

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id L315 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 15W40. Please confirm.

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.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0085035		
Sample Date		Client Info		15 May 2024		
Machine Age	mths	Client Info		0		
Oil Age	mths	Client Info		6		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>165	15		
Chromium	ppm	ASTM D5185(m)	>5	<1		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)	>2	0		
Silver	ppm	ASTM D5185(m)	>2	<1		
Aluminum	ppm	ASTM D5185(m)	>20	1		
Lead	ppm	ASTM D5185(m)	>150	3		
Copper	ppm	ASTM D5185(m)	>90	2		
Tin	ppm	ASTM D5185(m)	>5	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	3		
Barium	ppm	ASTM D5185(m)	10	0		
Molybdenum	ppm	ASTM D5185(m)	100	63		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)	450	995		
Calcium	ppm	ASTM D5185(m)	3000	1088		
Phosphorus	ppm	ASTM D5185(m)	1150	1015		
Zinc	ppm	ASTM D5185(m)	1350	1233		
Sulfur	ppm	ASTM D5185(m)	4250	2530		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>35	5		
Sodium	ppm	ASTM D5185(m)	>158	3		
Potassium	ppm	ASTM D5185(m)	>20	<1		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>7.5	1.7		
Nitration	Abs/cm	ASTM D7624*	>20	10.5		
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.1		



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FT-IR (Direct Trend)	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation 30-	Oxidation	Abs/.1mm	ASTM D7414*	>25	18.3		
E 25	VISUAL		method	limit/base	current	history1	history2
g 25 - A onoma	Odor	scalar	Visual*	NORML	NORML		
15	Emulsified Water	scalar	Visual*	>0.2	NEG		
10 - +	Free Water	scalar	Visual*		NEG		
May15/24	FLUID PROPE		method	limit/base	current	history1	history2
Viscosity @ 40°C	Visc @ 40°C Visc @ 100°C	cSt cSt	ASTM D7279(m) ASTM D7279(m)	115 14.4	107 14.2		
140 Abnormal	Viscosity Index (VI)	Scale	ASTM D7279(III) ASTM D2270*	126	134		
130	GRAPHS						
0 110 Base	Iron (ppm)				Lead (ppm)		
³³ 100	250 Severe			300	0		
90 - Abnormal	200 - Abnormal			200			
May15/24 +	Ē 150			톱 150 100			
May ⁱ	50			50			
Viscosity @ 40°C 140 ₁ Abnormal	0			6/24	124		5/24
	May15/24			May15/24	May15/24		May15/24
G ¹²⁰ Base	Aluminum (ppm)			12	Chromium (p	opm)	
0 100 Base	30			10	Severe		
100 -	E 20 - Abnormal			E E	3		
90 Abnormal				d	Abnormal		
May15/24	10			1	2		
Ma A	2/24			5/24	2/24		5/24
	May1			May15/24	May15/24		May15/24
	Copper (ppm)			70			
	150			60 50			
	and a second sec			= 40	Abnormal		
	50+			الم 20			
	0			10)		
	ay15/24 -			May15/24 -	May15/24 -		May15/24 -
	్ Viscosity @ 100°0	_		May	⊵ Soot %		May
	18 T	ں 		10.0			
	17 Abnormal			8.0	- Abnormal		
	0-0015 15- 8			≥ ^e 6.0)		
	13 Abnormal			× 4.(2.0			
	11			0.0			
	May15/24			May15/24	May15/24		May15/24
	Ma			Ma	Ma		Ma
Accredited Unique Number Laboratory Test Package To discuss this sample repor Test denoted (*) outside sco	r : 02642524 r : 5800063 e : MOB 1 (Additional T rt, contact Customer Serv pe of accreditation, (m) n	Recei Teste Diagn ests: KV4 vice at 1-8 nethod mo	ived : 18 d : 18 iosed : 18 0, VI, Visual : 18 00-268-213 : 18 odified, (e) te : 18	3 Jun 2024 3 Jun 2024 4 Jun 2024 - W) 1. 9 sted at extern	les Davis nal lab.	40 TOF T Contact: Ante antonio.rodrigu	T:
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Contact/Location: Antonio Rodrigues - TFSTOR Page 2 of 2