		WEAR				NORMAL	
OIL ANALYSIS REPORT			CONTAMINATION FLUID CONDITION			NORMAL NORMAL	
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		LEC0033764	LEC0000729	LECP187813
Resample at the next service interval to monitor.	Sample Date		Client Info		20 Sep 2022	18 Apr 2019	19 Oct 2018
	Machine Age	hrs	Client Info		4726	2270	1627
	Oil Age	hrs	Client Info		2456	643	564
	Filter Age	hrs	Client Info		350	643	564
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>51	35	34	32
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	1	1
	Nickel	ppm	ASTM D5185m		<1	<1	1
	Titanium	ppm	ASTM D5185m		<1	<1	<1
	Silver	ppm	ASTM D5185m		<1	0	0
	Aluminum	ppm	ASTM D5185m	>31	4	7	5
	Lead	ppm	ASTM D5185m	>26	2	0	0
	Copper	ppm	ASTM D5185m	>26	2	9	19
	Tin	ppm	ASTM D5185m	>4	<1	<1	0
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon		ASTM D5185m	>!20	9	7	7
CONTAMINATION	Potassium	ppm ppm	ASTM D5185m		- 5 - 1	4	5
There is no indication of any contamination in the oil.	Fuel	ppin	WC Method		- <1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.L1	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	1.1	0.6	0.7
	Nitration	Abs/cm	*ASTM D7624		11.0	10.5	10.5
	Sulfation	Abs/.1mm	*ASTM D7415	>30	28.6	25.2	24.8
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG
FLUID CONDITION	Sodium	nom	ASTM D5185m	<u>_</u> 31	4	5	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 ppm	ASTM D5185m	201	47	91	94
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		118	236	190
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		547	820	749
	Calcium	ppm	ASTM D5185m		1574	1362	1657
	Phosphorus	ppm	ASTM D5185m		858	770	834
	Zinc	ppm	ASTM D5185m		1083	972	1034
	Sulfur	nnm	ASTM D5185m		2162	2218	2610

ppm ASTM D5185m

 Base Number (BN)
 mg KOH/g
 ASTM D2896
 13.6

 Visc @ 100°C
 cSt
 ASTM D445
 15.4

Abs/.1mm \*ASTM D7414 >25

Sulfur

Oxidation

2218 2619

7.6 8.8

19.9

14.8

20.3

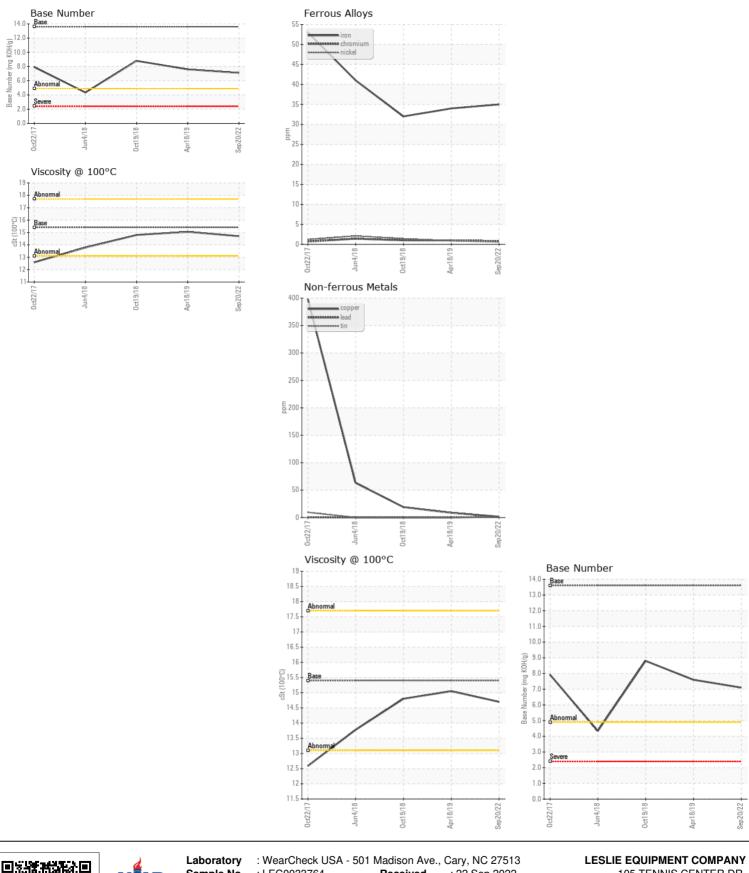
15.05

3163

22.9

7.1

14.7



Sample No. : LEC0033764 Received : 22 Sep 2022 105 TENNIS CENTER DR. Lab Number : 05648179 Tested : 23 Sep 2022 MARIETTA, OH Unique Number : 10142718 Diagnosed : 23 Sep 2022 - Jonathan Hester US 45750-9765 Test Package : CONST (Additional Tests: TBN) Contact: LEANNE KENDALL Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. KendalLeanne@lec1.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F: (740)373-5570 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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