WEAR CONTAMINATION FLUID CONDITION

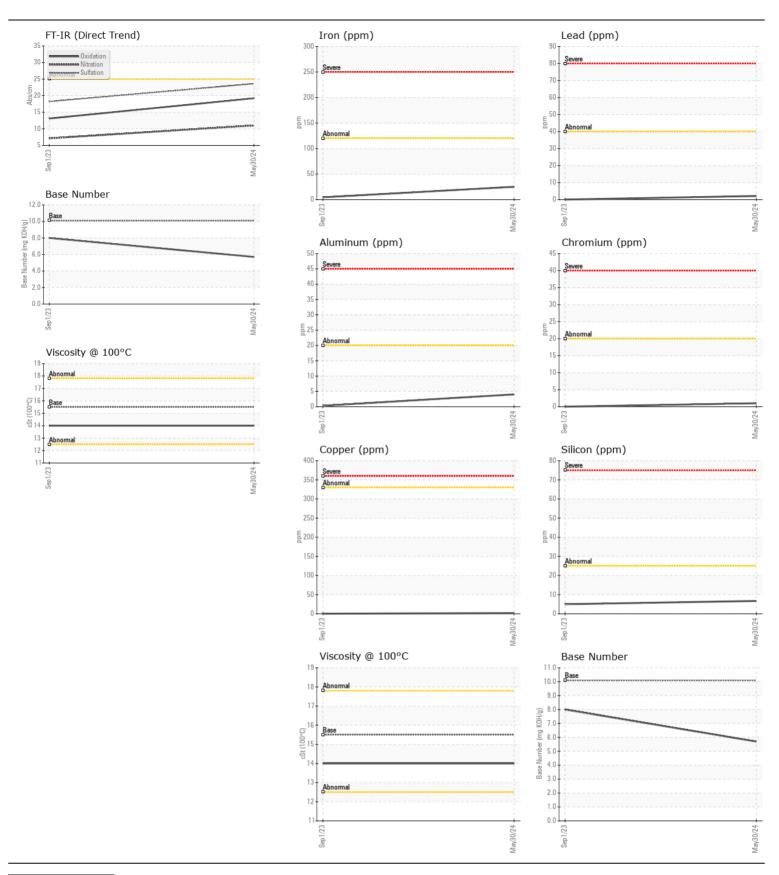
NORMAL NORMAL



Rockaway
Machine Id
MACK 6757
Component
Diesel Engine

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

Sample Number Collent Info Collent Info 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428	dibital fatt 15W/40 COI Lit O							
Resample at the next service interval to monitor. Sample Number Client Into W0084014 W204077477 W204077477 Sample Date Client Into W1084014 W204077477 W204077477 W20407477 W204077477 W20407477 W2040747 W2040747	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age hrs Client linio 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 175428 17	Resample at the next service interval to monitor.	Sample Number		Client Info		WC0840414	WC0774747	
Name		Sample Date		Client Info		30 May 2024	01 Sep 2023	
Filter Age		Machine Age	hrs	Client Info		175428	175428	
Oil Changed Client Info Changed Client Info Changed Ch			hrs	Client Info		175428	175428	
Filter Changed Cample Changed Changed			hrs	Client Info		175428	175428	
NORMAL N						Changed	Changed	
Iron		_		Client Info				
All component wear rates are normal. Chromium ppm ASTM D585m >20 1 0		Sample Status				NORMAL	NORMAL	
All component wear rates are normal. Chromium ppm ASTM D585m >20 1 0	WFAR	Iron	maa	ASTM D5185m	>120	25	4	
Nicke	All component wear rates are normal.							
Titanium ppm ASTM 05185m >2 <1 0								
Silver ppm ASTM D5185m >2								
Aluminum ppm ASTM D6185m >20 4 <1								
Lead								
Copper								
Tin								
Vanadium ppm ASTM D5185m <1 <1 <								
White Metal Scalar Visual NONE NON					/10			
Silicon ppm ASTM D5185m >25 7 5					NONE			
Silicon ppm ASTM D5185m >25 7 5								
Potassium ppm ASTM D5185m 20 6 3			Scalai	Visuai	INOINL	NONE	INOINE	
Fuel WC Method So.0 WC Method NEG	CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	7	5	
Value	-	Potassium	ppm	ASTM D5185m	>20	6	3	
Glycol Scot % % 'ASTM D7844 >4 0.7 0.3	There is no indication of any contamination in the oil.	Fuel		WC Method	>3.0	<1.0	<1.0	
Soot %		Water		WC Method	>0.2	NEG	NEG	
Nitration Abs/cm *ASTM D7624 >20 11.0 7.1		Glycol		WC Method		NEG	NEG	
Sulfation Abs/.tmm *ASTM D7415 >30 23.6 18.2		Soot %	%	*ASTM D7844	>4	0.7	0.3	
Silt scalar *Visual NONE NORML NORM		Nitration	Abs/cm	*ASTM D7624	>20	11.0	7.1	
Debris Scalar *Visual NONE NONE NONE NONE Sand/Dirt Scalar *Visual NONE NORML NORML		Sulfation	Abs/.1mm	*ASTM D7415	>30	23.6	18.2	
Sand/Dirt Scalar *Visual NONE NONE NONE Appearance Scalar *Visual NORML		Silt	scalar	*Visual	NONE	NONE	NONE	
Appearance Scalar *Visual NORML NORM		Debris	scalar	*Visual	NONE	NONE	NONE	
Codor Scalar *Visual NORML N		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Emulsified Water scalar *Visual >0.2 NEG NEG		Appearance	scalar	*Visual	NORML	NORML	NORML	
Sodium ppm ASTM D5185m Tole Tole Ppm ASTM D5185m Tole Tole Tole Ppm ASTM D5185m Tole Tole Tole Tole Ppm ASTM D5185m Tole Tol		Odor	scalar	*Visual	NORML	NORML	NORML	
Boron ppm ASTM D5185m 7 10		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Boron ppm ASTM D5185m 7 10	ELUID CONDITION	C a alia		ACTM DE105		4	4	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Barium ppm ASTM D5185m 66 64 64 64 64 64 64 6	FLUID CONDITION							
Molybdenum ppm ASTM D5185m 66 64 64 Manganese ppm ASTM D5185m 1000 799 846 Calcium ppm ASTM D5185m 1050 1222 1327 Phosphorus ppm ASTM D5185m 1150 961 1007 Zinc ppm ASTM D5185m 1270 1220 1255 Sulfur ppm ASTM D5185m 2826 3746 Oxidation Abs/.1mm *ASTM D7414 >25 19.2 13.1 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.7 8.0	The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.							
Manganese ppm ASTM D5185m <1					66			
Magnesium ppm ASTM D5185m 1000 799 846 Calcium ppm ASTM D5185m 1050 1222 1327 Phosphorus ppm ASTM D5185m 1150 961 1007 Zinc ppm ASTM D5185m 1270 1220 1255 Sulfur ppm ASTM D5185m 2826 3746 Oxidation Abs/.1mm *ASTM D7414 >25 19.2 13.1 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.7 8.0		•			00			
Calcium ppm ASTM D5185m 1050 1222 1327 Phosphorus ppm ASTM D5185m 1150 961 1007 Zinc ppm ASTM D5185m 1270 1220 1255 Sulfur ppm ASTM D5185m 2826 3746 Oxidation Abs/.1mm *ASTM D7414 >25 19.2 13.1 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.7 8.0					1000			
Phosphorus ppm ASTM D5185m 1150 961 1007 Zinc ppm ASTM D5185m 1270 1220 1255 Sulfur ppm ASTM D5185m 2826 3746 Oxidation Abs/.1mm *ASTM D7414 >25 19.2 13.1 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.7 8.0		•						
Zinc ppm ASTM D5185m 1270 1220 1255 Sulfur ppm ASTM D5185m 2826 3746 Oxidation Abs/.1mm *ASTM D7414 >25 19.2 13.1 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.7 8.0								
Sulfur ppm ASTM D5185m 2826 3746 Oxidation Abs/.1mm *ASTM D7414 >25 19.2 13.1 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.7 8.0								
Oxidation Abs/.1mm *ASTM D7414 >25 19.2 13.1 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.7 8.0					12/0			
Base Number (BN) mg KOH/g ASTM D2896 10.1 5.7 8.0					> 2F			
VISC @ 100°C CSL ASTM D440 10.0 14.0								
		visc @ 100°C	COI	A51W D445	15.5	14.0	14.0	





Certificate L2367

Laboratory Sample No.

: WC0840414 Lab Number : 06223145 Unique Number : 11101342

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

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

: 28 Jun 2024 : 28 Jun 2024 - Wes Davis

: 28 Jun 2024

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)

INTERSTATE WASTE-ROCKAWAY

311 WEST MAIN STREET, STE 8

ROCKAWAY, NJ US 07866

Contact: Service Manager

T:

F: