

OIL ANALYSIS REPORT

Sample Rating Trend







ALSTOM PCI2027

4 Gearbox Fluid TOTAL CARTER SH 220 (--- 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.

Fluid Condition

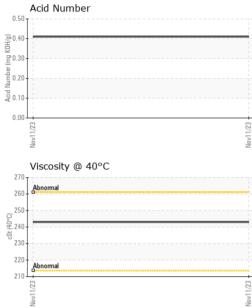
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0798910		
Sample Date		Client Info		11 Nov 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	139		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	2		
Lead	ppm	ASTM D5185m	>50	4		
Copper	ppm	ASTM D5185m	>200	64		
Tin	ppm	ASTM D5185m	>10	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		2		
Magnesium	ppm	ASTM D5185m		0		
Calcium	ppm	ASTM D5185m		0		
Phosphorus	ppm	ASTM D5185m		380		
Zinc	ppm	ASTM D5185m		119		
Sulfur	ppm	ASTM D5185m		3850		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	17		
Sodium	ppm	ASTM D5185m		41		
Potassium	ppm	ASTM D5185m	>20	1		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.41		



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VISUAL



							history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris				NONE		
		scalar	*Visual	NONE	-		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance Odor	scalar	*Visual	NORML	NORML		
- North	2 Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPER		method	limit/base	current	history1	history2
				IIIIII/Dase		Thistory	THSTOLYZ
	Visc @ 40°C	cSt	ASTM D445		243		
	SAMPLE IMAGE	S	method	limit/base	current	history1	history2
	+ 						
10 F	Color				no image	no image	no image
No.	ōN N						
	Dettem						
	Bottom				no image	no image	no image
	GRAPHS						
	Iron (ppm)				Lead (ppm)		
	600 Januar			20			
	e 400 200 Abnormal			틆 10	0		
				-	Aprilonnia		
	1/23			/23 -	1/23		ç
	Nov11,			Nov11/23	Nov11,		6 6 9 9
	Z Aluminum (ppm)			-	Z Chromium (p	nm)	
	100			3	⁰ T Severe	P	
	E 50			u 2 d	0		
	Abnormal			81	0 - Abnormal		
				53			2
	711/2			Nov11/23	ov11/23		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	N			No	No		2
	Copper (ppm)				Silicon (ppm)		
	Courses				0 of the t		
	400 Abnormal				Abnormal		
				-			
	11/23			Nov11/23	Nov11/23		
	Nov1			Nov	Nov		1
	Viscosity @ 40°C			(B/H	Acid Number		
	200 Abnormal			9.0 (mper (mg K0H/d) 2.0 Number (mg K0H/d)			
	₹ ²⁵⁰ - -			20.4 20.2	0 -		
	성 Abnormal 200						
	11/23			Acid	11/23		541
	Nov11/23			Nov11/23 Aci	Nov11/23		COLUMN COLUMN
Laboratory Sample No. Lab Number Unique Number Test Package	r : 06011608 er : 10750752	Received Diagnos Diagnosi	d : 17 ed : 20	ry, NC 2751 Nov 2023 Nov 2023 s Davis		REET NE, HIGH SPEI WAS Contact: MICH michael.porte	HINGTON, DOUS 2001



Contact/Location: MICHAEL PORTER - AMTRAK