

# LABORATORY ANALYSIS



11525 Rock Island Court, St. Louis, MO 63043  
Tel: 1-800-876-0008 info@englube.com

**NMCM NIDEC-CMD**  
612 NORTH MAIN, SUITE 26801  
MONTERREY, ZZ  
MX  
Contact: Ricardo Cerrillo  
ricardo.cerrillo@nidec-motor.com  
T:  
F:

Equipment No. **PRENSA (00002)**  
System **Hydraulic System**  
Oil Type **LUBRAL HIDRALICO ALTO DESEMPER 32 (--- GAL)**

## DIAGNOSIS

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. L and S, severity index and wpc levels are severe. Iron (Fe) ppm levels are abnormal. Cylinder or oil pump wear indicated. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

Lab Number	New	<b>2312-00793</b>	---	---
Date of Sample	(Typical)	<b>15 Dec 2023</b>	---	---
Oil Added		<b>UNK</b>	---	---
Last Drain Date		<b>--</b>	---	---
Last Filter Service		<b>--</b>	---	---
Sample Point		<b>---</b>	---	---
Sample Status		<b>SEVERE</b>	---	---

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

SSU Vis. @ 100F	SSU	<b>168.4</b>	---	---
cSt Vis. @ 40C	cSt	<b>32</b>	<b>32.57</b>	---

## TOTAL ACID NUMBER (NEUT. NO.)(ASTM D974)

TAN, mg KOH/g	mg KOH/g	0.52	<b>1.39</b>	---	---
---------------	----------	------	-------------	-----	-----

## PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>21/20/16	<b>26/25/18</b>	---	---
4 Micron & Larger	particles/ml	>20000	<b>353,753</b>	---	---
6 Micron & Larger	particles/ml	>10000	<b>195,929</b>	---	---
14 Micron & Larger	particles/ml	>640	<b>2,420</b>	---	---
21 Micron & Larger	particles/ml	>160	<b>116</b>	---	---
38 Micron & Larger	particles/ml	>40	<b>4</b>	---	---
70 Micron & Larger	particles/ml	>10	<b>1</b>	---	---

## ICP - OILS (REPORTED IN PARTS PER MILLION)

Aluminum (Al)	ppm		<b>*</b>	---	---
Antimony (Sb)	ppm		<b>*</b>	---	---
Cadmium (Cd)	ppm		<b>*</b>	---	---
Chromium (Cr)	ppm		<b>*</b>	---	---
Cobalt (Co)	ppm		<b>*</b>	---	---
Copper (Cu)	ppm		<b>*</b>	---	---
Iron (Fe)	ppm		<b>32</b>	---	---
Lead (Pb)	ppm		<b>*</b>	---	---
Manganese (Mn)	ppm		<b>*</b>	---	---
Molybdenum(Mo)	ppm		<b>*</b>	---	---
Nickel (Ni)	ppm		<b>*</b>	---	---
Silver (Ag)	ppm		<b>&lt;5</b>	---	---
Tin (Sn)	ppm		<b>*</b>	---	---
Titanium (Ti)	ppm		<b>*</b>	---	---
Vanadium (V)	ppm		<b>*</b>	---	---
Barium (Ba)	ppm		<b>*</b>	---	---
Boron (B)	ppm		<b>&lt;5</b>	---	---
Calcium (Ca)	ppm	55	<b>91</b>	---	---
Magnesium (Mg)	ppm		<b>*</b>	---	---
Phosphorus(P)	ppm	355	<b>451</b>	---	---
Silicon (Si)	ppm		<b>*</b>	---	---
Zinc (Zn)	ppm	431	<b>91</b>	---	---
Sulfur (S)	ppm	1380	<b>2,750</b>	---	---

Customer Id: NMLCAPO  
Sample No.: EN23120793  
Lab Number: 23120793  
Test Package: TEST



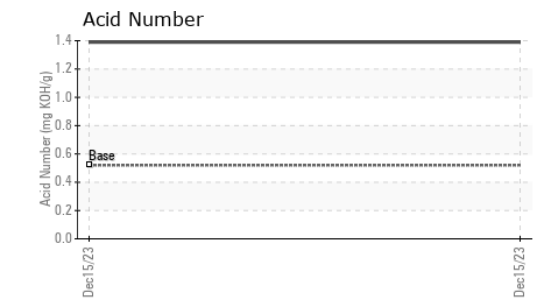
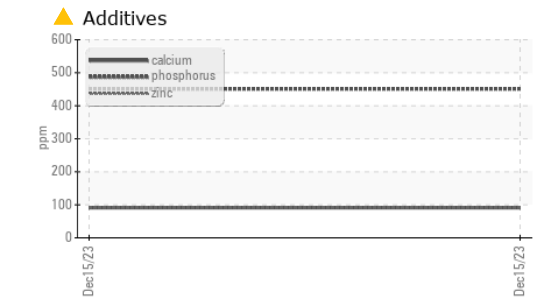
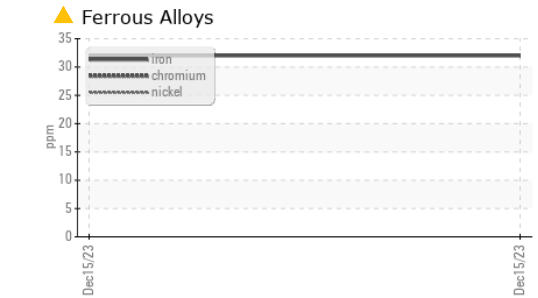
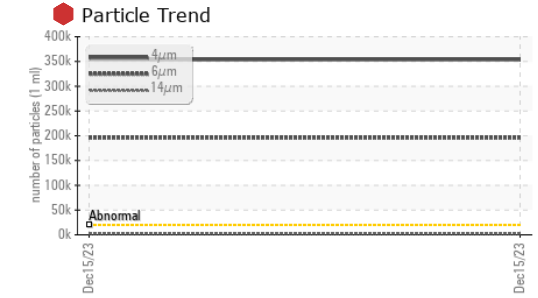
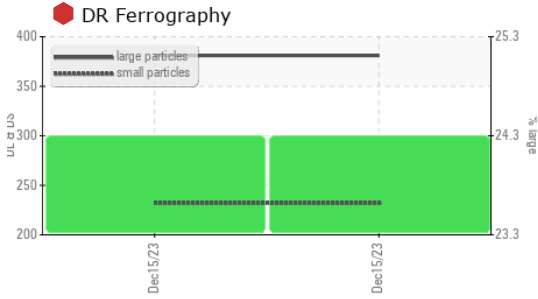
To manage this report scan the QR code

To discuss the diagnosis or test data:

Brad Fritz +1 (314)872-9540  
[bfritz@englube.com](mailto:bfritz@englube.com)

To change component or sample information:

Tracy Weaks +1 (314)872-9540  
[tweaks@englube.com](mailto:tweaks@englube.com)



## ENERGY DISPERSIVE XRF - PPM (\*BELOW MINIMUM DETECTION LIMIT)

Aluminum (Al)	ppm	█*	---	---
Antimony (Sb)	ppm	█*	---	---
Cadmium (Cd)	ppm	█*	---	---
Chromium (Cr)	ppm	█*	---	---
Cobalt (Co)	ppm	█*	---	---
Copper (Cu)	ppm	█*	---	---
Iron (Fe)	ppm	▲ 32	---	---
Lead (Pb)	ppm	█*	---	---
Manganese (Mn)	ppm	█*	---	---
Molybdenum(Mo)	ppm	█*	---	---
Nickel (Ni)	ppm	█*	---	---
Potassium (K)	ppm	█*	---	---
Tin (Sn)	ppm	█*	---	---
Titanium (Ti)	ppm	█*	---	---
Vanadium (V)	ppm	█*	---	---
Barium (Ba)	ppm	█*	---	---
Calcium (Ca)	ppm	55	█ 91	---
Magnesium (Mg)	ppm		█*	---
Phosphorus(P)	ppm	355	█ 451	---
Silicon (Si)	ppm		█*	---
Zinc (Zn)	ppm	431	▲ 91	---
Chlorine (Cl)	ppm		▲ 52	---
Sulfur (S)	ppm	1380	▲ 2,750	---

## DR FERROGRAPHY READINGS

L		█ 381.0	---	---
S		█ 232.0	---	---
WPC	DL + DS	█ 613	---	---

## CONTAMINATION

Water	>0.05	NEG	---	---
-------	-------	-----	-----	-----