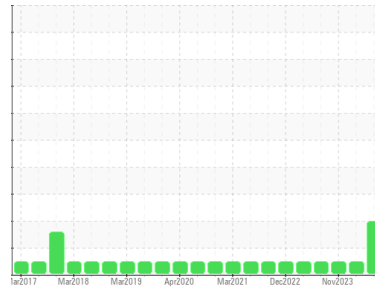




OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Area

(C-GDHF)

Machine Id

[C-GDHF] BEECH B200 PCE93213

Component

Right Jet Turbine

Fluid

EASTMAN TURBO OIL 2380 (12 QTS)

DIAGNOSIS

Recommendation

We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Tin ppm levels are abnormal. Light concentration of visible metal present. Bearing and/or gear wear is indicated. The ferrography results are normal indicating no abnormal wear in the system.

Contaminants

The water content is negligible. There is no indication of any contamination in the oil.

Oil Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0957300	WC0911740	WC0866213
Sample Date	Client Info		05 Jul 2024	02 Mar 2024	18 Nov 2023
TSN	hrs	Client Info	5718	20807	20614
TSO	hrs	Client Info	2346	4720	4524
Oil Age	hrs	Client Info	2006	1401	1208
Oil Changed		Client Info	N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >8	0	0	0
Chromium	ppm	ASTM D5185(m) >2	0	0	0
Nickel	ppm	ASTM D5185(m) >2	<1	0	0
Titanium	ppm	ASTM D5185(m) >2	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	0	<1
Aluminum	ppm	ASTM D5185(m) >2	<1	<1	<1
Lead	ppm	ASTM D5185(m) >3	0	<1	<1
Copper	ppm	ASTM D5185(m) >3	<1	<1	<1
Tin	ppm	ASTM D5185(m) >2	▲ 2	0	0
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	0	<1
Barium	ppm	ASTM D5185(m) 0	0	0	<1
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	0	<1	0
Calcium	ppm	ASTM D5185(m) 0	0	0	<1
Phosphorus	ppm	ASTM D5185(m) 2500	2619	2642	2603
Zinc	ppm	ASTM D5185(m) 0	<1	<1	1
Sulfur	ppm	ASTM D5185(m) 0	4	0	3
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

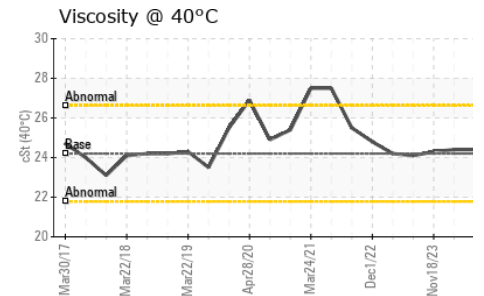
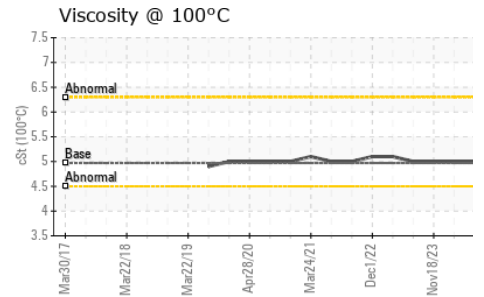
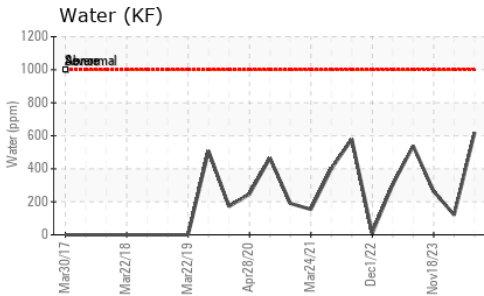
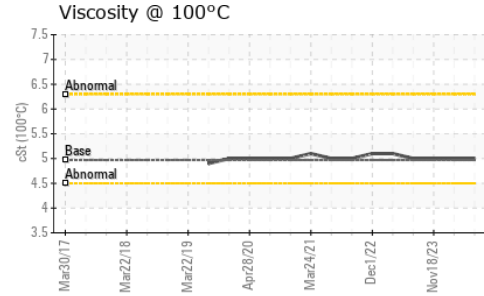
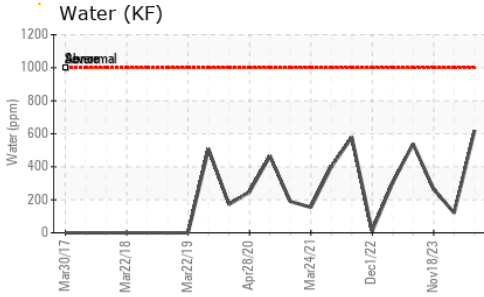
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >8	1	5	4
Sodium	ppm	ASTM D5185(m)	0	0	<1
Potassium	ppm	ASTM D5185(m) >20	0	1	0
Water	%	ASTM D6304* >.1001	0.061	0.012	0.026
ppm Water	ppm	ASTM D6304* >1001	619	120	264

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.43	0.33	0.33	0.29



OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	VLITE
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*	>.1001	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	24.2	24.4	24.3
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	5.0	5
Viscosity Index (VI)	Scale	ASTM D2270*	134	134	135

SAMPLE IMAGES

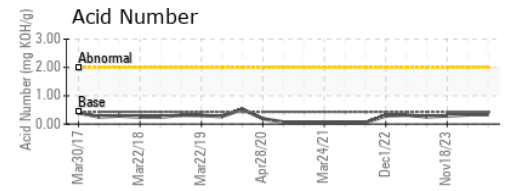
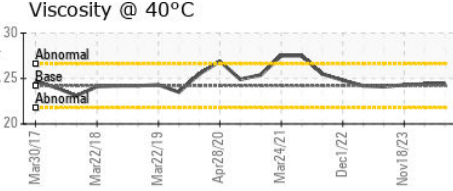
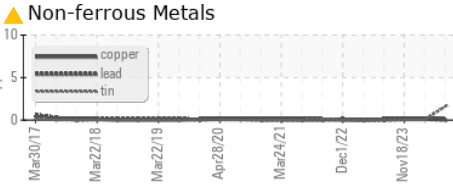
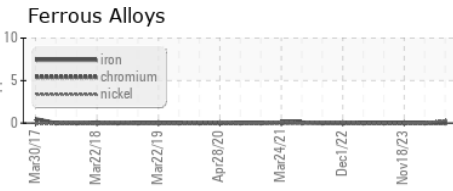
Color

Bottom

PrtFilter

no image no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0957300
Lab Number : 02647625
Unique Number : 5813177
Test Package : AVI 3 (Additional Tests: Bottom, BottomAnalysis, FILTERPATCH)

Received : 12 Jul 2024
Tested : 19 Jul 2024
Diagnosed : 19 Jul 2024 - Kevin Marson

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.

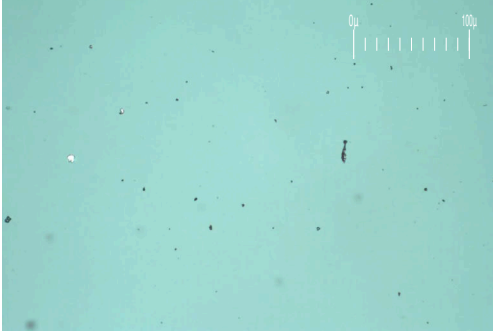
FAST AIR LTD
 80 HANGAR LINE ROAD
 WINNIPEG, MB
 CA R3J 3Y7
 Contact: Denis Bourgouin
 denis.bourgouin@flyfastair.com
 T: (204)772-7622
 F: (204)783-2483



FERROGRAPHY REPORT

Area
(C-GDHF)
 Machine Id
[C-GDHF] BEECH B200 PCE93213
 Component
Right Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (12 QTS)

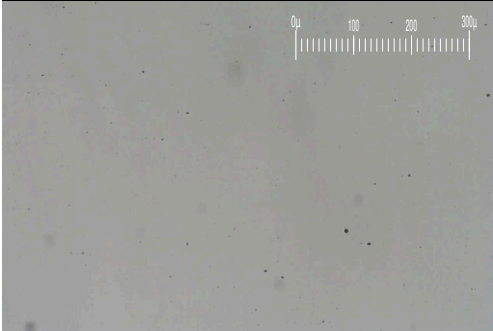
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW

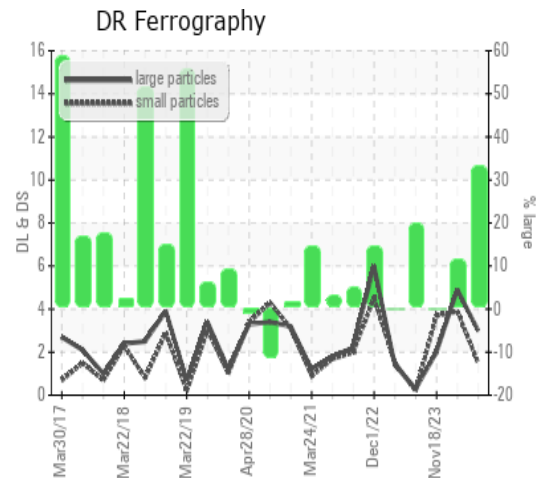


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		3.0	4.9	2.0
Small Particles		DR-Ferr*		1.5	3.9	3.7
Total Particles		DR-Ferr*	>---	4.5	8.8	5.7
Large Particles Percentage	%	DR-Ferr*		33.3	11.4	0
Severity Index		DR-Ferr*		5	5	3

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		1	1	1
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		1	1	
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*				
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*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		1	1	1
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1	1	1

WEAR

Tin ppm levels are abnormal. Light concentration of visible metal present. Bearing and/or gear wear is indicated. The ferrography results are normal indicating no abnormal wear in the system.



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