

Machine Id HINO BX-4

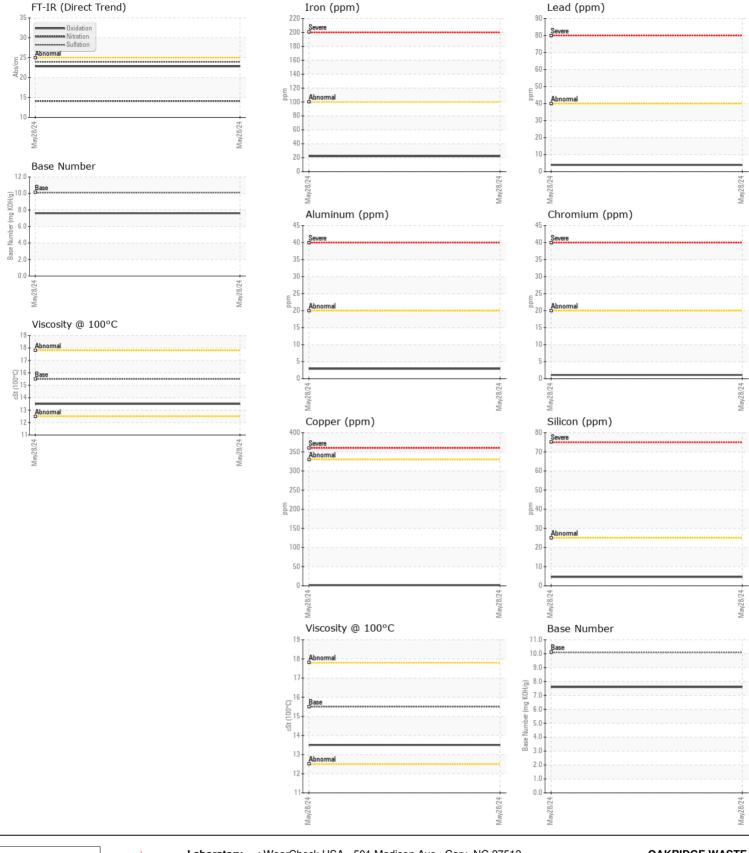
Component Diesel Engine

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

GIBRALIAR ISW/40 SUPER 5-3 LX (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0875510		
	Sample Date		Client Info		28 May 2024		
	Machine Age	hrs	Client Info		11688		
	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	Iron	ppm	ASTM D5185m	>100	22		
	Chromium	ppm	ASTM D5185m	>20	1		
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185m	>4	0		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m	>3	<1		
	Aluminum	ppm	ASTM D5185m	>20	3		
	Lead	ppm	ASTM D5185m	>40	4		
	Copper	ppm	ASTM D5185m	>330	2		
	Tin	ppm	ASTM D5185m	>15	0		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5		
	Potassium	ppm	ASTM D5185m	>20	1		
There is no indication of any contamination in the oil.	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	1.4		
	Nitration	Abs/cm	*ASTM D7624	>20	14.1		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9		
	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	scalar	*Visual	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		6		
	Boron	ppm	ASTM D5185m		6		
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		<1		
	Molybdenum	ppm	ASTM D5185m	66	83		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	1000	944		
	Calcium	ppm	ASTM D5185m	1050	1404		
	Phosphorus	ppm	ASTM D5185m	1150	1160		
	Zinc	ppm	ASTM D5185m	1270	1377		
	Sulfur	ppm	ASTM D5185m		3979		
	Oxidation	Abs/.1mm	*ASTM D7414		22.8		
	Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.6		
	Vier @ 10000	- 01		45 5	40 5		

Visc @ 100°C cSt ASTM D445 15.5

13.5



OAKRIDGE WASTE Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0875510 Received : 28 Jun 2024 307 WHITE ST Lab Number : 06223193 Tested : 28 Jun 2024 DANBURY, CT Unique Number : 11101390 Diagnosed : 28 Jun 2024 - Wes Davis US 06810 Test Package : MOB 1 (Additional Tests: TBN) Contact: CHRIS CONTI Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. chris.conti@oakridgewaste.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)