

OIL ANALYSIS REPORT

Sample Rating Trend







ALSTOM PCI2027

Component 2 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	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0798913		
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	N	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	183		
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	4		
Lead	ppm	ASTM D5185m	>50	3		
Copper	ppm	ASTM D5185m	>200	50		
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		362		
Zinc	ppm	ASTM D5185m		123		
Sulfur	ppm	ASTM D5185m		3137		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	21		
Sodium	ppm	ASTM D5185m		21		
Potassium	ppm	ASTM D5185m	>20	1		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.38		



220

210 Nov11/23

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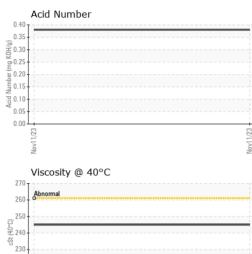
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Abnormal

OIL ANALYSIS REPORT

VISUAL



							,			
	White Metal	scalar *	Visual	NONE	NONE					
	Yellow Metal	scalar *	Visual	NONE	NONE					
	Precipitate		Visual	NONE	NONE					
	Silt		Visual	NONE	NONE					
	Debris		Visual	NONE	NONE					
	Sand/Dirt		Visual	NONE	NONE					
23 -			Visual	NORML	NORML					
Nov11/23	Appearance									
N	Odor		Visual	NORML	NORML					
	Emulsified Water		Visual	>0.2	NEG					
	Free Water	scalar *	Visual		NEG					
	FLUID PROPERT	IES	method	limit/base	current	history1	history2			
	Visc @ 40°C	cSt A	ASTM D445		245					
	SAMPLE IMAGES	5	method	limit/base	current	history1	history2			
				[
Nov11/23 +	Color				no image	no image	no image			
Nov										
	Bottom				no imago	no imago	no imeno			
	Bottom				no image	no image	no image			
	GRAPHS									
	Iron (ppm)				Lead (ppm)					
	⁰⁰ L			20						
ظ 2	00 - Aevere Abnormal			튵 10	o - T					
⁻ 2					Q					
	23+0				/3					
	Nov11/23			Nov11/23	Nov11/23					
	≥ Aluminum (ppm)			2		nm)	:			
1	00			3	Chromium (p) hui)				
E	Severe			E 2						
шd	Abnormal			e ² 1	D - Abnormal					
	0									
	Nov11/23			Nov11/23	Nov11/23					
	—			Nov			-			
-	Copper (ppm)				Silicon (ppm)					
	00 Severe			15	Severe					
ظ ₂	00 - d Abnormal			E ¹⁰	Abnormal					
-2	0									
							c C			
	Nov11/23			Nov11/23	Nov11/23					
	Viscosity @ 40°C				Acid Number					
	Abnormal			723 Acid Number (mg K0H/g)						
(D=0+) 150	50 - Abnorm-1			0.2 g	0					
	0017			Np 0.0						
	Nov11/23			Nov11/23 Acio	Nov11/23		CC 11.11			
	Novi			Nov	Nov					
	: WearCheck USA - 5	501 Madiso	n Ave., Ca	ry, NC 2751	3		AMTRA			
Laboratory		Received	: 17 1	Nov 2023		TREET NE, HIGH SPEE				
Sample No.	Lab Number : 06011609 Diagnosed : 20 Nov 2023						WASHINGTON, DO			
Sample No. Lab Number	: 06011609			US 2001						
Sample No. Lab Number Unique Number	: 06011609 I : 10750753 I	Diagnostic		s Davis						
Sample No. Lab Number Unique Number Test Package	: 06011609 I : 10750753 I : MOB 2	Diagnostic	ian :We			Contact: MICH	HAEL PORTE			
Sample No. Lab Number Unique Number	: 06011609 I : 10750753 I : MOB 2 ontact Customer Servi	Diagnostic	ian :Wes 0-237-1369).		michael.porte				

Contact/Location: MICHAEL PORTER - AMTRAK