

OIL ANALYSIS REPORT

Area (C-FKEX) [C-FKEX] BEECHCRAFT KING AIR 200 PCE-93934

Component **Right Jet Turbine**

EASTMAN TURBO OIL 2380 (12 QTS)

Recommendation

Resample at the next service interval to monitor.

Wear

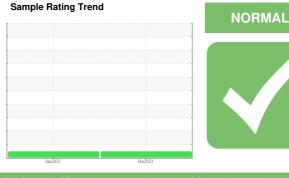
All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

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 condition of the oil is suitable for further service.

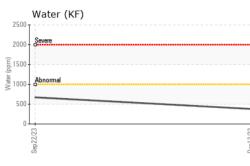


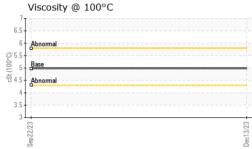


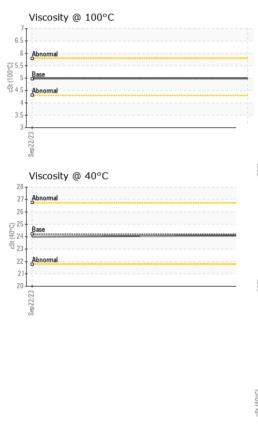
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0818471	WC0850514	
Sample Date		Client Info		13 Dec 2023	22 Sep 2023	
TSN	hrs	Client Info		22628	22431	
TSO	hrs	Client Info		583	357	
Oil Age	hrs	Client Info		583	0	
Oil Changed		Client Info		Not Changd	N/A	
Sample Status				NORMAL	NORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>8	0	0	
Chromium	ppm	ASTM D5185(m)	>2	0	0	
Nickel	ppm	ASTM D5185(m)	>2	<1	0	
Titanium	ppm	ASTM D5185(m)	>2	0	0	
Silver	ppm	ASTM D5185(m)	>2	<1	<1	
Aluminum	ppm	ASTM D5185(m)	>2	0	0	
Lead	ppm	ASTM D5185(m)	>3	<1	<1	
Copper	ppm	ASTM D5185(m)	>3	<1	<1	
Tin	ppm	ASTM D5185(m)	>2	0	0	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1	<1	
Barium	ppm	ASTM D5185(m)	0	<1	<1	
Molybdenum	ppm	ASTM D5185(m)	0	0	0	
Manganese	ppm	ASTM D5185(m)		0	0	
Magnesium	ppm	ASTM D5185(m)	0	0	0	
Calcium	ppm	ASTM D5185(m)	0	<1	0	
Phosphorus	ppm	ASTM D5185(m)	2500	2675	2656	
Zinc	ppm	ASTM D5185(m)	0	<1	<1	
Sulfur	ppm	ASTM D5185(m)	0	4	4	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>8	0	<1	
Sodium	ppm	ASTM D5185(m)		<1	<1	
Potassium	ppm	ASTM D5185(m)	>20	0	0	
Water	%	ASTM D6304*	>0.1	0.038	0.067	
ppm Water	ppm	ASTM D6304*	>1000	380	672.7	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.43	0.51	0.38	



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	VISUAL		method	limit/ba	se 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	VLITE	
	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Dec13/23	Appearance	scalar	Visual*	NORML	NORML	NORML	
Dec1	Odor	scalar	Visual*	NORML	NORML	NORML	
	Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	
	Free Water	scalar	Visual*		NEG	NEG	
	FLUID PROPE	RTIES	method	limit/ba	se current	history1	history2
	Visc @ 40°C	cSt	ASTM D7279(m)	24.2	24.1	24.0	
	Visc @ 100°C	cSt	ASTM D7279(m)		5	5	
	Viscosity Index (V		ASTM D2270*	134	137	138	
	SAMPLE IMAG		method	limit/ba		history1	history2
Dec13/23 -			method	mmuua			Thistoryz
Der	Color						no image
	00.0						
	Bottom						no image
					2.00		
	GRAPHS						
	Ferrous Alloys						
	10 _T						
	8 iron						
	E 6 A						
	2						
	sep22/23			Dec13/23 -			
	Sep 2			Dec1			
	Non-ferrous Me	tals					
	E 4						
	2						
				23			
	Sep 22/23			Dec13/23			
	∽ Viscosity @ 40ª	C					
					Acid Numbe	r	
	26 Abnormal			HUX	0.48 - Base		
	26 - Base 24 - Base 24 - Abnormal				B 0.60 B 0.46 B 0.36 B 0.24 0.12		
10	3 22 Abnormal			adm	0.24		
				N P5	2 0.12 2 0.00		
	20			23			
	Sep 22/23			Dec13/23	Sep22/23		
rotory	· WaarChaak C9	1175 1001	by Line Pur	lington O		K	owatin Air I
pratory	: WearCheck - C8- : WC0818471	Recieve		Dec 2023			ewatin Air L Morberg Wa
Number	: 02604109	Diagnos		Dec 2023		50	Winnipeg, N
ue Number	: 5697194	Diagnos		in Marsor			CA R3H 0A
Package	: AVI 3	0.00	-				eather Karava
	contact Customer Se	ervice at 1-8	300-268-213	1.		hkaravas@	keewatinair.
	of accreditation, (m)						(204)888-010
d internreta	ition are based on th	na camnla a	and informati	nn ac cuni	nlied	E٠	(204)888-579

To discuss this sample rep 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.

CALA

ISO 17025:2017 Accredited Laboratory

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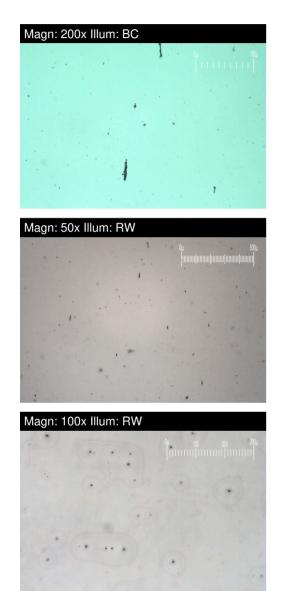
F: (204)888-5791

FERROGRAPHY REPORT

Area (C-FKEX) Machine Id [C-FKEX] BEECHCRAFT KING AIR 200 PCE-93934 Component

Right Jet Turbine

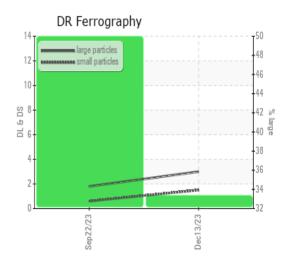
EASTMAN TURBO OIL 2380 (12 QTS)



DR-FERROGRAP	ΉY	method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		3.0	1.8	
Small Particles		DR-Ferr*		1.5	0.6	
Total Particles		DR-Ferr*	>	4.5	2.4	
Large Particles Percentage	%	DR-Ferr*		33.3	50	
Severity Index		DR-Ferr*		5	2	
FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		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	
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1	1	

WEAF

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



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