

WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

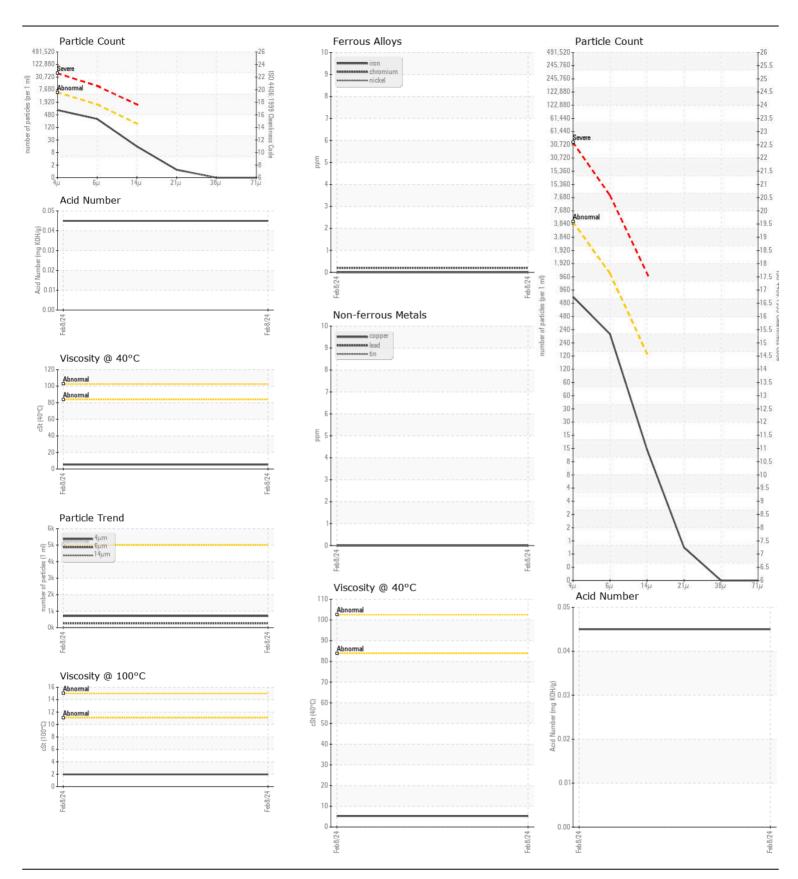
Machine Id

24B0701 FS-105

Component New (Unused) Oil

NOT GIVEN (--- GAL)

NOT GIVEN (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
This is a baseline read-out on the submitted sample.	Sample Number		Client Info		HPL0000945		
	Sample Date		Client Info		08 Feb 2024		
	Machine Age	hrs	Client Info		0		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m		0		
	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		1		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		0		
	Tin	ppm	ASTM D5185m		0		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION							
	Silicon	ppm	ASTM D5185m		9		
	Potassium	ppm	ASTM D5185m	>20	<1		
	Water		WC Method		NEG		
	Particles >4µm		ASTM D7647	>5000	706		
	Particles >6µm		ASTM D7647		266		
	Particles >14μm		ASTM D7647	>160	13		
	Particles >21μm		ASTM D7647	>40	1		
	Particles >38μm		ASTM D7647		0		
	Particles >71μm		ASTM D7647	>3	0		
	Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/11		
	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		NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		0		
	Boron	ppm	ASTM D5185m		0		
	Barium	ppm	ASTM D5185m		8		
	Molybdenum	ppm	ASTM D5185m		0		
	Manganese	ppm	ASTM D5185m		0		
	Magnesium	ppm	ASTM D5185m		<1		
	Calcium	ppm	ASTM D5185m		<1		
	Phosphorus	ppm	ASTM D5185m		19		
	Zinc	ppm	ASTM D5185m		5		
	Sulfur	ppm	ASTM D5185m		99		
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.045		
	Visc @ 40°C	cSt	ASTM D0045		5.28		
	V 130 (40 TO O	001	CTTU IVI DTTU		J.20		





Certificate L2367

Laboratory Sample No. Unique Number : 10875290

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : HPL0000945 Lab Number : 06087845

Received **Tested**

Diagnosed

: 13 Feb 2024 : 15 Feb 2024 : 15 Feb 2024 - Jonathan Hester

HIGH PERFORMANCE LUBRICANTS LLC 500 S SPRUCE ST MANTENO, IL US 60950

Test Package : MOB 2 (Additional Tests: FT-IR, KV100, PrtCount, VI) Contact: DAVID WARD sampledata@hplubricants.com To discuss this sample report, contact Customer Service at 1-800-237-1369. T: (815)468-3535

* - 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)

F: x: