



OIL ANALYSIS REPORT

| | |
|---------------|--------|
| WEAR | NORMAL |
| CONTAMINANTS | NORMAL |
| OIL CONDITION | NORMAL |

Area
(C-FYRG)
Machine Id
[C-FYRG] AUTOGYRO CAVALON 7.683.024
Component
Piston Aircraft Engine
Fluid
SHELL OIL SPORT PLUS 4 (4 LTR)

RECOMMENDATION

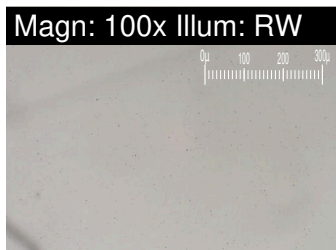
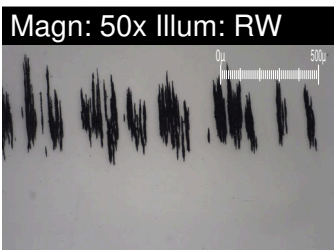
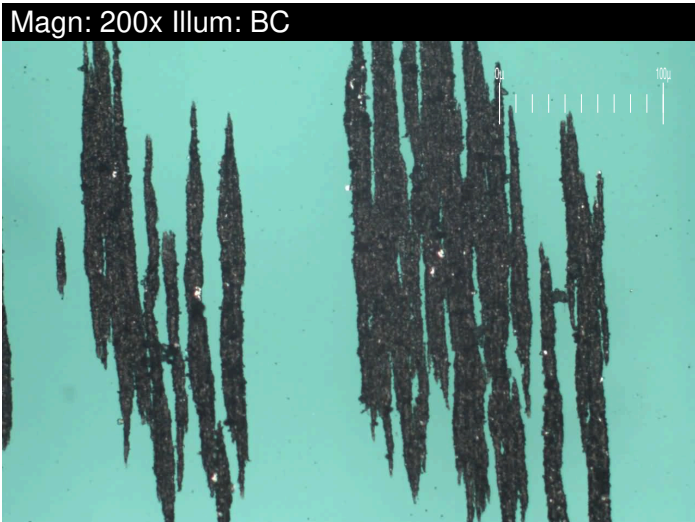
Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | WC0725555 | WC0725525 | --- |
| Sample Date | | Client Info | | 21 Feb 2024 | 13 Mar 2023 | --- |
| TSN | hrs | Client Info | | 505 | 491 | --- |
| TSO | hrs | Client Info | | 505 | 491 | --- |
| Oil Age | hrs | Client Info | | 14 | 16 | --- |
| Filter Age | hrs | Client Info | | 14 | 16 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

| | | | | | | |
|----------------------------|------------|---------------|--------|--------------|------|-----|
| Iron | ppm | ASTM D5185(m) | >260 | 17 | 19 | --- |
| Chromium | ppm | ASTM D5185(m) | >10 | 0 | <1 | --- |
| Nickel | ppm | ASTM D5185(m) | >8 | 2 | 3 | --- |
| Titanium | ppm | ASTM D5185(m) | >4 | 0 | <1 | --- |
| Silver | ppm | ASTM D5185(m) | >2 | <1 | 0 | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | 6 | 5 | --- |
| Lead | ppm | ASTM D5185(m) | >20000 | 1854 | 1851 | --- |
| Copper | ppm | ASTM D5185(m) | >45 | 8 | 11 | --- |
| Tin | ppm | ASTM D5185(m) | >8 | 0 | 0 | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| White Metal | scalar | Visual* | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | --- |
| Large Particles | | DR-Ferr* | | 37.9 | --- | --- |
| Small Particles | | DR-Ferr* | | 26.9 | --- | --- |
| Total Particles | | DR-Ferr* | >--- | 64.8 | --- | --- |
| Large Particles Percentage | % | DR-Ferr* | | 17 | --- | --- |
| Severity Index | | DR-Ferr* | | 417 | --- | --- |
| Ferrous Rubbing | Scale 0-10 | ASTM D7684* | | 4 | | |
| Ferrous Sliding | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Cutting | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Rolling | Scale 0-10 | ASTM D7684* | | 2 | | |
| Ferrous Break-in | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Spheres | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Black Oxides | Scale 0-10 | ASTM D7684* | | 1 | | |
| Ferrous Red Oxides | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Corrosive | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Other | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Rubbing | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Sliding | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Cutting | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Rolling | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Other | Scale 0-10 | ASTM D7684* | | | | |



CONTAMINANTS

There is no indication of any contamination in the oil.

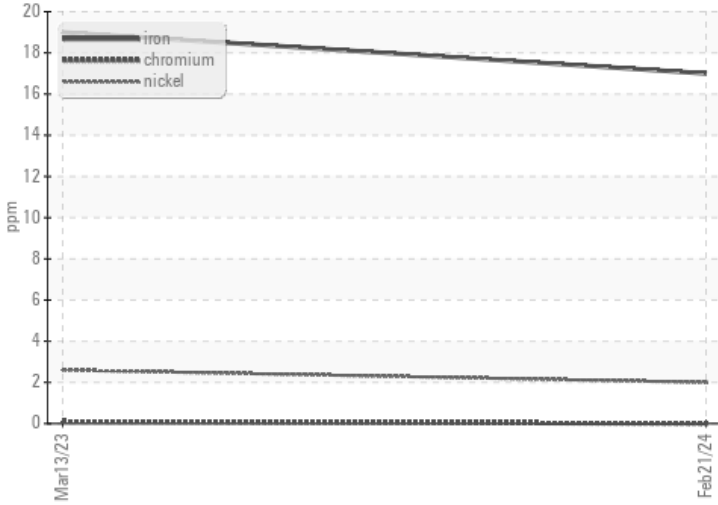
| | | | | | | |
|-----------------------|------------|---------------|-------|----------------|-------|-----|
| Silicon | ppm | ASTM D5185(m) | >35 | 11 | 11 | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 1 | 2 | --- |
| Fuel | | WC Method | >4.0 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.1 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Silt | scalar | Visual* | NONE | VLITE | 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* | >0.1 | NEG | NEG | --- |
| Carbonaceous Material | Scale 0-10 | ASTM D7684* | | | | |
| Sand/Dirt | Scale 0-10 | ASTM D7684* | | | | |
| Fibres | Scale 0-10 | ASTM D7684* | | | | |
| Spheres | Scale 0-10 | ASTM D7684* | | | | |
| Other | Scale 0-10 | ASTM D7684* | | 1 | | |

OIL CONDITION

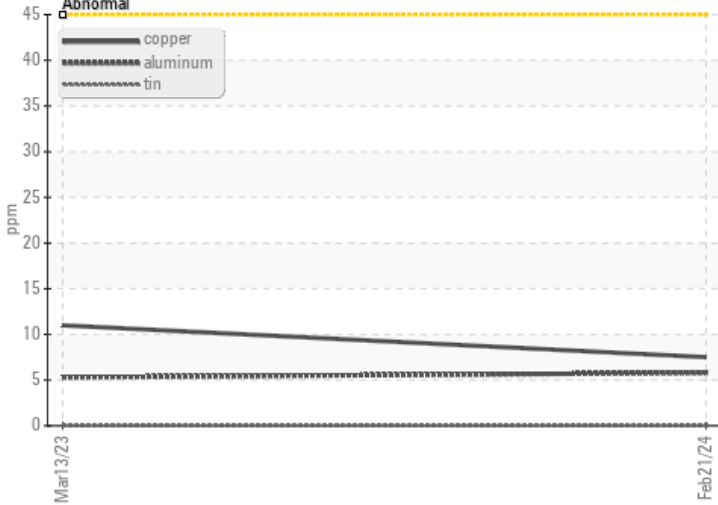
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| | | | | | | |
|-----------------------|------------|---------------|-------|--------------|------|-----|
| Sodium | ppm | ASTM D5185(m) | | <1 | 2 | --- |
| Boron | ppm | ASTM D5185(m) | | 65 | 68 | --- |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185(m) | | <1 | 2 | --- |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Magnesium | ppm | ASTM D5185(m) | | 17 | 20 | --- |
| Calcium | ppm | ASTM D5185(m) | | 2777 | 2880 | --- |
| Phosphorus | ppm | ASTM D5185(m) | | 1633 | 1729 | --- |
| Zinc | ppm | ASTM D5185(m) | | 1931 | 1970 | --- |
| Sulfur | ppm | ASTM D5185(m) | | 4803 | 4559 | --- |
| Acid Number (AN) | mg KOH/g | ASTM D974* | | 2.53 | --- | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.46 | 13.3 | 13.3 | --- |
| Lubricant Degradation | Scale 0-10 | ASTM D7684* | | | | |

Ferrous Alloys



Copper/Aluminum/Tin



Viscosity @ 100°C



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : WC0725555

Lab Number : 02618331

Unique Number : 5735441

Test Package : AVI 3

Received : 27 Feb 2024

Tested : 04 Mar 2024

Diagnosed : 04 Mar 2024 - Kevin Marson

GENERAL AIRSPRAY LTD.

6375 AIRPORT DRIVE, R.R. #1

LUCAN, ON

CA N0M 2J0

Contact: Paul Hodgins

genairspray@hotmail.com

T: (519)227-4091

F: (519)227-1588

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.

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