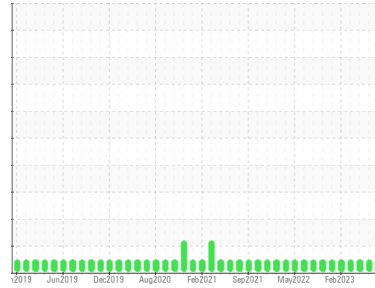




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
MACHINE SHOP
 Machine Id
0-9098-0000 STRADDLE CARRIER
 Component
Main Diesel Engine
 Fluid
ROYAL PURPLE 15W40 CI-4 (HD) (23 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0821652	WC0821657	WC0792329
Sample Date	Client Info		27 Aug 2023	06 Jun 2023	19 May 2023
Machine Age	hrs	Client Info	9656	8972	16635
Oil Age	hrs	Client Info	0	0	16635
Oil Changed	Client Info		N/A	Not Changd	Not Changd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	26	47	35
Chromium	ppm	ASTM D5185m >20	<1	1	<1
Nickel	ppm	ASTM D5185m >4	<1	<1	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	4	1	<1
Lead	ppm	ASTM D5185m >40	2	4	3
Copper	ppm	ASTM D5185m >330	3	4	3
Tin	ppm	ASTM D5185m >15	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	4	3	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m 120	65	74	69
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	12	24	14
Calcium	ppm	ASTM D5185m 3000	3489	4078	3653
Phosphorus	ppm	ASTM D5185m 1150	1167	1320	1149
Zinc	ppm	ASTM D5185m 1250	1385	1646	1418
Sulfur	ppm	ASTM D5185m 16000	18721	21930	15617

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	4	4
Sodium	ppm	ASTM D5185m	21	28	24
Potassium	ppm	ASTM D5185m >20	9	10	10

INFRA-RED

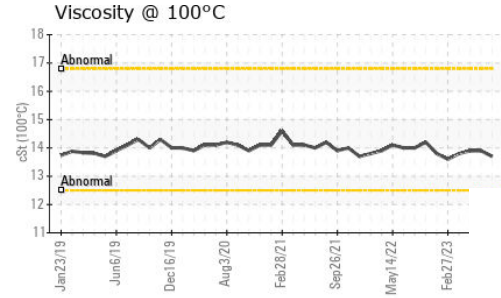
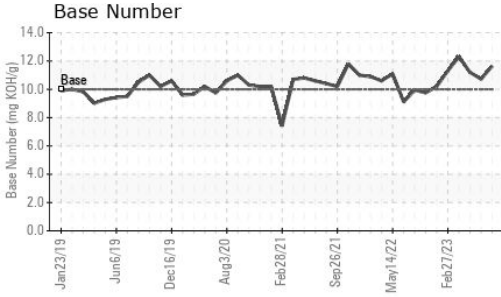
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.5	0.8	0.7
Nitration	Abs/cm	*ASTM D7624 >20	8.6	10.9	9.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	28.1	31.8	30.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.7	22.0	20.6
Base Number (BN)	mg KOH/g	ASTM D2896 10	11.64	10.72	11.20



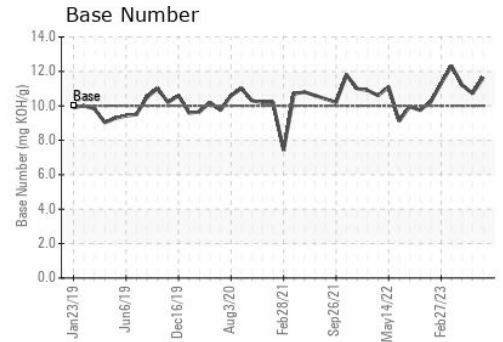
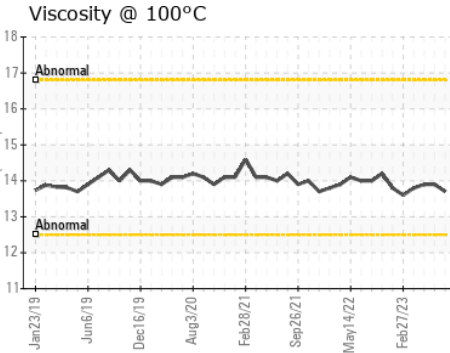
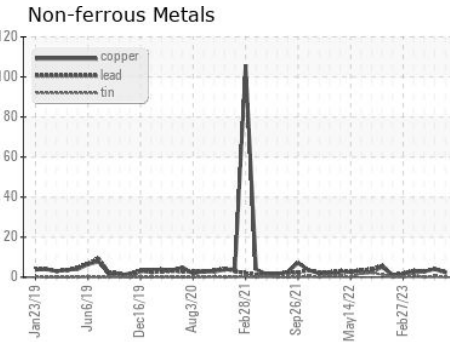
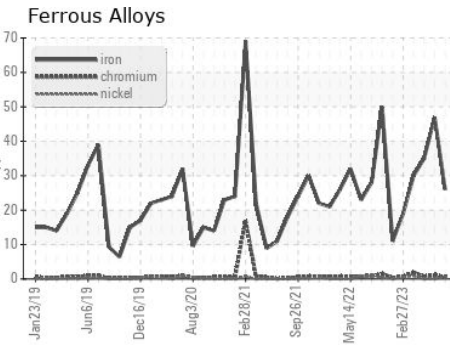
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.7	13.9	13.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0821652 Received : 30 Aug 2023
 Lab Number : 05939134 Diagnosed : 31 Aug 2023
 Unique Number : 10629746 Diagnostician : Wes Davis
 Test Package : IND 2

ALLVAC - MACHINE SHOP
 2020 ASHCRAFT AVE
 MONROE, NC
 US 28110

Contact: mark eilerman
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 T: (704)292-4051
 F: (704)282-0665

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)