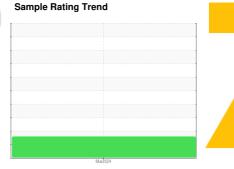


OIL ANALYSIS REPORT

Machine Id KAESER SX 5 6959939 (S/N 1150)

Compressor

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





DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

All component wear rates are normal.

Contamination

There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION method limit/base current history1 Sample Number Client Info KCPA013004 Sample Date Client Info 13 Mar 2024 Machine Age hrs Client Info 326 Oil Age hrs Client Info Changed Oil Changed Client Info Changed Sample Status Mexiculty ABNORMAL WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >50 0 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 <1 Vanadium<	history2
Sample Date Client Info 13 Mar 2024 Machine Age hrs Client Info 821 Oil Age hrs Client Info 326 Oil Changed Client Info Changed Sample Status Method Imitivbase current history1 WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >50 0 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >50 1 Copper ppm ASTM D5185m >10 <1 Vanadium ppm ASTM D5185m 0 <th> history2</th>	history2
Machine Age hrs Client Info 821 Oil Age hrs Client Info 326 Oil Changed Client Info Changed Sample Status ABNORMAL WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >50 0 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >50 1 Copper ppm ASTM D5185m >10 <1	history2
Oil Age hrs Client Info 326 Oil Changed Client Info Changed Sample Status Method limit/base current history1 Iron ppm ASTM D5185m >50 0 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Titanium ppm ASTM D5185m >2 0 Silver ppm ASTM D5185m >10 0 Aluminum ppm ASTM D5185m >10 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >0 1 Vanadium ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m	history2
Oil Changed Sample Status Client Info Changed ABNORMAL WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >50 0 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 1 Copper ppm ASTM D5185m >10 <1	history2
Sample Status	history2
WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >50 0 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 <1	history2
Iron	
Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >50 1 Copper ppm ASTM D5185m >50 1 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 Boron ppm ASTM D5185m 0 <	
Nickel ppm ASTM D5185m >3 0 Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >50 1 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 0	
Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >50 1 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 0 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 <1	
Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >50 1 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 7 Barium ppm ASTM D5185m 0 0 Magnaese ppm ASTM D5185m 0 46 Magnesium ppm ASTM D5185m 0 2 <th< td=""><td></td></th<>	
Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >50 1 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 7 Molybdenum ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 46 Magnesium ppm ASTM D5185m 0 2 Phosphorus ppm ASTM D5185m 0 14 Sulfur ppm ASTM D5185m 23500	
Lead	
Copper ppm ASTM D5185m >50 1 Tin ppm ASTM D5185m >10 <1	
Copper ppm ASTM D5185m >50 1 Tin ppm ASTM D5185m >10 <1	
Tin ppm ASTM D5185m >10 <1 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 7 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 100 46 Magnesium ppm ASTM D5185m 0 <1 Phosphorus ppm ASTM D5185m 0 2 Zinc ppm ASTM D5185m 0 14 Sulfur ppm ASTM D5185m 23500 22386 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m <td></td>	
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 7 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m <1	
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 7 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 100 46 Magnesium ppm ASTM D5185m 0 <1	
ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 7 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 100 46 Magnesium ppm ASTM D5185m 0 <1	
Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 7 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 100 46 Magnesium ppm ASTM D5185m 0 <1	la la tarre o
Barium	history2
Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m <1	
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 100 46 Calcium ppm ASTM D5185m 0 <1	
Magnesium ppm ASTM D5185m 100 46 Calcium ppm ASTM D5185m 0 <1	
Calcium ppm ASTM D5185m 0 <1 Phosphorus ppm ASTM D5185m 0 2 Zinc ppm ASTM D5185m 0 14 Sulfur ppm ASTM D5185m 23500 22386 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >25 <1	
Phosphorus ppm ASTM D5185m 0 2 Zinc ppm ASTM D5185m 0 14 Sulfur ppm ASTM D5185m 23500 22386 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >25 <1	
Zinc ppm ASTM D5185m 0 14 Sulfur ppm ASTM D5185m 23500 22386 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >25 <1	
Sulfur ppm ASTM D5185m 23500 22386 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >25 <1	
CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >25 <1	
Silicon ppm ASTM D5185m >25 <1	
	history2
Conditions ACTAL DE 10 Feb	
Sodium ppm ASTM D5185m 9	
Potassium ppm ASTM D5185m >20 12	
Water % ASTM D6304 >0.05 ▲ 0.157	
ppm Water ppm ASTM D6304 >500 ▲ 1570	
FLUID CLEANLINESS method limit/base current history1	history2
Particles >4µm ASTM D7647 844	
Particles >6μm ASTM D7647 >1300 460	
Particles >14μm ASTM D7647 >80 78	
Particles >21μm ASTM D7647 >20 26	
Particles >38µm ASTM D7647 >4 4	
Particles >71µm ASTM D7647 >3 0	
Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13	
FLUID DEGRADATION method limit/base current history1	
Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.34	



OIL ANALYSIS REPORT

