

OIL ANALYSIS REPORT

Sample Rating Trend





Area **Ewing Hauling** Machine Id MACK 2573 Component

Diesel Engine

GIBRALTAR 15W/40 SUPER S-3 LX (11)

We enter the he time of at the next Machine Age hrs Client Info 5144 Oil Age hrs Client Info 450 Oil Changed Client Info Changed Oil Changed Client Info Changed Sample Status Imathematical Sta			,			Sep2023		
r, air induction y enter three en time of at the next Sample Date IC Client Info 5144 Oil Age hrs Client Info 5144 Oil Age hrs Client Info 650 Oil Changed Client Info ABNORMAL Sample Status method limit/base current history? Glyco WC Method NEG Chromium ppm ASTM05185m >120 16 Tran ppm ASTM05185m >20 <1 Nickel ppm ASTM05185m >2 <1 Silver ppm ASTM05185m >2 <1 Auminum ppm ASTM05185m >40 2 Auminum ppm ASTM05185m >40 2		SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 5144 Oli Changed hrs Client Info 450 Sample Status I Imit base current History1 History2 Glycol WC Method NEG Velot of silicon WCAR METALS method Imit base current History1 History2 Iron ppm ASTM D5185m >120 16 Othornium ppm ASTM D5185m >20 <1		Sample Number		Client Info		WC0840464		
ing time of at the next Oil Age Sample Status Client Info Sample Status Client Info Client Info Client Info Changed Sample Status Client Info Client Info ABNORMAL Client Info ABNORMA Client Info ABNORMA ABNORMA Client Info ABNORMA	er, air induction	Sample Date		Client Info		29 Sep 2023		
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Oil Changed Sample StatusCilent Info ABNORMALChanged ABNORMALSample Statusmethodlimit/basecurrenthistory!history!history!GlycoWC MethodNEGWEAR METALSmethodlimit/basecurrenthistory!history!IronppmASTM D5185m>10NickelppmASTM D5185m>2<1		Oil Age	hrs	Client Info		450		
CONTAMINATION method limit/base current history1 history2 Glycol WC Method NEG Ton ppm ASTM D5185m >12.0 16 Chromium ppm ASTM D5185m >2.0 <1	at the next	Oil Changed		Client Info		Changed		
Cell of silicon Glycol WC Method Inst Q		Sample Status				ABNORMAL		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5165m >120 16 Chromium ppm ASTM D5165m >20 <1	I.	CONTAMINATION	l	method	limit/base	current	history1	history2
WEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM D5165m>12.016ChromiumppmASTM D5165m>2.0<1	vol of ollicon	Glycol		WC Method		NEG		
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Nickel ppm ASTM D5185m >5 1 Titanium ppm ASTM D5185m >2 <1		Iron	ppm	ASTM D5185m	>120	16		
Titation ppm ASTM D5185m >2 <1	I. The BN result	Chromium	ppm	ASTM D5185m	>20	<1		
Silver ppm ASTM D5185m >2 <1 Aluminum ppm ASTM D5185m >40 2 Lead ppm ASTM D5185m >40 2 Copper ppm ASTM D5185m >330 3 Tin ppm ASTM D5185m 15 <1	ty remaining in	Nickel	ppm	ASTM D5185m	>5	1		
Aluminum ppm ASTM D5185m >20 5 Lead ppm ASTM D5185m >40 2 Copper ppm ASTM D5185m >330 3 Tin ppm ASTM D5185m >15 <1		Titanium	ppm	ASTM D5185m	>2	<1		
Lead ppm ASTM D5185m >40 2 Copper ppm ASTM D5185m >330 3 Tin ppm ASTM D5185m >15 <1		Silver	ppm	ASTM D5185m	>2	<1		
Copper ppm ASTM D5185m >330 3 Tin ppm ASTM D5185m >15 <1		Aluminum	ppm	ASTM D5185m	>20	5		
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Boron ppm ASTM D5185m 2 Barium ppm ASTM D5185m 60 Molybdenum ppm ASTM D5185m 66 23 Manganese ppm ASTM D5185m 1000 331 Magnesium ppm ASTM D5185m 1000 331 Calcium ppm ASTM D5185m 1050 2022 Phosphorus ppm ASTM D5185m 150 1050 Zinc ppm ASTM D5185m 1270 1292 Sulfur ppm ASTM D5185m 1270 1292 Solicon ppm ASTM D5185m >20 105 Sodium ppm ASTM D5185m >20 10 Fuel % ASTM D5185m >20 1.4		Cadmium	ppm	ASTM D5185m		0		
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Soot % % *ASTM D7844 >4 0.2 Nitration Abs/cm *ASTM D7624 >20 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 15.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 9.5		Fuel	%	ASTM D3524	>3.0	1.4		
Nitration Abs/cm *ASTM D7624 >20 5.5 Sulfation Abs/.1mm *ASTM D7615 >30 15.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 9.5		INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm *ASTM D7624 >20 5.5 Sulfation Abs/.1mm *ASTM D7615 >30 15.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 9.5		Soot %	%	*ASTM D7844	>4	0.2		
Sulfation Abs/.1mm *ASTM D7415 >30 15.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 9.5			Abs/cm		>20			
Oxidation Abs/.1mm *ASTM D7414 >25 9.5								
		FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 10.1 8.0		Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5		
		Base Number (BN)		ASTM D2896	10.1	8.0		

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



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