HUTCHENS RENTZ-EDEN

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
CUMMINS BARBARA ANN
Component
Genset
Fluid
KENDALL SUPER-D XA 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

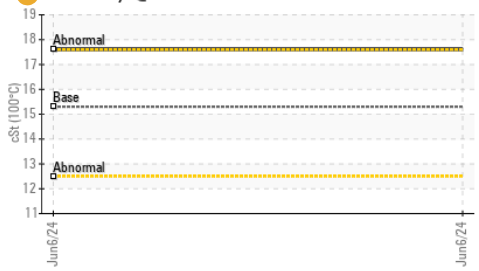
There is no indication of any contamination in the oil.

FLUID CONDITION

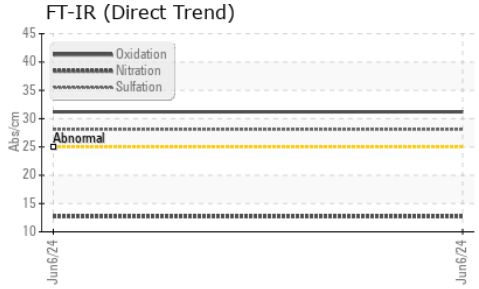
The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HRE0000254	---	---
Sample Date		Client Info		06 Jun 2024	---	---
Machine Age	hrs	Client Info		4801	---	---
Oil Age	hrs	Client Info		500	---	---
Filter Age	hrs	Client Info		500	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ATTENTION	---	---
Iron	ppm	ASTM D5185m	>50	35	---	---
Chromium	ppm	ASTM D5185m	>4	2	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m		12	---	---
Silver	ppm	ASTM D5185m	>5	0	---	---
Aluminum	ppm	ASTM D5185m	>12	4	---	---
Lead	ppm	ASTM D5185m	>17	3	---	---
Copper	ppm	ASTM D5185m	>70	5	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	6	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	12.7	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.1	---	---
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	>0.1	NEG	---	---
Sodium	ppm	ASTM D5185m		2	---	---
Boron	ppm	ASTM D5185m	50	28	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		48	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	270	714	---	---
Calcium	ppm	ASTM D5185m	1900	2359	---	---
Phosphorus	ppm	ASTM D5185m	1000	1187	---	---
Zinc	ppm	ASTM D5185m	1260	1518	---	---
Sulfur	ppm	ASTM D5185m	3400	5942	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	31.2	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.5	6.6	---	---
Visc @ 100°C	cSt	ASTM D445	15.3	17.6	---	---

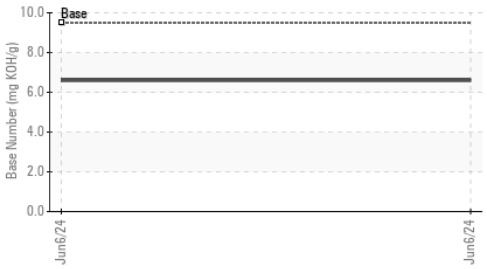
Viscosity @ 100°C



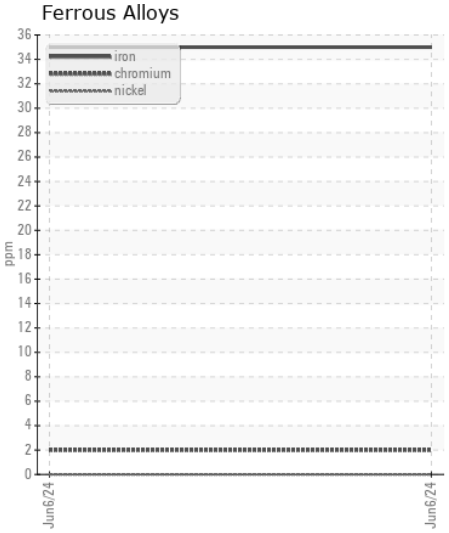
FT-IR (Direct Trend)



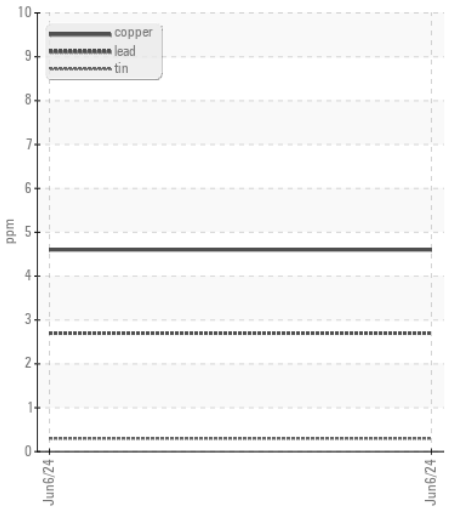
Base Number



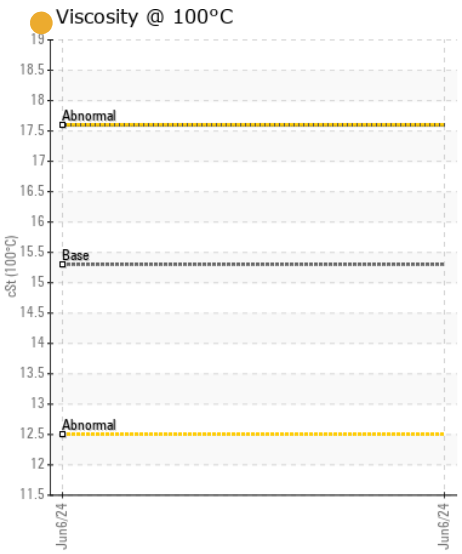
Ferrous Alloys



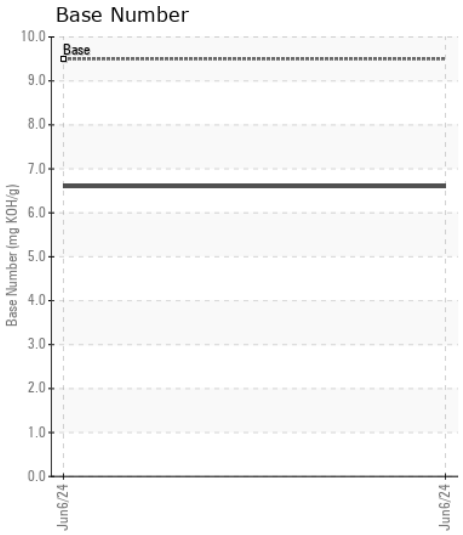
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HRE0000254
Lab Number : 06216464
Unique Number : 11089328
Test Package : FLEET

Received : 20 Jun 2024
Tested : 22 Jun 2024
Diagnosed : 23 Jun 2024 - Don Baldridge

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)

SUPERIOR MARINE
201 KELLY LANE
CHESAPEAKE, OH
US 45619
Contact: DARRELL KEARNS
darrellkearns@superiormarineinc.com
T:
F: