

OIL ANALYSIS REPORT

Sample Rating Trend



Cumberland 150

Gearbox Fluid GEAR OIL ISO 150 (--- 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.

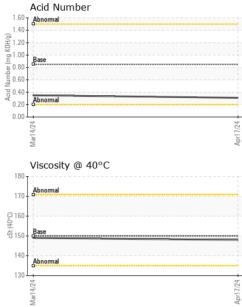
Fluid Condition

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

SAMPLE INFORM		method	limit/base	current	history1	history2
			IIIIII/Dase			
Sample Number		Client Info		PCA0122686	PCA0109932	
Sample Date	1	Client Info		17 Apr 2024	14 Mar 2024	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	29	6	
Chromium	ppm	ASTM D5185m	>10	0	0	
Nickel	ppm	ASTM D5185m	>10	0	0	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>25	2	<1	
Lead	ppm	ASTM D5185m	>50	20	8	
Copper	ppm	ASTM D5185m	>200	53	15	
Tin	ppm	ASTM D5185m	>10	5	1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	0	<1	
Barium	ppm	ASTM D5185m	15	0	0	
Molybdenum	ppm	ASTM D5185m	15	0	0	
Manganese	ppm	ASTM D5185m		<1	<1	
Magnesium	ppm	ASTM D5185m	50	2	4	
Calcium	ppm	ASTM D5185m	50	39	27	
Phosphorus	ppm	ASTM D5185m	350	129	151	
Zinc	ppm	ASTM D5185m	100	11	7	
Sulfur	ppm	ASTM D5185m	12500	13077	13213	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	15	5	
Sodium	ppm	ASTM D5185m		<1	<1	
Potassium	ppm	ASTM D5185m	>20	0	2	
FLUID DEGRAD) ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	0.31	0.35	



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	VISUAL		method	limit/base	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	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Appearance Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
				11 11 11			
	FLUID PROP		method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	150	148	149	
	SAMPLE IMA	AGES	method	limit/base	current	history1	history2
	+ Color				no image	no image	no image
	Bottom				no image	no image	no image
	400 Severe Abnormal 400 400 400 400 400 400 400 40	1)		April 7/24	Abnormal +77+1-12PW Chromium (p	pm)	
	50 Severe Abnormal 100 Severe Abnormal 100 100 100 100 100 100 100 10			ud .	0		
	Copper (ppm)			Apr17/24	Silicon (ppm)		
	e 400 - Severe 200 - Abnormal			_	0 - Abnormal		
	Viscosity @ 40°	С		1/24 Apr17/24 Apr17/24 Apr17/24	Acid Number		
	이 160 - Base 정 140 - Abnormal			E 10	Abnormal		
				lumbe	Abnormal		
	120			24 +	24 + 1 00		e c
	Mar14/24			Apr17/24 Aci	Mar14/24		- - -
ING LABORATORY SAMU Lab I Unique Unique Laboratory Test I	ratory : WearCheck USA - ble No. : PCA0122686 Number : 06154617 e Number : 10990040 Package : MOB 2	Recei Teste Diagn	ved : 1 d : 2 osed : 23	9 Apr 2024 2 Apr 2024 3 Apr 2024 - Do	n Baldridge	BORO SAND & STONI 192 PLAIN S NORTH ATTLEBORO, M/ US 0276 Contact: MAINTENANCE	
Denotes test meth	le report, contact Customer Se ods that are outside of the ISC mity to specifications are based) 17025 sco	pe of accred	ditation.	n rule (JCGM 10	maintenance@	⊉borocorp.cor T F
	1: 04/23/2024 18:16:58) Rev: 1	a on the all	ipic accepte			Submitted By:	

Submitted By: MATT MANOLI Page 2 of 2