

# LAB REPORT

Unit ID **Refrigeration compressor**  
 Component **Refrigerant NH3**  
 Current sample number **1700942**



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OELCHECK GmbH · Kerschelweg 28 · 83098 Brannenburg

Machine type: **C1 SKM2-K, Screwpack**  
 Manufacturer: **ABC**  
 Oil brand name: **Sulzer SKM 52**  
 Oil quantity in system: **220 l**

Example report  
 Analysis scope: Special kit VK2

## Diagnosis for the current laboratory values

The values for wear metals have only increased slightly. This low wear is within the normal range. Zinc slightly increased. Possible reason: Contamination with an oil containing zinc or reaction with zinc-plated materials or materials containing zinc, mostly in connection with moisture or oil aging. The water content is close to critical. But still no action is required. You should observe the value in the next analysis. Please observe further changes with the next sample. I recommend that you send the next sample at the next service interval or at your regular inspection for trend analysis.

Dipl.-Ing. Rüdiger Krethe

## Sample Rating



## Caution

ANALYSIS RESULTS			Current sample	1 previous samples not shown		
LAB NUMBER			1700942	1700943	1700944	1700945
SAMPLE RATING						
Date tested			15.03.2023	27.01.2022	21.01.2020	20.02.2019
Date of sample taken			02.03.2023	21.01.2022	12.01.2020	09.02.2019
Date of last oil change			23.11.2020	23.11.2020	25.10.2013	29.09.2013
Top-up since change	l		10	5	71	45
Operating time since change	h		7642	3601	24881	21497
Total operating time	h		60787	56689	48858	45120
Oil changed			no	no	no	no
WEAR						
Iron	Fe	mg/kg	12	7	17	22
Chrom	Cr	mg/kg	0	0	0	0
Tin	Sn	mg/kg	4	5	7	6
Aluminum	Al	mg/kg	0	0	2	1
Nickel	Ni	mg/kg	0	0	0	0
Copper	Cu	mg/kg	0	0	0	0
Lead	Pb	mg/kg	0	0	0	0
Molybdenum	Mo	mg/kg	0	0	0	0
PQ index	-		< 25	< 25	< 25	27
CONTAMINATION						
Silicon	Si	mg/kg	2	1	0	0
Potassium	K	mg/kg	0	0	0	0
Sodium	Na	mg/kg	1	1	1	1
Water K. F.	ppm		832	718	882	1013
OIL CONDITION						
Viscosity at 40°C	mm²/s		52.10	52.09	53.66	52.85
Viscosity at 100°C	mm²/s		11.18	10.82	11.20	11.21
Viscosity index	-		214	205	208	212
Oxidation	A/cm		3	3	4	5
IR index	-		97.14	99.07	95.45	94.89
Color	Color index		0.5	0.5	2.5	3.0
ADDITIVES						
Calcium	Ca	mg/kg	0	0	0	0
Magnesium	Mg	mg/kg	0	0	0	0
Boron	B	mg/kg	0	0	0	0
Zinc	Zn	mg/kg	95	41	227	275
Phosphorus	P	mg/kg	17	22	21	21
Barium	Ba	mg/kg	7	4	7	5
ADDITIONAL TESTS						
BN	mgKOH/g		1.28	0.86	0.97	1.06

