

OIL ANALYSIS REPORT

OKLAHOMA Machine Id 5568

Component **Diesel Engine**

Diesei Engine

MYSTIK JT-8 SYN SUPER HD 15W40 (--- GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

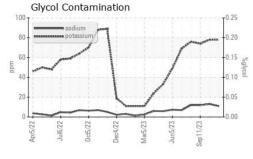
Fluid Condition

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

pd022 Jul022 Oc2022 Dec2022 Mar2023 Jun2023 Sep2023						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WCMFA69532	WC0810705	WC0810722
Sample Date		Client Info		08 Nov 2023	05 Oct 2023	11 Sep 2023
Machine Age	hrs	Client Info		3775	3565	3392
Oil Age	hrs	Client Info		2268	2058	1885
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	55	51	52
Chromium	ppm	ASTM D5185m	>20	4	3	4
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	30	29	30
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	3	4	8
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVEC			11 1.0			history O
ADDITIVES		method				history2
Boron	ppm	method ASTM D5185m	limit/base	current 1	history1 0	nistory2 0
	ppm		limit/base			
Boron	• •	ASTM D5185m	limit/base	1	0	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	1 0	0	0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 52	0 0 55	0 0 55
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 52 1	0 0 55 <1	0 0 55
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 52 1 949	0 0 55 <1 986	0 0 55 1 1040
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 52 1 949 1034	0 0 55 <1 986 1094	0 0 55 1 1040 1232
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 52 1 949 1034 946	0 0 55 <1 986 1094 970	0 0 55 1 1040 1232 1026
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 52 1 949 1034 946 1247	0 0 55 <1 986 1094 970 1273	0 0 55 1 1040 1232 1026 1360
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 52 1 949 1034 946 1247 2726	0 0 55 <1 986 1094 970 1273 2805	0 0 55 1 1040 1232 1026 1360 3653
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	1 0 52 1 949 1034 946 1247 2726	0 0 55 <1 986 1094 970 1273 2805	0 0 55 1 1040 1232 1026 1360 3653
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	1 0 52 1 949 1034 946 1247 2726 current	0 0 55 <1 986 1094 970 1273 2805 history1	0 0 55 1 1040 1232 1026 1360 3653 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	1 0 52 1 949 1034 946 1247 2726 current 5	0 0 55 <1 986 1094 970 1273 2805 history1	0 0 55 1 1040 1232 1026 1360 3653 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	1 0 52 1 949 1034 946 1247 2726 current 5 11	0 0 55 <1 986 1094 970 1273 2805 history1 5 13	0 0 55 1 1040 1232 1026 1360 3653 history2 5 12
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >20	1 0 52 1 949 1034 946 1247 2726 current 5 11 78 NEG	0 0 55 <1 986 1094 970 1273 2805 history1 5 13 78 NEG	0 0 55 1 1040 1232 1026 1360 3653 history2 5 12 74 NEG
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D2982	limit/base >25 >20 limit/base >3	1 0 52 1 949 1034 946 1247 2726 current 5 11 78 NEG	0 0 55 <1 986 1094 970 1273 2805 history1 5 13 78 NEG	0 0 55 1 1040 1232 1026 1360 3653 history2 5 12 74 NEG
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D5185m *ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D2982 *Method *ASTM D7844	limit/base >25 >20 limit/base >3	1 0 52 1 949 1034 946 1247 2726 current 5 11 78 NEG	0 0 55 <1 986 1094 970 1273 2805 history1 5 13 78 NEG history1 0.8	0 0 55 1 1040 1232 1026 1360 3653 history2 5 12 74 NEG history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20	1 0 52 1 949 1034 946 1247 2726 current 5 11 78 NEG current 1	0 0 55 <1 986 1094 970 1273 2805 history1 5 13 78 NEG history1 0.8	0 0 55 1 1040 1232 1026 1360 3653 history2 5 12 74 NEG history2 0.8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	limit/base >25 >20 limit/base >3 >20 >30	1 0 52 1 949 1034 946 1247 2726 current 5 11 78 NEG current 1	0 0 55 <1 986 1094 970 1273 2805 history1 5 13 78 NEG history1 0.8 10.8 23.7	0 0 55 1 1040 1232 1026 1360 3653 history2 5 12 74 NEG history2 0.8 10.6 22.9



OIL ANALYSIS REPORT



White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2

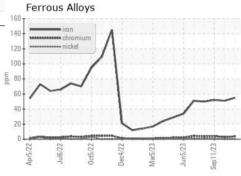
13.4

13.5

13.8

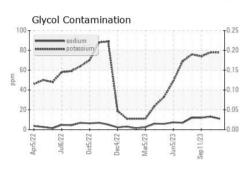
Visco		40°C					
Base		1 1	1 1 1				Ī
100 - Abnom	nal						-
80 -							
(40°C)							
₹ ₹ 40-							
20-							
0+							
-20							
Apr5/22	Jul6/22	Oct5/22	Dec4/22	Mar5/23	Jun5/23	Sep11/23	

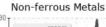


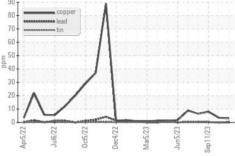


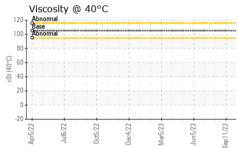
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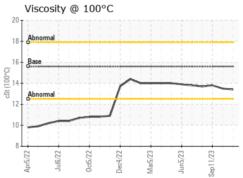
ASTM D445 15.6

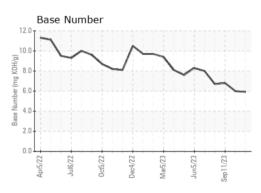
















Laboratory Sample No. Lab Number Unique Number : 10742622

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WCMFA69532 : 06008860

Received

: 15 Nov 2023

Diagnosed : 16 Nov 2023 Diagnostician : Sean Felton

Test Package: FLEET (Additional Tests: Glycol, KV40) 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.

LIBERTY DISPOSAL 6401 S EASTERN AVE OKLAHOMA CITY, OK

US 73149 Contact: Loran Cottle l.cottle@ldi89.com T: (910)970-0291

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: x: