

# **UIN 0B02E99**

# **Diesel Engine**

Unit No.

Sohler Home

Unit: Make

Model Serial No. 00766466

Site

Compartment:

Diesel Engine Name

Make Model

Serial No.

Capacity:

**Customer:** 

MITCH HOKAMP

55932 857 RD Randolph, NE 68771

USA

## **DIAGNOSIS**

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Fuel dilution satisfactory. Viscosity within specified operating range. Action: Resample at next recommended interval to monitor and establish wear trend.

ANALYST: Sam.Smith Kansas City













DATE SAMPLED	20-Nov-24	
DATE RECEIVED	26-Nov-24	
DATE REPORTED	27-Nov-24	

LAB NO.	43021996474
SIF NO.	35588380
TIME ON UNIT	
TIME ON OIL	160
OIL BRAND	Kendall
OIL TYPE	Super-D XA
OIL GRADE	SAE 15W40
OIL ADDED	
FILTER	Not Applicable
OIL CHANGED	Not Changed
WO NUMBER	

1
<1
<1
<1
2
<1
<1
82
<1

Contaminants (ppm)	
Silicon (Si)	
Sodium (Na)	

Metals (ppm)

Iron (Fe)

Additives (ppm)	
Potassium (K)	<
Sodium (Na)	6

Additives (ppiii)	
Magnesium (Mg)	537
Calcium (Ca)	2005
Barium (Ba)	<1
Phosphorus (P)	1083
Zinc (Zn)	1465
Molybdenum (Mo)	12
Boron (B)	72

Contaminants	
Water (%)	<0.05
Coolant	No

nysical Tests	
Viscosity (cSt 100C)	16.1
Fuel (%)	<1
PQ Index	<10
Soot (%) Infrared D7844	1.3



26

4



#### Chromium (Cr) Iron (Fe) -- Soot (%) Infrared D7844 Viscosity (cSt 100C) 30 20 1.4 1.4 1.2 1.2 25 Deg 15 - 1 20 PPM C PPM Fe % 100 8.0 8.0 15 Soot 10 0.6 0.6 8 10 0.4 0.4 5 SSt 5 0.2 0.2 0 0 20/11/2024 20/11/2024 Water (%) Copper (Cu) -- Lead (Pb) •••• Tin (Sn) 1.2 0.05 0.04 8.0 % Water PPM 0.03 0.6 0.02 0.4 0.01 0.2 0 n 20/11/2024 20/11/2024 Filter **Image** -- Silicon (Si) Aluminium (AI) Sodium (Na) Filter patch test is not 6 performed Contact laboratory for more information 2

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.

> Mitch Hokamp Attn: Mitch Hokamp 55932 857 RD Randolph, NE 68771 **USA**

20/11/2024

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## 0B02E99

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#### **TEST METHODS:**

Acid Number: ASTM D974/D664 (\*M)

Base Number: ASTM D4739 (\*M) Base Number (Perchloric): ASTM D2896B, back (\*M)

Fuel Dilution by GC: ASTM D7593 Fuel Dilution Visc/Setaflash In House

Fuel Soot ATR/IR: ASTM D7686 (\*M) Soot by FTIR: **ASTM D7844** 

Glycol: In House Metals by ICP AES: ASTM D5185 (\*M)

Ox. NOx. SOx. FTIR: ASTM E2412/D7418/D7414

D7415

PQ Index: ASTM D8120 (\*M)

Particle Count: ASTM D7647 (\*M) / ISO 4406 Kinematic Viscosity: ASTM D445 (\*M) / D7279 (\*M)

Water KF: D6304 / E203 (\*M)

Water Crackle: In House

\*M - Modified Method