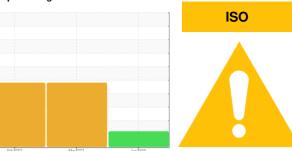


OIL ANALYSIS REPORT



Machine Id

PMC36 Component Gearbox Fluid MOBIL MOBILGEAR SHC 320 (55 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMA	TION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0838828	WC0721683	WC956926
Sample Date		Client Info		06 Jun 2024	01 Mar 2023	28 Feb 2022
	nrs	Client Info		6000	0	0
Ű	hrs	Client Info		6000	6000	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				ABNORMAL	SEVERE	SEVERE
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron p	opm	ASTM D5185(m)	>200	8	7	10
Chromium p	opm	ASTM D5185(m)	>10	0	0	0
Nickel p	opm	ASTM D5185(m)	>10	0	0	<1
Titanium p	opm	ASTM D5185(m)		0	0	0
Silver p	opm	ASTM D5185(m)		0	0	0
Aluminum p	opm	ASTM D5185(m)	>25	<1	<1	<1
Lead p	opm	ASTM D5185(m)	>50	0	0	0
Copper p	opm	ASTM D5185(m)	>200	4	<1	1
Tin p	opm	ASTM D5185(m)	>10	0	0	0
Antimony p	opm	ASTM D5185(m)	>5	0	0	0
Vanadium p	opm	ASTM D5185(m)		0	0	0
Beryllium p	opm	ASTM D5185(m)		0	0	0
Cadmium p	opm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron p	opm	ASTM D5185(m)		<1	<1	<1
Barium p	opm	ASTM D5185(m)		0	0	0
Molybdenum p	opm	ASTM D5185(m)		0	0	0
				•		0
Manganese p	opm	ASTM D5185(m)		0	0	0
•	opm opm	ASTM D5185(m) ASTM D5185(m)		0	0	0
Magnesium p				-		
Magnesium p Calcium p	opm	ASTM D5185(m)		0	0	0
Magnesium p Calcium p Phosphorus p	opm opm	ASTM D5185(m) ASTM D5185(m)		0 <1	0 <1	0
Magnesium p Calcium p Phosphorus p Zinc p	opm opm opm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 409	0 <1 396	0 5 454
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p	opm opm opm opm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 409 2	0 <1 396 1	0 5 454 1
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p	opm opm opm opm opm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 <1 409 2 1656	0 <1 396 1 1600	0 5 454 1 1720
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p	opm opm opm opm opm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >50	0 <1 409 2 1656 1	0 <1 396 1 1600 <1	0 5 454 1 1720 1
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p	opm opm opm opm opm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 409 2 1656 1 current	0 <1 396 1 1600 <1 history1	0 5 454 1 1720 1 history2
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p Sodium p	opm opm opm opm opm opm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m)	>50	0 <1 409 2 1656 1	0 <1 396 1 1600 <1 history1 ▲ 345	0 5 454 1 1720 1 history2 ▲ 144
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p Sodium p	opm opm opm opm opm opm opm opm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>50	0 <1 409 2 1656 1	0 <1 396 1 1600 <1 history1 ▲ 345 3	0 5 454 1 1720 1 history2 ▲ 144 3
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p Sodium p Potassium p FLUID CLEANLINE	opm opm opm opm opm opm opm opm	ASTM D5185(m) ASTM D5185(m)	>50 >20 limit/base >20000	0 <1 409 2 1656 1	0 <1 396 1 1600 <1 history1 ▲ 345 3 0	0 5 454 1 1720 1 history2 ▲ 144 3 <1
Magnesium μ Calcium μ Phosphorus μ Zinc μ Sulfur μ Lithium μ CONTAMINANTS Silicon μ Sodium μ Potassium μ FLUID CLEANLINES Particles >4μm Particles >6μm	opm opm opm opm opm opm opm opm	ASTM D5185(m) ASTM D7647	>50 >20 limit/base >20000 >5000	0 <1 409 2 1656 1 current 45 3 <1 45 33453<1current138524▲ 24503	0 <1 396 1 1600 <1 history1 345 3 0 history1	0 5 454 1 1720 1 history2 ▲ 144 3 <1 history2
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p Sodium p Potassium p FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm	opm opm opm opm opm opm opm opm	ASTM D5185(m) ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640	0 <1 409 2 1656 1	0 <1 396 1 1600 <1 history1 ▲ 345 3 0 history1 	0 5 454 1 1720 1 history2 ▲ 144 3 <1 history2
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p Sodium p Potassium p FLUID CLEANLINE Particles >4µm Particles >14µm Particles >21µm	opm opm opm opm opm opm opm opm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640	0 <1 409 2 1656 1 1 <u>current</u> 45 3 <1 <u>current</u> 138524 ▲ 138524 ▲ 24503 638 139	0 <1 396 1 1600 <1 history1 ▲ 345 3 0 history1 	0 5 454 1 1720 1 history2 ▲ 144 3 <1 history2 history2
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p Sodium p Potassium p FLUID CLEANLINES Particles >4µm Particles >4µm Particles >14µm Particles >21µm Particles >38µm	opm opm opm opm opm opm opm opm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640 >160 >40	0 <1 409 2 1656 1 <i>current</i> 45 3 <1 <i>current</i> 138524 ▲ 24503 638 139 9	0 <1 396 1 1600 <1 history1 ▲ 345 3 0 history1 	0 5 454 1 1720 1 history2 ▲ 144 3 <1 history2
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p Sodium p Potassium p FLUID CLEANLINES Particles >4µm Particles >4µm Particles >14µm Particles >21µm Particles >38µm	opm opm opm opm opm opm opm opm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640 >160 >40	0 <1 409 2 1656 1 <u>current</u> 45 3 <1 <u>current</u> 138524 ▲ 138524 ▲ 138524 ▲ 24503 638 139 9 2	0 <1 396 1 1600 <1	0 5 454 1 1720 1 history2 ▲ 144 3 <1 history2
Magnesium p Calcium p Phosphorus p Zinc p Sulfur p Lithium p CONTAMINANTS Silicon p Sodium p	opm opm opm opm opm opm opm opm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640 >160 >40	0 <1 409 2 1656 1 current 45 3 <1 current 138524 ▲ 138524 ▲ 138524 ▲ 24503 638 139 9 2 2 24/22/16	0 <1 396 1 1600 <1	0 5 454 1 1720 1 history2 ▲ 144 3 <1 history2



A Particle Count

Particle Trend

6µm 14µm

491,520

122,000 (m 30,720 c 1,920 c

> 120k 100k (1 ml) 80k 60k

40k - Abnorma

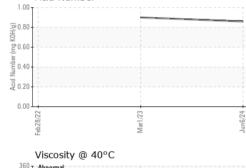
Ok

Feb28/22

Acid Number

OIL ANALYSIS REPORT

FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.86	0.90	
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
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	VLITE	VLITE
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	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	320	327	322	324
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color						

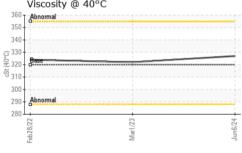


21µ

Mar1/23

14µ

38µ



SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter			no image	no image	*

	CALA	Laboratory	: WearCheck - C8-	DART CANADA		
	Leaved Laboration No. 1006219	Sample No.	: WC0838828	Received	: 10 Jun 2024	2121 MARKHAM RD
	ISO 17025:2017	Lab Number	: 02640866	Tested	: 11 Jun 2024	SCARBOROUGH, ON
	Accredited	Unique Number	: 5798405	Diagnosed	: 11 Jun 2024 - Wes Davis	CA M1B 2W3
	Laboratory Test Package	: MOB 2 (Additional Tests: PrtCount)			Contact: Mike Castro	
HELATAL SIZE	To discuss this sample report, contact Customer Service at 1-800-268-2131.					mike.castro@dartcanada.ca
	Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.					T: (416)293-2877
	Validity of results and interpretation are based on the sample and information as supplied.					

Report Id: DARSCA [WCAMIS] 02640866 (Generated: 06/26/2024 14:23:44) Rev: 1

Contact/Location: Mike Castro - DARSCA Page 2 of 2