

OIL ANALYSIS REPORT

NORMAL

Machine Id

FES TYSDAR 5 (S/N 4011014)

Refrigeration Compressor

USPI ALT-68 SC (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

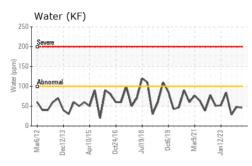
Fluid Condition

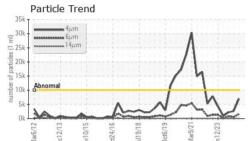
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

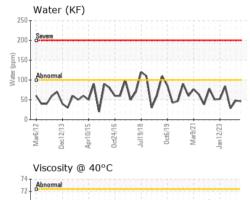
Sample Number Client Info USP0012623 USP0007695 USP000133 Sample Date Client Info 28 May 2024 20 Feb 2024 01 Sep 2023 Machine Age hrs Client Info 125220 123991 121595 Oil Age hrs Client Info 0 0 0 Oil Age hrs Client Info N/A N/A N/A Sample Status Imit/base Current history1 history2 Iron ppm ASTM D5185m >8 9 8 9 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m >2 <1 0 0 Silver ppm ASTM D5185m >2 0 0 0 0 Aluminum ppm ASTM D5185m >2 <1 0 0 0 0 Copper ppm ASTM D5185m >2 <1 <1 0
Machine Age hrs Client Info 125220 123991 121595 Oil Age hrs Client Info 0 0 0 Oil Age hrs Client Info N/A N/A N/A Sample Status Imit/base current history1 history2 Iron ppm ASTM D5185m >8 9 8 9 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m >2 <1 0 0 Silver ppm ASTM D5185m <2 <1 0 0 Aluminum ppm ASTM D5185m <2 0 0 0 Lead ppm ASTM D5185m >2 <1 <1 0 0 Tin ppm ASTM D5185m >2 <1 <1 0 0 Copper ppm ASTM D5185m >2 <1 <1 0 0
Machine Age hrs Client Info 125220 123991 121595 Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Imit/base current history1 history2 Iron ppm ASTM D5185m >8 9 8 9 Chromium ppm ASTM D5185m >8 9 8 9 Chromium ppm ASTM D5185m >8 9 8 9 Nickel ppm ASTM D5185m >2 <1 0 0 1 Silver ppm ASTM D5185m >2 0<
Oil ChangedClient InfoN/AN/AN/ASample StatusClient InfoN/ANORMALNORMALNORMALWEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM D5185m<>8989ChromiumppmASTM D5185m<>2<1
Oil ChangedClient InfoN/AN/AN/ASample StatusImage of the statusImage of the statusNORMALNORMALNORMALWEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM D5185m>8989ChromiumppmASTM D5185m>2<100NickelppmASTM D5185m<10<10SilverppmASTM D5185m>2000AluminumppmASTM D5185m>2000LeadppmASTM D5185m>2<1<10CopperppmASTM D5185m>2<1<10TinppmASTM D5185m>4<1<10VanadiumppmASTM D5185m>4<100CadmiumppmASTM D5185m<1000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m0000BariumppmASTM D5185m0000
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >8 9 8 9 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m <1 0 <1 0 Titanium ppm ASTM D5185m <1 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 0 Lead ppm ASTM D5185m >2 <1 <1 0 0 Copper ppm ASTM D5185m >2 <1 <1 0 0 Vanadium ppm ASTM D5185m >4 <1 <1 0 0 Cadmium ppm ASTM D5185m <4 <1 0 0 0 0 0 <td< th=""></td<>
Iron ppm ASTM D5185m >8 9 8 9 Chromium ppm ASTM D5185m >2 <1
Chromium ppm ASTM D5185m >2 <1
Chromium ppm ASTM D5185m >2 <1
Nickel ppm ASTM D5185m <1
Titanium ppm ASTM D5185m <1
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >3 1 <1 0 0 Lead ppm ASTM D5185m >2 <1 <1 0 0 Copper ppm ASTM D5185m >8 <1 <1 0 0 Tin ppm ASTM D5185m >4 <1 <1 0
Aluminum ppm ASTM D5185m >3 1 <1
Lead ppm ASTM D5185m >2 <1
Copper ppm ASTM D5185m >8 <1
Tin ppm ASTM D5185m >4 <1
VanadiumppmASTM D5185m<1
CadmiumppmASTM D5185m<1
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m000BariumppmASTM D5185m000
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0
Barium ppm ASTM D5185m 0 0 0
The second
Manganese ppm ASTM D5185m 0 <1
Magnesium ppm ASTM D5185m 0 <1
Calcium ppm ASTM D5185m O <1
Phosphorus ppm ASTM D5185m 0 <1
Zinc ppm ASTM D5185m 2 0 0
Sulfur ppm ASTM D5185m 50 0 2 0
CONTAMINANTS method limit/base current history1 history2
Silicon ppm ASTM D5185m >15 1 <1 <1
Sodium ppm ASTM D5185m 0 <1
Potassium ppm ASTM D5185m >20 1 <1
Water % ASTM D6304 >0.01 0.004 0.004 0.003
ppm Water ppm ASTM D6304 >100 46 48 28.5
FLUID CLEANLINESS method limit/base current history1 history2
Particles >4μm ASTM D7647 >10000 6983 2660 2190
Particles >6μm ASTM D7647 >2500 1584 564 777
Particles >14μm ASTM D7647 >320 47 12 42
Particles >21μm ASTM D7647 >80 4 3 4
Particles >38μm ASTM D7647 >20 0 0 0
Particles >71 μ mASTM D7647>4000
Oil Cleanliness ISO 4406 (c) >20/18/15 20/18/13 19/16/11 18/17/13
FLUID DEGRADATION method limit/base current history1 history2
Acid Number (AN) mg KOH/g ASTM D974 0.005 0.014 0.014 0.015

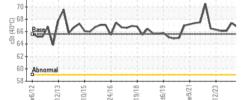


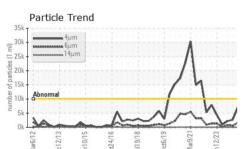
OIL ANALYSIS REPORT



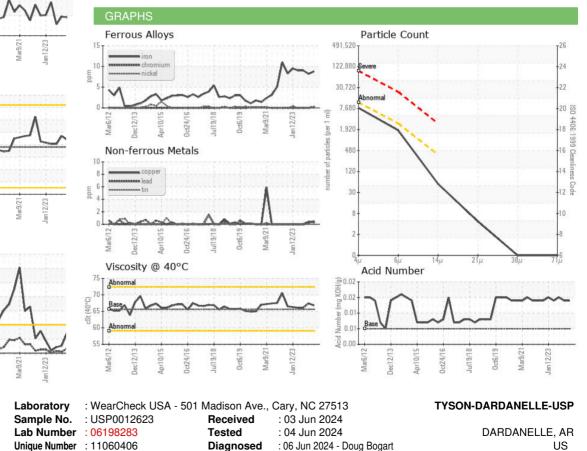












Unique Number : 11060406 Test Package : IND 2 Certificate 12367

- 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)

T: F:

Contact/Location: SERVICE MANAGER - TYSDAR

Contact: SERVICE MANAGER