

LABORATORY ANALYSIS



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Department **REYLAM-PRESS**
 Equipment No. **TURNSC0402 TURNSTYLE #2-04 (00124)**
 System **Gearbox**
 Oil Type **ENGINEERED LUBRICANTS ENLUBE 85-EP GEAR OIL (--- GAL)**

COPELAND (MHDS)
 6001 S. 35TH STREET, SUITE D"
 REYNOSA, ZZ
 US
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 T:
 F:

Diagnosis

We advise that you check for the source of water entry. We recommend that you drain the fluid from the component if this has not already been done. We recommend an early resample to monitor this condition. Iron (Fe) ppm levels are abnormal. Gear wear is indicated. There is a high concentration of water present in the oil. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sample Information

Lab Number	New	2404-00877	2401-00761	2310-00797
Date of Sample	(Typical)	05 Apr 2024	19 Jan 2024	10 Oct 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Months on Sample		168.9	166.5	163.2
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		SEVERE	ABNORMAL	ABNORMAL

VISCOSITY @ 100F or 40C (ASTM D-445)

SSU Vis. @ 100F	SSU	262.5	860.0	1,121.6
cSt Vis. @ 40C	cSt	220	▲ 163.5	■ 212.2

% WATER - KARL FISCHER (ASTM E203)

% Water (KF)	%	▲ 2.43	NEG	NEG
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PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>23/22/16	21/17/11	24/22/18	22/21/18
4 Micron & Larger	particles/ml	>80000	■ 11,680	● 82,592	■ 36,867
6 Micron & Larger	particles/ml	>40000	■ 681	■ 28,219	■ 18,991
14 Micron & Larger	particles/ml	>640	■ 17	▲ 1,683	▲ 1,342
21 Micron & Larger	particles/ml	>160	■ 5	222	▲ 212
38 Micron & Larger	particles/ml	>40	■ 0	■ 1	■ 3
70 Micron & Larger	particles/ml	>10	■ 0	■ 0	■ 0

ICP - OILS (REPORTED IN PARTS PER MILLION)

Element	ppm	<5	<5	<5
Aluminum (Al)	ppm	<5	<5	<5
Antimony (Sb)	ppm	<5	<5	<5
Cadmium (Cd)	ppm	<5	<5	<5
Chromium (Cr)	ppm	<5	<5	<5
Cobalt (Co)	ppm	<5	<5	<5
Copper (Cu)	ppm	■ 12	■ <5	■ <5
Iron (Fe)	ppm	▲ 73	■ <5	■ <5
Lead (Pb)	ppm	9	<5	<5
Manganese (Mn)	ppm	6	<5	<5
Molybdenum(Mo)	ppm	<5	<5	<5
Nickel (Ni)	ppm	<5	<5	<5
Silver (Ag)	ppm	<5	<5	<5
Tin (Sn)	ppm	<5	<5	<5
Titanium (Ti)	ppm	<5	<5	<5
Vanadium (V)	ppm	<5	<5	<5
Barium (Ba)	ppm	<5	<5	<5
Boron (B)	ppm	12	<5	<5
Calcium (Ca)	ppm	47	12	<5
Magnesium (Mg)	ppm	<5	<5	<5
Phosphorus(P)	ppm	234	■ 481	■ 315
Silicon (Si)	ppm	<5	<5	<5
Zinc (Zn)	ppm	482	110	<5
Sulfur (S)	ppm	1,750	2,570	2,800

Customer Id: MOTMCA
 Sample No.: EN24040877
 Lab Number: 24040877
 Test Package: TEST



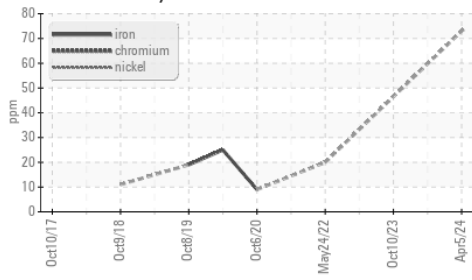
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OIL ANALYSIS REPORT

▲ Ferrous Alloys



DR FERROGRAPHY READINGS

L		■ 43.3	■ 28.9	■ 0.4
S		■ 36.6	■ 4.2	■ 0.1
WPC	DL + DS	■ 79.9	■ 33.1	■ 0.5

Water (KF)



Viscosity @ 40°C

