

PROBLEM SUMMARY

Sample Rating Trend



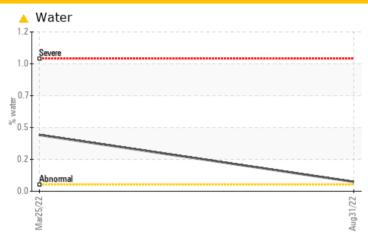
8079074 (S/N 1144)

Component

Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. We recommend an early resample in 500 hours to monitor this condition.

PROBLEMATIC TEST RESULTS									
Sample Status				ABNORMAL	ABNORMAL				
Water	%	ASTM D6304	>0.05	△ 0.071	△ 0.424				
ppm Water	ppm	ASTM D6304	>500	719.1	4240				
Debris	scalar	*Visual	NONE	▲ MODER	▲ MODER				

Customer Id: HEAGRE Sample No.: KC103457 Lab Number: 05635074 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDE				
Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component.
Alert			?	We were unable to perform a particle count due to a high concentration of

HISTORICAL DIAGNOSIS

25 Mar 2022 Diag: Jonathan Hester

WATER



We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition. All component wear rates are normal. There is a moderate concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT



WATER

8079074 (S/N 1144)

Component

Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. We recommend an early resample in 500 hours to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a trace of moisture present in the oil. Moderate concentration of visible dirt/debris present in the oil.

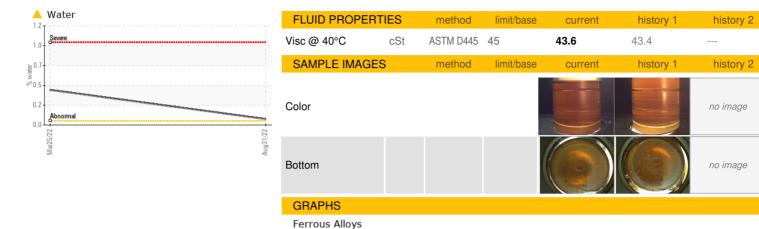
Fluid Condition

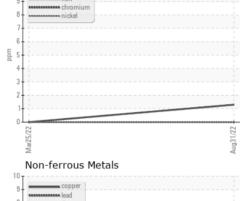
The AN level is acceptable for this fluid.

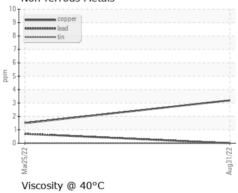
Sample Number Sample Date Sample Sample Sample Sample Sample Status Sample Status				Mar2022	Aug2022		
Sample Date 31 Aug 2022 25 Mar 2022	SAMPLE INFOR	MATION	method	limit/base	current	history 1	history 2
Machine Age hrs	Sample Number				KC103457	KC97471	
Dil Changed hrs	Sample Date				31 Aug 2022	25 Mar 2022	
Not Changed Not Changed ABNORMAL ABNORMAL Sample Status Not Changed ABNORMAL ABNORMAL Sample Status Not Changed ABNORMAL ABNORMAL Sample Status Not Changed Sample Status Sample Status	Machine Age	hrs			621	375	
MEAR METALS	Oil Age	hrs			621	375	
WEAR METALS method limit/base current history 1 history 2 Iron ppm ASTM D5185m >50 1 0	Oil Changed				Not Changd	Not Changd	
Chromium	Sample Status				ABNORMAL	ABNORMAL	
Chromium ppm ASTM D5185m >10 0 0	WEAR METALS		method	limit/base	current	history 1	history 2
Nickel	Iron	ppm	ASTM D5185m	>50	1	0	
Description	Chromium	ppm	ASTM D5185m	>10	0	0	
Silver	Nickel	ppm	ASTM D5185m	>3	0	0	
Aluminum ppm ASTM D5185m >10	Titanium	ppm	ASTM D5185m	>3	0	0	
Lead	Silver	ppm	ASTM D5185m	>2	0	0	
Copper	Aluminum	ppm	ASTM D5185m	>10	<1	<1	
Copper	Lead		ASTM D5185m	>10	0	<1	
Name							
Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history 2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 0 <1 Molybdenum ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 0 0 0 <1 Calcium ppm ASTM D5185m 0 0 0 <1	• •				-		
Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history 1 history 2 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 100 33 51 Magnesium ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 0 3 1 Magnesium ppm ASTM D5185m 0 3 1 Magnesium ppm ASTM D5185m 0 3 1 Calcium ppm ASTM D5185m 0 3 1 CONTAMINANTS method limit/base current history 1	* * * *						
Boron					•		
Boron	ADDITIVES		method	limit/base	current	history 1	history 2
Barium	Boron	mag	ASTM D5185m	0	0		
Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m <1							
Manganese ppm ASTM D5185m <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td>					-		
Magnesium ppm ASTM D5185m 1 00 33 51 Calcium ppm ASTM D5185m 0 0 <1	•						
Calcium ppm ASTM D5185m 0 0 <1 Phosphorus ppm ASTM D5185m 0 3 1 Zinc ppm ASTM D5185m 0 5 5 Zinc ppm ASTM D5185m 0 5 5 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 0 <1	-			100			
Phosphorus ppm ASTM D5185m 0 3 1 Zinc ppm ASTM D5185m 0 5 5 CONTAMINANTS method limit/base current history 1 history 2 Solicon ppm ASTM D5185m >25 0 <1 Sodium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D6304 >0.05 0.071 0.424 Water % ASTM D6304 >0.05 0.071 0.424 Opm Water ppm ASTM D6304 >500 719.1 4240 FLUID DEGRADATION method limit/base current history 1 history 2 Acid Number (AN) mg KOHlg ASTM D8045 1.0 0.27 0.29 VISUAL method limit/base current history 1 history 2 Yellow Metal scalar							
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Solition	-				-		
Sodium		o e					history 2
Potassium ppm ASTM D5185m >20 0 2 Water % ASTM D6304 >0.05 ▲ 0.071 ▲ 0.424 opm Water ppm ASTM D6304 >500 ▲ 719.1 ▲ 4240 FLUID DEGRADATION method limit/base current history 1 history 2 Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.27 0.29 VISUAL method limit/base current history 1 history 2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE MODER NONE Debris scalar *Visual NONE MODER MODER Sand/Dirt scalar *Visual NORML				>25			
Water % ASTM D6304 >0.05		ppm					
ppm Water ppm ASTM D6304 >500 ▲ 719.1					-		
FLUID DEGRADATION method limit/base current history 1 history 2 Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.27 0.29 VISUAL method limit/base current history 1 history 2 White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE MODER Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML COdor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.05 NEG 0.2%		%					
Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.27 0.29 VISUAL method limit/base current history 1 history 2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE MODER Silt scalar *Visual NONE MODER MODER Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.05 NEG 0.2%	ppm Water	ppm	ASTM D6304	>500	▲ 719.1	<u>4240</u>	
VISUAL method limit/base current history 1 history 2 White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE MODER Debris scalar *Visual NONE NONE MODER Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE NONE Appearance scalar *Visual NORML Scalar *Visual NORML Emulsified Water scalar *Visual >0.05 NEG 0.2%	FLUID DEGRADA	ATION	method	limit/base	current	history 1	history 2
White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE MODER Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.05 NEG 0.2%	Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.27	0.29	
Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE MODER Debris scalar *Visual NONE MODER MODER Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.05 NEG 0.2%	VISUAL		method	limit/base	current	history 1	history 2
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Silt scalar *Visual NONE NONE MODER Debris scalar *Visual NONE MODER MODER Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.05 NEG 0.2%	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Debris scalar *Visual NONE ▲ MODER	Precipitate	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.05 NEG 0.2%	Silt	scalar	*Visual	NONE	NONE	▲ MODER	
Appearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEG0.2%	Debris	scalar	*Visual	NONE	▲ MODER	▲ MODER	
Appearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEG0.2%	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.05 NEG 0.2%	Appearance	scalar		NORML		NORML	
Emulsified Water scalar *Visual >0.05 NEG 0.2%							
							ager-=-HEAGF

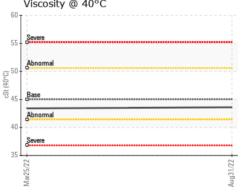


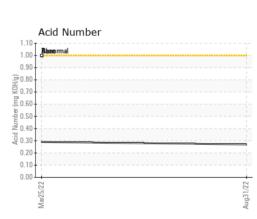
OIL ANALYSIS REPORT













Certificate L2367

Laboratory Sample No. Lab Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Unique Number : 10124604

: KC103457 : 05635074 Test Package : IND 2

Received Diagnosed Diagnostician : Don Baldridge

: 06 Sep 2022 : 08 Sep 2022

HEATSINK 801 INDUSTRIAL PARK DR GREENVILLE, MI USA 48838 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: