

OIL ANALYSIS REPORT

Area [603876683 SDR] L-3 CARMEL COOLING WHEEL (S/N 20065190) Component

Gearbox

Fluid GEAR OIL ISO 150 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

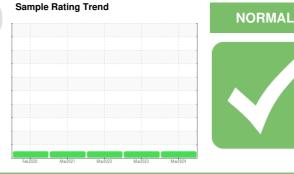
All component wear rates are normal.

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		WC0854421	WC0605566	WC0605201
Sample Date		Client Info		18 Mar 2024	13 Mar 2023	12 Mar 2022
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	7	0	23
Chromium	ppm	ASTM D5185m	>15	0	0	<1
Nickel	ppm	ASTM D5185m	>15	0	<1	5
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	<1	<1
Lead	ppm	ASTM D5185m	>100	0	0	1
Copper	ppm	ASTM D5185m	>200	0	0	<1
Tin	ppm	ASTM D5185m	>25	0	<1	<1
Antimony	ppm	ASTM D5185m	>5			
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	0	0	0
Barium	ppm	ASTM D5185m	15	0	0	0
Molybdenum	ppm	ASTM D5185m	15	0	0	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	50	0	<1	2
Calcium	ppm	ASTM D5185m	50	1	<1	5
Phosphorus	ppm	ASTM D5185m	350	179	195	258
Zinc	ppm	ASTM D5185m	100	0	0	0
Sulfur	ppm	ASTM D5185m	12500	2100	1597	1757
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<1	6	2
Sodium	ppm	ASTM D5185m		0	0	4
Potassium	ppm	ASTM D5185m	>20	0	<1	6
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	0.69	0.70	0.82



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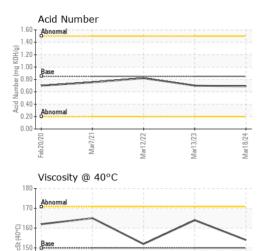
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Feb20/20

Abnormal

Mar7/21

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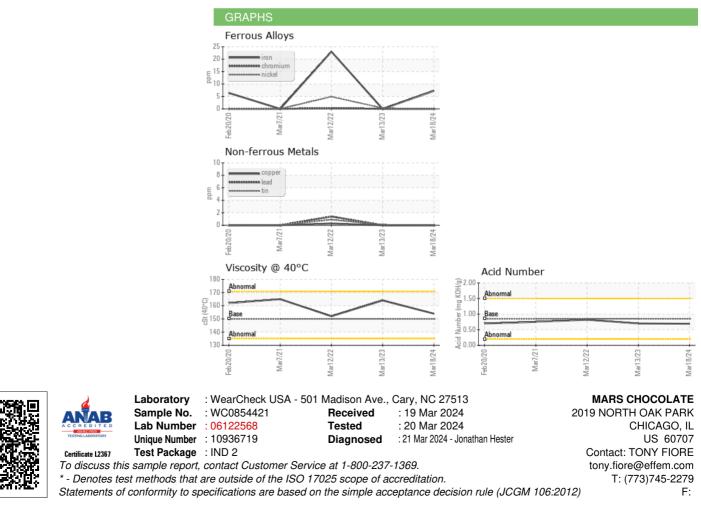


Mar12/22

Mar13/23

Mar18/24

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	150	154	164	152
SAMPLE IMAGES	;	method	limit/base	current	history1	history2
SAMPLE IMAGES	6	method	limit/base	current	history1	history2



Contact/Location: TONY FIORE - MARSCHI