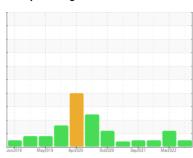


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id DT33 Component

Transmission (Auto)

COGNIS EMGARD 2805 ATF (15 mls)

DIAGNOSIS

Recommendation

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 condition of the oil is acceptable for the time in service.

		Jun2018	May2019 Apr2020	Oct2020 Sep2021 M	m2022	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0104125	PCA0071349	PCA0063032
Sample Date		Client Info		31 Aug 2023	31 Mar 2022	26 Jan 2022
Machine Age	mls	Client Info		287410	231462	223205
Oil Age	mls	Client Info		75000	75000	75000
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>160	59	56	161
Chromium	ppm	ASTM D5185m	>5	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	0	<1	<1
Aluminum	ppm	ASTM D5185m	>50	25	15	37
Lead	ppm	ASTM D5185m	>50	5	8	31
Copper	ppm	ASTM D5185m	>225	19	27	39
Tin	ppm	ASTM D5185m	>10	<1	1	4
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		115	83	122
Boron Barium	ppm	ASTM D5185m ASTM D5185m		115 7	83	122 0
Barium	ppm	ASTM D5185m		7	0	0
Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m		7	0 <1	0 <1
Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		7 3 <1	0 <1 <1	0 <1 22
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		7 3 <1 28	0 <1 <1 0 101 241	0 <1 22 0
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		7 3 <1 28 113	0 <1 <1 0	0 <1 22 0 31
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		7 3 <1 28 113 331	0 <1 <1 0 101 241	0 <1 22 0 31 280
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	7 3 <1 28 113 331 64	0 <1 <1 0 101 241 6	0 <1 22 0 31 280 4
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	limit/base >20	7 3 <1 28 113 331 64 1889	0 <1 <1 0 101 241 6 1147	0 <1 22 0 31 280 4 235
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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 D5185m		7 3 <1 28 113 331 64 1889	0 <1 <1 0 101 241 6 1147 history1	0 <1 22 0 31 280 4 235
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20	7 3 <1 28 113 331 64 1889 current	0 <1 <1 0 101 241 6 1147 history1 4	0 <1 22 0 31 280 4 235 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20	7 3 <1 28 113 331 64 1889 current 6 2	0 <1 <1 0 101 241 6 1147 history1 4 3	0 <1 22 0 31 280 4 235 history2 6 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20	7 3 <1 28 113 331 64 1889 current 6 2 1	0 <1 <1 0 101 241 6 1147 history1 4 3 0	0 <1 22 0 31 280 4 235 history2 6 2 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 limit/base	7 3 <1 28 113 331 64 1889 current 6 2 1 current	0 <1 <1 0 101 241 6 1147 history1 4 3 0 history1	0 <1 22 0 31 280 4 235 history2 6 2 2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm	ASTM D5185m method ASTM D5185m	>20 >20 limit/base NONE	7 3 <1 28 113 331 64 1889 current 6 2 1 current NONE	0 <1 <1 0 101 241 6 1147 history1 4 3 0 history1	0 <1 22 0 31 280 4 235 history2 6 2 2 NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>20 >20 limit/base NONE NONE	7 3 <1 28 113 331 64 1889 current 6 2 1 current NONE NONE	0 <1 <1 0 101 241 6 1147 history1 4 3 0 history1 MODER NONE	0 <1 22 0 31 280 4 235 history2 6 2 2 NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual	>20 >20 limit/base NONE NONE NONE	7 3 <1 28 113 331 64 1889 current 6 2 1 current NONE NONE	0 <1 <1 0 101 241 6 1147 history1 4 3 0 history1 MODER NONE NONE	0 <1 22 0 31 280 4 235 history2 6 2 2 NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm	ASTM D5185m Method ASTM D5185m *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE	7 3 <1 28 113 331 64 1889 current 6 2 1 current NONE NONE NONE NONE	0 <1 <1 0 101 241 6 1147 history1 4 3 0 history1 MODER NONE NONE	0 <1 22 0 31 280 4 235 history2 6 2 2 NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm	ASTM D5185m Method ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 separate	7 3 <1 28 113 331 64 1889 current 6 2 1 current NONE NONE NONE NONE NONE NONE	0 <1 <1 0 101 241 6 1147 history1 4 3 0 history1 MODER NONE NONE NONE NONE	0 <1 22 0 31 280 4 235 history2 6 2 2 NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm	ASTM D5185m Method *Visual	>20 simit/base NONE NONE NONE NONE NONE NONE NONE NON	7 3 <1 28 113 331 64 1889 current 6 2 1 current NONE NONE NONE NONE NONE NONE NONE NON	0 <1 <1 0 101 241 6 1147 history1 4 3 0 history1 MODER NONE NONE NONE NONE NONE NONE	0 <1 22 0 31 280 4 235 history2 6 2 2 NONE NONE NONE NONE NONE NONE NONE

NEG

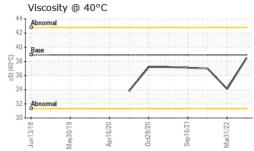
Free Water

scalar *Visual

NEG NEG

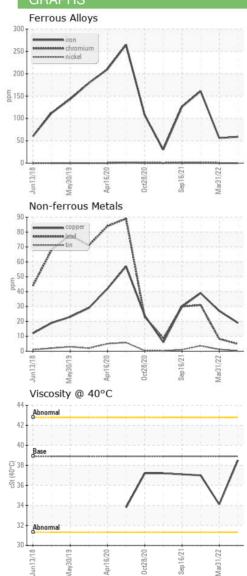


OIL ANALYSIS REPORT



FLUID PROF	PERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	38.9	38.5	34.1	37.0
SAMPLE IMA	AGES	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image

GRAPHS







Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10635955 Test Package : FLEET

: 05945343

: PCA0104125

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 07 Sep 2023 Diagnosed : 10 Sep 2023 Diagnostician : Don Baldridge

HK STEELE INC 400 N PARSON ST WEST COLUMBIA, SC

US 29169

Contact: GEORGE EDWARDS

gedwards@nwwhite.com T:

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)

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Submitted By: Paul Riddick

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