

WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL



Mack FL-30
Component
Diesel Engine

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

GIBITALI ATT 13W/40 COT ETT 0	0 LX ( QA						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0941089		
Resample at the next service interval to monitor.	Sample Date		Client Info		20 Jun 2024		
	Machine Age	hrs	Client Info		16661		
	Oil Age	hrs	Client Info		600		
	Filter Age	hrs	Client Info		600		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR							
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m		10		
	Chromium	ppm	ASTM D5185m		0		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m		1		
	Copper	ppm	ASTM D5185m		2		
	Tin	ppm	ASTM D5185m	>15	0		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	nnm	ASTM D5185m	- 25	7		
CONTAIMINATION	Potassium	ppm	ASTM D5185m		7		
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		<1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	>0.2	NEG		
	Soot %	%	*ASTM D7844	- 1	0.4		
	Nitration	Abs/cm	*ASTM D7644	>4	8.4		
	Sulfation	Abs/.1mm	*ASTM D7024		20.1		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water		*Visual	>0.2	NEG		
			* 100aa				
FLUID CONDITION	Sodium	ppm	ASTM D5185m		5		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		4		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m	66	74		
	Manganese	ppm	ASTM D5185m		0		
	Magnesium	ppm	ASTM D5185m	1000	896		
	Calcium	ppm	ASTM D5185m	1050	1276		
	Phosphorus	ppm	ASTM D5185m	1150	1052		
	Zinc	ppm	ASTM D5185m	1270	1323		
	Sulfur	ppm	ASTM D5185m		3699		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7		
	Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.2		
	Visc @ 100°C	cSt	ASTM D445	15.5	13.4		







Certificate L2367

Laboratory Sample No.

: WC0941089 Lab Number : 06224414 Unique Number : 11102611

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested** 

Diagnosed Test Package : MOB 1 ( Additional Tests: TBN )

: 01 Jul 2024 : 02 Jul 2024

: 02 Jul 2024 - Jonathan Hester

**OAKRIDGE WASTE** 307 WHITE ST DANBURY, CT US 06810 Contact: CHRIS CONTI

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To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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