

LAB REPORT

Unit id
REFRIGERATING COMPRESSOR
Component
Refrigerant NH3



Lab number: 1700942

Machine type
C1 SKM2-K, Screwpack

Manufacturer
ABC

Oil brand name
Sulzer SKM 52

Oil quantity in system
220 l

Sample Report
Scope of Analysis: Special Set VK2

The values for wear metals have only increased slightly. This low wear is within the normal range. Zinc slightly elevated. Possible cause: Mixing with a zinc-containing oil or reaction with zinc-containing or galvanized components, usually in connection with moisture or oil aging. The water content is in the borderline range. However, no action is required yet. You should monitor the further change based on the next analysis. You should monitor the further change based on the next analysis. I advise you: Send us the next sample at your next service or during the regular inspection to observe the trend behavior.

Dipl.-Ing. Rüdiger Krethe



CAUTION

ANALYSIS RESULTS			Current sample	Previous samples →			
Lab number			1700942	1700943	1700944	1700945	1700946
SAMPLE RATING							
Date of examination			17.03.2025	29.01.2024	21.01.2022	22.02.2021	10.02.2020
Date of sample taken			02.03.2025	21.01.2024	12.01.2022	09.02.2021	03.02.2020
Date of last oil change			23.11.2022	23.11.2022	25.10.2015	29.09.2015	29.09.2015
Top-up since change			10 l	5 l	71 l	45 l	25 l
Operating time since change			7642 h	3601 h	24881 h	21497 h	20198 h
Total operating time			60787 h	56689 h	48858 h	45120 h	40792 h
Oil changed			no	no	no	no	no
WEAR							
Iron	Fe	mg/kg	12	7	17	22	22
Chrome	Cr	mg/kg	0	0	0	0	0
Tin	Sn	mg/kg	4	5	7	6	5
Aluminum	Al	mg/kg	0	0	2	1	1
Nickel	Ni	mg/kg	0	0	0	0	0
Copper	Cu	mg/kg	0	0	0	0	0
Lead	Pb	mg/kg	0	0	0	0	0
Molybdenum	Mo	mg/kg	0	0	0	0	0
PQ index	-	-	< 25	< 25	< 25	27	38
CONTAMINATION							
Silicon	Si	mg/kg	2	1	0	0	2
Potassium	K	mg/kg	0	0	0	0	0
Sodium	Na	mg/kg	1	1	1	1	1
Water K. F.		ppm	832	718	882	1013	1544
OIL CONDITION							
Viscosity at 40 °C		mm ² /s	52.10	52.09	53.66	52.85	52.29
Viscosity at 100 °C		mm ² /s	11.18	10.82	11.20	11.21	11.11
Viscosity index		-	214	205	208	212	212
Oxidation		A/cm	3	3	4	5	5
IR index		-	97.14	99.07	95.45	94.89	94.74
Color		Farbzahl	0.5	0.5	2.5	3.0	2.5

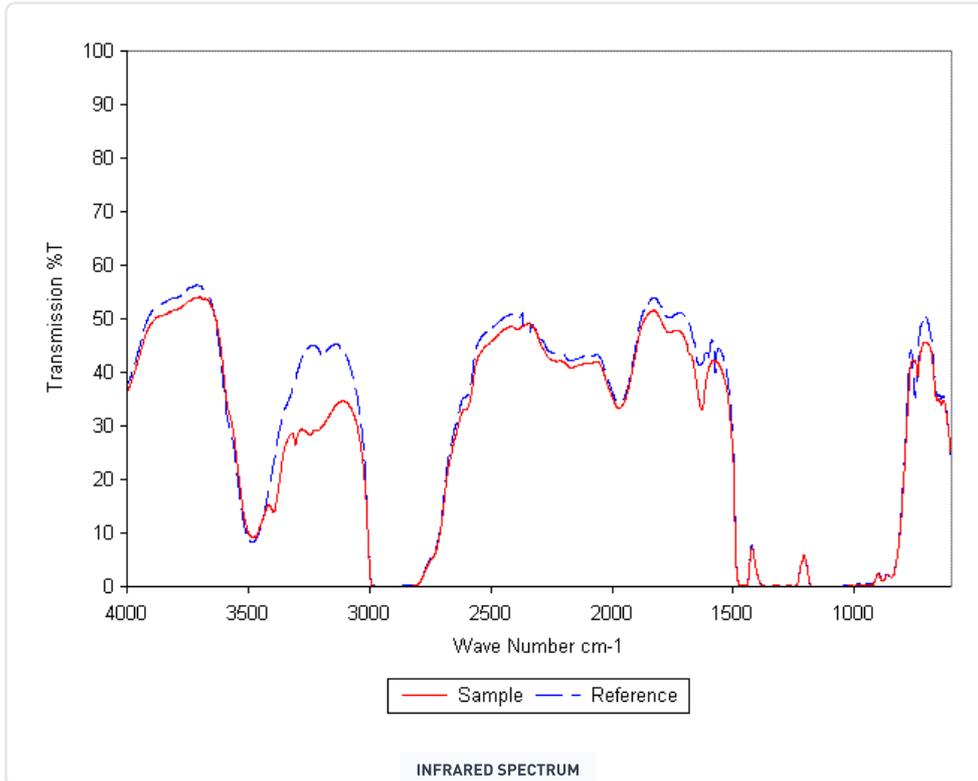


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ADDITIVES								
Calcium	Ca	mg/kg	0	0	0	0	0	
Magnesium	Mg	mg/kg	0	0	0	0	0	
Boron	B	mg/kg	0	0	0	0	0	
Zinc	Zn	mg/kg	95	41	227	275	314	
Phosphorus	P	mg/kg	17	22	21	21	13	
Barium	Ba	mg/kg	7	4	7	5	4	
ADDITIONAL TESTS								
BN		mgKOH/g	1.28	0.86	0.97	1.06	0.75	

SAMPLE PICTURES



BOTTLE AND CAP



Any questions?

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