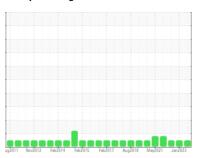


OIL ANALYSIS REPORT

Sample Rating Trend







ALSTOM R150

Component

Gearbox

TOTAL CARTER SH 220 (3 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.

		ug2011 Novi	012 Feb2014 Feb2015	Feb2017 Aug2018 May2021	Jan2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0781720	WC0673270	WC0592319
Sample Date		Client Info		02 Aug 2023	28 Jan 2023	13 May 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	173	142	90
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	2	<1
Lead	ppm	ASTM D5185m	>50	3	1	<1
Copper	ppm	ASTM D5185m	>200	42	32	30
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m	>5			
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	3	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		2	2	0
Magnesium	ppm	ASTM D5185m		2	1	0
Calcium	ppm	ASTM D5185m		3	4	0
Phosphorus	ppm	ASTM D5185m		387	314	328
Zinc	ppm	ASTM D5185m		91	66	61
Sulfur	ppm	ASTM D5185m		4496	3468	3632
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	16	14	9
Sodium	ppm	ASTM D5185m		26	23	23
Potassium	ppm	ASTM D5185m	>20	3	<1	0
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.50	0.46	0.44
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

MICHAEL PORTERNEWITRAK

NEG

scalar *Visual



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number Unique Number Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0781720 : 05924454 : 10604401

Received : 14 Aug 2023 : 16 Aug 2023 Diagnosed : Doug Bogart Diagnostician

AMTRAK 1401 W STREET NE, HIGH SPEED RAIL 2ND FLOOR WASHINGTON, DC

US 20018 Contact: MICHAEL PORTER

michael.porter@amtrak.com T: (202)870-1399

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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