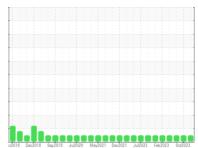


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id 7818 Componen Diesel I Fluid NOT GI

7818
Component
Diesel Engine
Fluid
NOT GIVEN (18 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

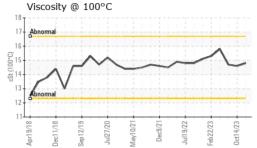
Fluid Condition

The condition of the oil is acceptable for the time in service.

აძი18 De2018 Sep2019 Jul2020 May(021 De2021 Jul2022 Feb2023 Oct0023												
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2						
Sample Number		Client Info		GFL0097533	GFL0097552	GFL0074291						
Sample Date		Client Info		17 Dec 2023	14 Oct 2023	05 Jul 2023						
Machine Age	hrs	Client Info		0	27858	58 26683						
Oil Age	hrs	Client Info		0	591	1093						
Oil Changed		Client Info		N/A	Changed	Changed						
Sample Status				NORMAL	NORMAL	NORMAL						
CONTAMINAT	ION	method	limit/base	current	history1	history2						
Fuel		WC Method	>5	<1.0	<1.0	<1.0						
Water		WC Method	>0.2	NEG	NEG	NEG						
Glycol		WC Method		NEG	NEG	NEG						
WEAR METAL	S	method	limit/base	current	history1	history2						
Iron	ppm	ASTM D5185(m)	>100	14	21	10						
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1						
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1						
Titanium	ppm	ASTM D5185(m)		0	0	0						
Silver	ppm	ASTM D5185(m)	>3	<1	<1	0						
Aluminum	ppm	ASTM D5185(m)	>20	2	2	5						
Lead	ppm	ASTM D5185(m)	>40	<1	<1	0						
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1						
Tin	ppm	ASTM D5185(m)	>15	0	0	0						
Antimony	ppm	ASTM D5185(m)		0	0	0						
Vanadium	ppm	ASTM D5185(m)		0	0	0						
Beryllium	ppm	ASTM D5185(m)		0	0	0						
Cadmium	ppm	ASTM D5185(m)		0	0	0						
ADDITIVES		method	limit/base	current	history1	history2						
Boron	ppm	ASTM D5185(m)		4	6	5						
Barium	ppm	ASTM D5185(m)		<1	<1	0						
Molybdenum	ppm	ASTM D5185(m)		62	62	60						
Manganese	ppm	ASTM D5185(m)		0	0	<1						
Magnesium	ppm	ASTM D5185(m)		987	976	978						
Calcium	ppm	ASTM D5185(m)		1110	1105	1072						
Phosphorus	ppm	ASTM D5185(m)		992	1009	1073						
Zinc	ppm	ASTM D5185(m)		1224	1226	1207						
Sulfur	ppm	ASTM D5185(m)		2455	2448	2573						
Lithium	ppm	ASTM D5185(m)		<1	<1	<1						
CONTAMINAN	TS	method	limit/base	current	history1	history2						
Silicon	ppm	ASTM D5185(m)	>25	4	4	4						
Sodium	Sodium ppm AS			4	5	5						
Potassium	ppm	ASTM D5185(m)	>20	2	4	11						
INFRA-RED		method	limit/base	current	history1	history2						
Soot %	%	ASTM D7844*	>3	0.7	0.7	0.4						
Nitration	Abs/cm	ASTM D7624*	>20	8.5	8.7	7.0						
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.2	20.5	19.5						



OIL ANALYSIS REPORT



FLUID DEGRA	.DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.7	16.1	15.0
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		14.8	14.6	14.7

Visc @ 100°C		cSt ASTM D7279(m)				14.8				14.6			14.7							
	GR	API	-IS																	
250	Iron (ppm)									100	Lea	ıd (pı	om)							
250	Severe									80	Smur	re								
										60										
150- E 100-	Abnor	mal								Ed 40	Abn	ormal								
50										20										
0.	~	\sim				-		_^	~	0										
0	Apr19/18	Dec11/18	Sep12/19-	Jul27/20	May10/21-	Dec9/21-	Jul19/22	Feb22/23	0ct14/23		Apr19/18	Dec11/18	Sep12/19	Jul27/20	May10/21-	Dec9/21-	Jul19/22	Feb22/23	0ct14/23	
					Ma	O	Ju	문	0						Mar	0	Je	문	0	
50	Alun	ninu	m (p	pm)						Chromium (ppm) 50										
40	Severe									40	Seve	re				-		+		
30 -										md 30	+									
20	Abnor	mal								20	Abn	ormal								
10-										10	+++									
0.	91	118	- EL	120	12/0	12/	727	123	13	0	18	18	119	720	1/2/1	1/2/1	722	/23	/23	
	Apr19/18	Dec11/18	Sep12/19	Jul27/20	May10/21	Dec9/21	Jul19/22	Feb22/23	Oct14/23		Apr19/18	Dec11/18	Sep12/19	Jul27/20	May10/21	Dec9/21	Jul19/22	Feb22/23	Oct14/23	
400	Сор	per ((ppm)						80		con (ppm)							
350	Severe Abnor	mal								70	Seve	re								
300 · 250 ·		111								60 50										
돌 200 · 150 ·										摄 40 30										
100										20	-	ormai							+	
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	Apr19/18	Dec11/18	Sep12/19	Jul27/20	May10/21	Dec9/21	Jul19/22	Feb22/23	Oct14/23		Apr19/18	Dec11/18	Sep12/19	Jul27/20	May10/21	Dec9/21	Jul19/22	Feb22/23	0ct14/23	
				.00°C				Œ	0			ot %	Š	~	Σ		7	Œ.	0	
18 ·										6.0										
16	Abnor	mai						_		5.0 4.0	1									
(100°C) 12:			~	^		~~	~		-	\$100 \$13.0	Abn	ormal							-	
정 ¹⁴	Abnor	V								2.0										
12	ADIIO	ındi								1.0	~	_		_	_	\/	\	\nearrow	/	
11-	Apr19/18	Dec11/18	Sep12/19	Jul27/20	May10/21	Dec9/21-	Jul19/22 +	Feb22/23	0ct14/23	0.0	Apr19/18	Dec11/18	Sep12/19	Jul27/20	May10/21	Dec9/21	Jul19/22 +	Feb22/23 -	0ct14/23	
	Aprì	Decl	Sep1	Jul	May	De	Jul	Feb2	Octi		Apr1	Deci	Sep1	Juľ	May	De	Juli	Feb2	Oct1	



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5696802 Test Package : MOB 1

: 02603717

: GFL0097533

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Recieved : 18 Dec 2023 Diagnosed : 18 Dec 2023

Diagnostician : Wes Davis

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

GFL Environmental - 216 15 Bermondsey Road Toronto, ON

CA M4B 1Y9 Contact: Tom Hatzioannidis thatzioannidis@gflenv.com T: (416)678-9340