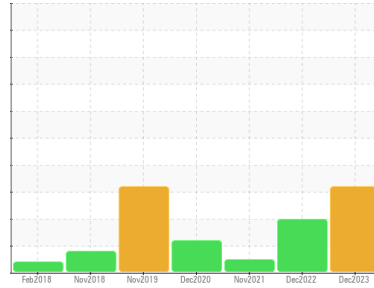




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
GESTION ESC [02606648]
 Machine Id
2007 SKYTRAC 2007 07-41 (S/N 160030936)
 Component
Hydraulic System
 Fluid
PANOLIN HLP SYNTH 46 (--- LTR)

DIAGNOSIS

Recommendation

Nous vous recommandons de vérifier tous les endroits par lesquels des contaminants peuvent pénétrer dans le système. Nous vous recommandons de remplacer le filtre et d'utiliser un système de filtrage hors-ligne afin d'améliorer la propreté du fluide. Le reniflard d'air doit être réparé. S'il n'est pas classé, nous vous recommandons de le remplacer par un reniflard à air adapté au micron et / ou au dessicant. Si évalué, nous vous recommandons de réparer / remplacer le reniflard. Échantillonner de nouveau dans 30 à 45 jours afin de contrôler la situation.

Wear

Les taux d'usure de tous les composants sont normaux.

Contamination

Il y a une quantité élevée de matières particulaires (2 à 100 µm de taille) présente dans l'huile. Il y a une faible concentration (<5.0%) d'huile minérale présente dans le fluide. La teneur en eau est négligeable. Le code de propreté du système est beaucoup plus haut que la limite acceptable pour votre objectif de propreté ISO 4406.

Fluid Condition

Le AN est acceptable pour ce fluide. l'huile peut encore servir si la contamination peut être réduite à un niveau acceptable.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-----------------|--------------------|-------------|-------------|
| Sample Number | Client Info | WC | WC | WC |
| Sample Date | Client Info | 22 Dec 2023 | 08 Dec 2022 | 27 Nov 2021 |
| Machine Age | hrs Client Info | 10491 | 9900 | 8892 |
| Oil Age | hrs Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | SEVERE | SEVERE | NORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Iron | ppm ASTM D5185(m) >20 | 3 | 2 | <1 |
| Chromium | ppm ASTM D5185(m) >10 | <1 | <1 | <1 |
| Nickel | ppm ASTM D5185(m) >10 | 0 | <1 | <1 |
| Titanium | ppm ASTM D5185(m) | 0 | <1 | 0 |
| Silver | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Aluminum | ppm ASTM D5185(m) >10 | <1 | 0 | <1 |
| Lead | ppm ASTM D5185(m) >10 | 0 | 0 | 0 |
| Copper | ppm ASTM D5185(m) >75 | <1 | <1 | <1 |
| Tin | ppm ASTM D5185(m) >10 | 0 | 0 | <1 |
| Antimony | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Vanadium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Beryllium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Cadmium | ppm ASTM D5185(m) | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|------------|------------------------|--------------|----------|----------|
| Boron | ppm ASTM D5185(m) 0 | <1 | 1 | 1 |
| Barium | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Molybdenum | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Manganese | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Magnesium | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Calcium | ppm ASTM D5185(m) 0 | 3 | 2 | 2 |
| Phosphorus | ppm ASTM D5185(m) 1700 | 1414 | 1597 | 1576 |
| Zinc | ppm ASTM D5185(m) 0 | 9 | 9 | 3 |
| Sulfur | ppm ASTM D5185(m) 1350 | 1297 | 1327 | 1379 |
| Lithium | ppm ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

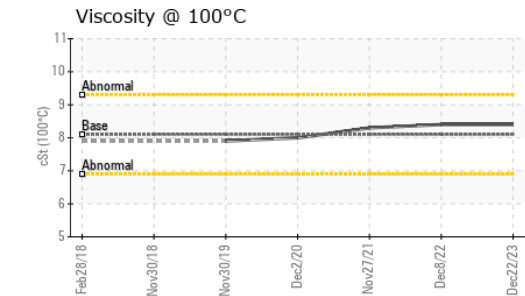
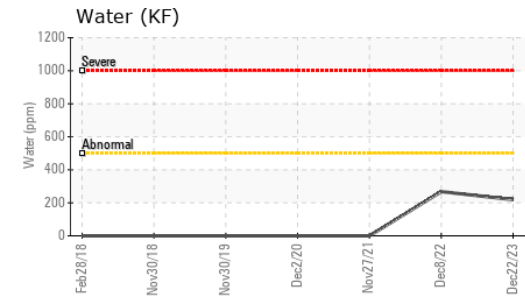
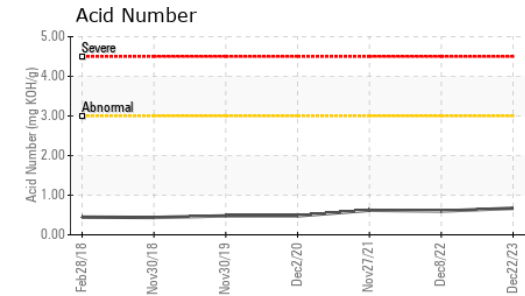
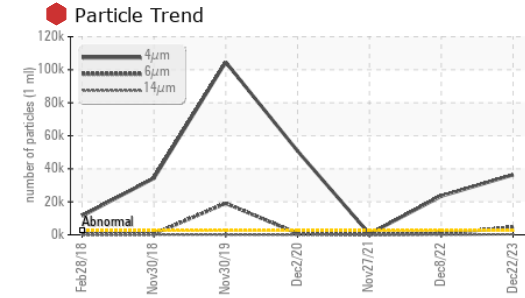
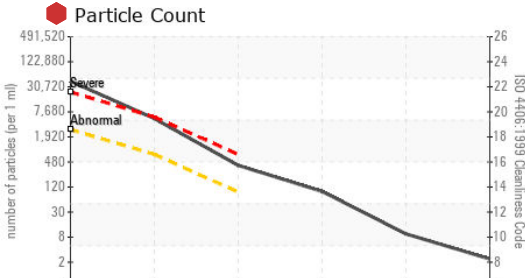
| method | limit/base | current | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Silicon | ppm ASTM D5185(m) >20 | 1 | 1 | <1 |
| Sodium | ppm ASTM D5185(m) | <1 | <1 | <1 |
| Potassium | ppm ASTM D5185(m) >20 | 0 | 0 | <1 |
| Water | % ASTM D6304* >0.05 | 0.021 | 0.026 | --- |
| ppm Water | ppm ASTM D6304* >500 | 219 | 267.8 | --- |

INFRA-RED

| method | limit/base | current | history1 | history2 |
|---------------------|----------------------|----------------|----------|----------|
| Soot % | % ASTM D7844* | 0 | 0 | --- |
| Nitration | Abs/cm ASTM D7624* | 4.0 | 4.2 | --- |
| Sulfation | Abs/.1mm ASTM D7415* | 155.4 | 184.2 | --- |
| Mineral Oil Content | % ASTM D7418* <5.0% | <5.0 | <5.0 | 0.0 |



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02606649
Unique Number : 5707735
Test Package : MOB 2 (Additional Tests: TAN Man)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

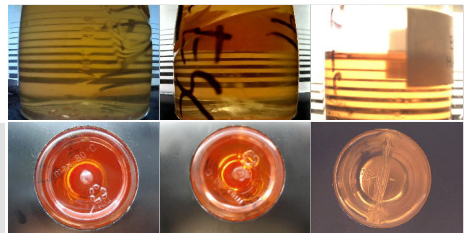
| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|----------|----------|----------|
| Particles >4µm | ASTM D7647 | >2500 | 36353 | 23441 | 543 |
| Particles >6µm | ASTM D7647 | >640 | 4642 | 762 | 93 |
| Particles >14µm | ASTM D7647 | >80 | 350 | 12 | 10 |
| Particles >21µm | ASTM D7647 | >20 | 83 | 5 | 3 |
| Particles >38µm | ASTM D7647 | >4 | 8 | 4 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 2 | 4 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | 22/19/16 | 22/17/11 | 16/14/10 |

| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|---------|----------|----------|
| Oxidation | Abs/.1mm | ASTM D7414* | 151.9 | 158.5 | --- |
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.67 | 0.60 | 0.62 |

| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| 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 | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | NEG | NEG | NEG |
| Free Water | scalar | Visual* | NEG | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 47.0 | 46.1 | 45.6 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 8.1 | 8.4 | 8.3 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 146 | 160 | 159 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color | | | | | |
| Bottom | | | | | |



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 T: (418)623-1216
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MINERAL OIL CONTENT REPORT

PASS

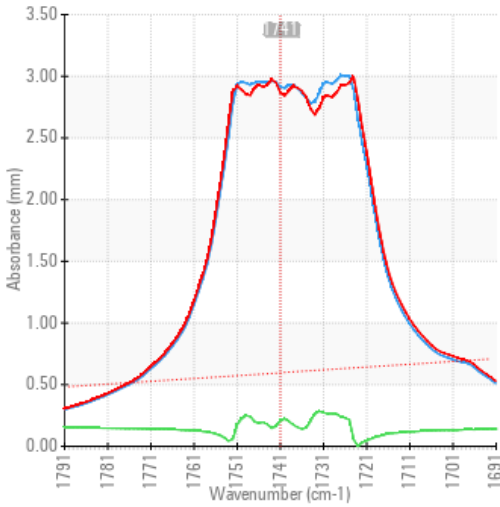


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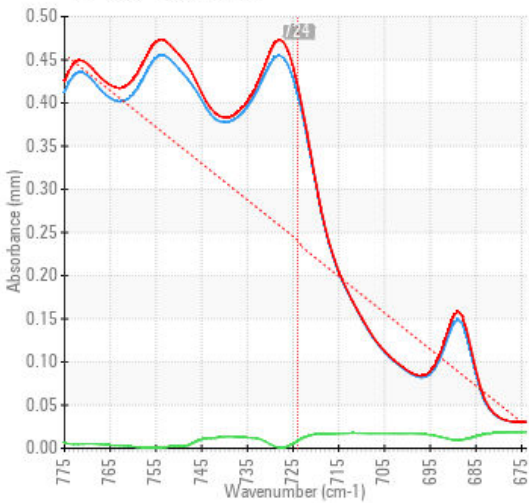
SPECTRAL ANALYSIS

| | | method | limit/base | current | history1 | history2 |
|---------------------|-----|---------------|------------|----------------|----------|----------|
| Zinc | ppm | ASTM D5185(m) | 0 | 9 | 9 | 3 |
| Mineral Oil Content | % | ASTM D7418* | <5.0% | <5.0 | <5.0 | 0.0 |

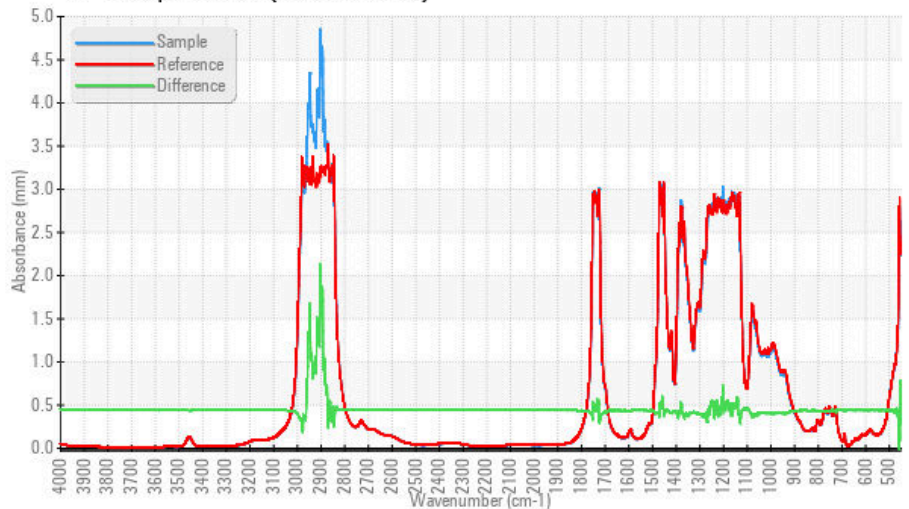
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02606649
Unique Number : 5707735
Test Package : MOB 2 (Additional Tests: TAN Man)
Received : 04 Jan 2024
Diagnosed : 08 Jan 2024
Diagnostician : Bill Quesnel

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