212 h	122207 h	119214 h	116199 h
Oil changed			no	no	no	no	no	no
WEAR								
Iron	Fe	mg/kg	2	3	32	5	4	4
Chrome	Cr	mg/kg	0	0	0	0	0	0
Tin	Sn	mg/kg	0	0	0	1	0	0
Aluminum	Al	mg/kg	0	0	0	0	0	0
Nickel	Ni	mg/kg	0	0	0	0	0	0
Copper	Cu	mg/kg	1	1	2	1	1	0
Lead	Pb	mg/kg	0	1	0	0	1	1
Molybdenum	Mo	mg/kg	0	3	0	0	0	0
Manganese	Mn	mg/kg	0	0	1	0	0	0
PQ index	-	-	< 25	< 25	< 25	< 25	< 25	< 25
CONTAMINATION								
Silicon	Si	mg/kg	1	1	6	4	3	3
Potassium	K	mg/kg	0	0	1	0	0	0
Sodium	Na	mg/kg	1	0	0	3	1	0
Tungsten	W	mg/kg	-	-	-	-	-	1
Bismuth	Bi	mg/kg	-	-	5	6	5	5
Water		%	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

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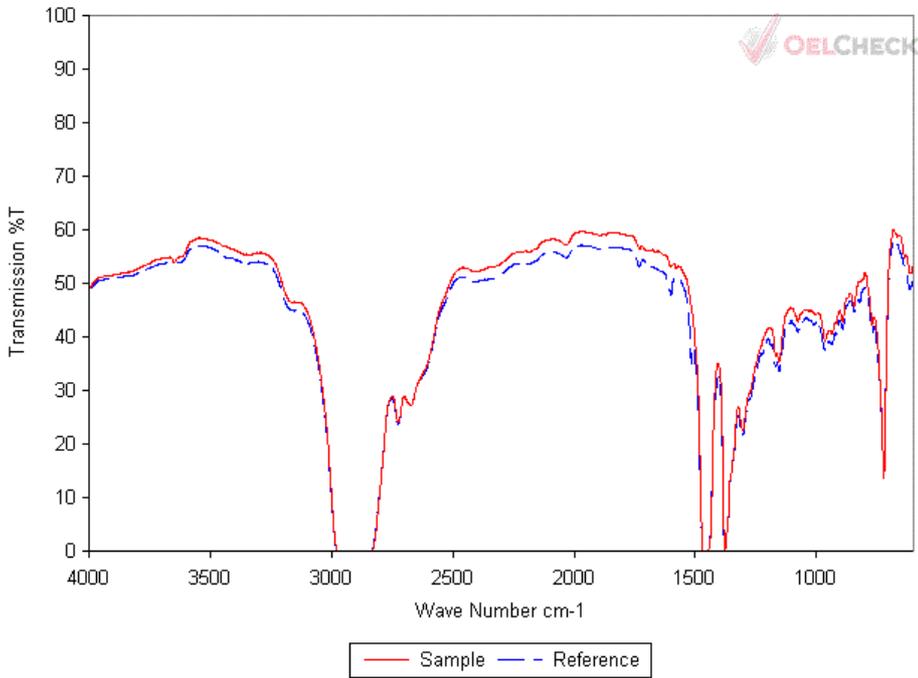
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Date of sample taken		24.02.2025	09.09.2024	05.03.2024	08.08.2023	08.03.2023	12.10.2022
OIL CONDITION							
Viscosity at 40 °C	mm ² /s	69.11	67.77	69.81	69.79	68.31	68.92
Viscosity at 100 °C	mm ² /s	9.02	8.96	9.27	9.23	9.16	9.21
Viscosity index	-	105	106	109	108	110	110
Oxidation	A/cm	1	1	1	1	1	1
ADDITIVES							
Calcium	Ca mg/kg	48	51	64	40	32	31
Magnesium	Mg mg/kg	1	0	3	0	0	0
Boron	B mg/kg	0	0	0	0	0	0
Zinc	Zn mg/kg	4	5	18	20	17	19
Phosphorus	P mg/kg	48	50	28	31	25	27
Barium	Ba mg/kg	0	0	0	0	0	0
Sulphur	S mg/kg	173	260	246	246	228	262
ADDITIONAL TESTS							
AN / NN	mgKOH/g	0.10	0.12	< 0.10	< 0.10	< 0.10	< 0.10
Cleanliness class	ISO 4406	20/18/13	19/16/10	23/20/12	18/16/11	20/18/12	19/17/12
A: >4µm = ISO >4µm	Anzahl/100ml	582760	362696	5767829	214412	943242	403134
B: >6µm = ISO >6µm	Anzahl/100ml	143865	51070	734013	41868	187862	74719
C: >14µm = ISO >14µm	Anzahl/100ml	7904	510	3601	1201	3110	2901
D: >21µm	Anzahl/100ml	2301	102	500	400	803	700
E: >38µm	Anzahl/100ml	100	0	0	0	100	100
F: >70µm	Anzahl/100ml	0	0	0	0	0	100
Cleanliness class	SAE AS 4059	10A	9A	> 12A	9A	11A	10A



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SAMPLE IMAGES (LABORATORY NUMBER: 1705367)



INFRARED SPECTRUM



BOTTLE AND CAP



Any questions?

Phone: +49 8034 9047-210
ta@oelcheck.de

LAB.REPORT



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sample/1705367](http://www.lab.report/sample/1705367)

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Diagnosis for Optical Particle Analysis

The values determined for non-metallic contaminants and wear particles are within the normal range.

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ANALYSIS RESULTS	Current sample
Lab number	1705367
Date of examination	07.03.2025
Date of sample taken	24.02.2025

PARTICLES IN THE CURRENT SAMPLE		
Cutting wear	Anzahl/ml	< 20
Sliding wear	Anzahl/ml	< 20
Fatigue wear	Anzahl/ml	< 20
Non metallic particles	Anzahl/ml	< 20
Unclassified	Anzahl/ml	< 20
Cleanliness class ISO 4406		20/18/13
>4µm	Anzahl/100ml	582760
>6µm	Anzahl/100ml	143865
>14µm	Anzahl/100ml	7904
>21µm	Anzahl/100ml	2301
>38µm	Anzahl/100ml	100
>70µm	Anzahl/100ml	0
Cleanliness class SAE AS 4059		10A



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