

### **OIL ANALYSIS REPORT**

#### Sample Rating Trend



# KOHLER E-18

#### Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

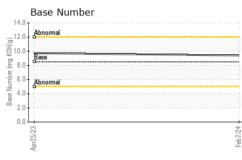
#### Fluid Condition

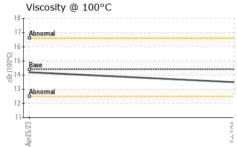
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

			Apr2023	Feb2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info	WC0896259		LP0000240	
Sample Date		Client Info	07 Feb 2024 25 Apr 2023			
Machine Age	hrs	Client Info		0	590	
Oil Age	hrs	Client Info		0	20	
Oil Changed		Client Info		N/A	Not Changd	
Sample Status				NORMAL	NORMAL	
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	000	ASTM D5185m	>100	3	2	
Chromium	ppm	ASTM D5185m		-	_	
Nickel	ppm	ASTM D5185m	>20 >4	0	<1 0	
	ppm		>4	-	-	
Titanium Silver	ppm	ASTM D5185m ASTM D5185m	>3	<1 0	<1 0	
Aluminum	ppm ppm	ASTM D5185m	>3	1	0	
Lead		ASTM D5185m	>20	0	<1	
	ppm	ASTM D5185m	, 10	ں <1	<1	
Copper Tin	ppm	ASTM D5185m	>330	<1	0	
Vanadium	ppm	ASTM D5185m	>15	0	0	
Cadmium	ppm ppm	ASTM D5185m		0	0	
ADDITIVES	ppm	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	19	11	
Barium	ppm	ASTM D5185m	10	0	0	
Molybdenum	ppm	ASTM D5185m	100	57	54 0	
Manganese	ppm	ASTM D5185m	450	<1		
Magnesium	ppm	ASTM D5185m ASTM D5185m	450	851 1147	839	
Calcium Phosphorus	ppm	ASTM D5185m	3000	1034	1042 936	
Zinc	ppm ppm	ASTM D5185m	1150 1350	1034	1139	
Sulfur	ppm	ASTM D5185m	4250	3614	3318	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m	>25 >158	4 <1	4	
Potassium	ppm	ASTM D5185m	>20	<1 <1	<1	
INFRA-RED	ppm	method	limit/base	current	history1	history2
	24					
Soot %	%	*ASTM D7844	>3	0.1	0	
Nitration	Abs/cm	*ASTM D7624 *ASTM D7415		5.3	4.5	
Sulfation	Abs/.1mm		>30	17.3	18.0	
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	13.4	
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.4	9.72	



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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	
Feb7/24	Appearance	scalar	*Visual	NORML	NORML	NORML	
Fer	Odor	scalar	*Visual	NORML	NORML	NORML	
°C	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPERT		method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	14.4	13.5	14.2	
	GRAPHS						
	Ferrous Alloys						
	10 iron						
67 E T T	8 - Research chromium						
<u>.</u>							
	u dd						
	4						
	2						
				Name and Address of the International Address			
	2/23 .			Feb7/24.			
	Apr25/23			Feb			
	Non-ferrous Metal	s					
	10 copper						
	8						
	tin						
	6						
	u dd						
	4						
	2						
	0			24			
	Apr25/23			Feb7/24			
	⊲ Viscosity @ 100°C						
	<sup>18</sup> T	<b>,</b> 		14	Base Numb	er	
	17 Abnormal			12	Abnormal		
	16				T		
	Q <sub>15</sub>			0)HOX Base Number (mg KOH/g)	Base		
	0 15 - Base			8 <u>ت</u>	.0		
	نغ <sup>14</sup>			dmu 6	Abnormal		
	13 Abnormal			<sup>8</sup> 2 4	.0		
	12 -				.0		
	11			0	.0 4		
	Apr25/23			Feb7/24	Apr25/23		Feb 7/24
	Apr			E.	Api		9
Laboratory	WaarChack LIGA 50	1 Madias		NC 07510			
Laboratory Sample No.	: WearCheck USA - 50 : WC0896259	Rece		) Mar 2024		NEW ENGLAND	COLUMBIA RD
Lab Number		Teste		Mar 2024			EMBROKE, MA
TESTING LABORATORY Unique Number			Mar 2024 - V	Ves Davis	US 02359		
Certificate L2367 Test Package	: FLEET		T MATTHEWS				
To discuss this sample report,							egenerator.com
* - Denotes test methods that	are outside of the ISO 1	7025 sco	one of accred	litation		T:	(781)294-8300
Statements of conformity to sp							(701)234-0300 F:

VISUAI method limit/base current history1 history2