OIL ANALYSIS REPORT

NADINE URCIUOLI KOHLER KOHLER 13EOZD (S/N NOT GIVEN) - GENSET

Sample No: VPA051506

Oil Type: DIESEL ENGINE OIL SAE 15W40

SAMPLE INFORMATION

Machine Hours 139 Dil Hours 0 Dil Changed N/A ample Status NORMAL OIL CONDITION fisc @ 100°C cSt 13.8 fisc @ 100°C cSt 13.8 oxidation (PA) Mg KOH/g 8.0 oxidation (PA) % 0.1 cott% % 0.1 ulfation (PA) % 51 silycol % 47 ulfation (PA) % <1.0 silycol % <1.0 odium ppm<					
ample Date 03 Aug 2023 Aachine Hours 139 Dil Hours 0 Dil Hours 0 Dil Changed N/A ample Status NORMAL OIL CONDITION fisc @ 100°C cSt 13.8 asse Number (BN) mg KOH/g 8.0 Did dation (PA) % 48 cont % % 0.1 Dif fation (PA) % 47 ulfation (PA) % 47 ilicon % <tl> uel % <tl><tl> odium ppm<td>Sample Number</td><td></td><td>VPA051506</td><td> </td><td></td></tl></tl></tl>	Sample Number		VPA051506	 	
Machine Hours 139 Dil Hours 0 Dil Changed N/A ample Status NORMAL OIL CONDITION fisc @ 100°C cSt 13.8 fisc @ 100°C cSt 13.8 oxidation (PA) Mg KOH/g 8.0 oxidation (PA) % 0.1 oot % % 0.1 ulfation (PA) % 47 silycol % NEG uel % <1.0	Sample Date		03 Aug 2023	 	
N/A ample Status NORMAL OIL CONDITION risc @ 100°C cSt 13.8 sase Number (BN) mg KOH/g 8.0 oxidation (PA) % 48 oot % % 0.1 oot % % 47 silycol % NEG uel % <1.0	Machine Hours			 	
NORMAL OIL CONDITION risc @ 100°C cSt 13.8 ase Number (BN) mg KOH/g 8.0 oxidation (PA) % 48 cONTAMINATION - oot % % 0.1 oot % % 0.1 oot % % 0.1 litration (PA) % 47 slycol % NEG uel % <1.0	Oil Hours		0	 	
OIL CONDITION OIL CONDITION Instantion of the second sec	Oil Changed		N/A	 	
Tisc @ 100°C cSt 13.8 ase Number (BN) mg KOH/g 8.0 oxidation (PA) % 48 CONTAMINATION soot % % 0.1 Nitration (PA) % 51 ulfation (PA) % 47 slycol % NEG uel % <1.0	Sample Status		NORMAL	 	
Tisc @ 100°C cSt 13.8 ase Number (BN) mg KOH/g 8.0 oxidation (PA) % 48 CONTAMINATION soot % % 0.1 Nitration (PA) % 51 ulfation (PA) % 47 slycol % NEG uel % <1.0					
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CONTAMINATION oot % % 0.1 Nitration (PA) % 51 ulfation (PA) % 47 Silycol % NEG uel % <1.0	. ,	5 . 5	-	 	
oot % % 0.1 litration (PA) % 51 ulfation (PA) % 47 slycol % NEG uel % <1.0 odium ppm 8 odium ppm 3 otassium ppm 5					
oot % % 0.1 litration (PA) % 51 ulfation (PA) % 47 slycol % NEG uel % <1.0	CONTAMINATION				
Nitration (PA) % 51 ulfation (PA) % 47 silycol % NEG uel % <1.0					
ulfation (PA) % 47 slycol % NEG uel % <1.0				 	
% NEG uel % <1.0	Nitration (PA)	%	51	 	
uel % <1.0	Sulfation (PA)	%	47	 	
ilicon ppm 8 odium ppm 3 otassium ppm 5	Glycol	%	NEG	 	
odium ppm 3 otassium ppm 5	Fuel	%	<1.0	 	
otassium ppm 5	Silicon	ppm	8	 	
	Sodium	ppm	3	 	
	Potassium	ppm	5	 	

WEAR METALS

Iron	ppm	2	 	
Copper	ppm	■ <1	 	
Lead	ppm	■ <1	 	
Tin	ppm	0	 	
Aluminum	ppm	 <1	 	
Chromium	ppm	0	 	
Molybdenum	ppm	 <1	 	
Nickel	ppm	0	 	
Titanium	ppm	 <1	 	
Silver	ppm	0	 	
Manganese	ppm	 <1	 	
Vanadium	ppm	<1	 	

ADDITIVES

Calcium	ppm	1290	 	
Magnesium	ppm	684	 	
Zinc	ppm	784	 	
Phosphorus	ppm	654	 	
Barium	ppm	0	 	
Boron	ppm	97	 	

Helmuts Marine Service

619 Canal Street SAN RAFAEL, CA US 94901-3545 Contact: NADINE URCIUOLI SERVICE@HELMUTSMARINE.COM T: x: F: x:

Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

 Depot:
 VP152741

 Unique No:
 10587860

 Signed:
 Don Baldridge

 Report Date:
 07 Aug 2023

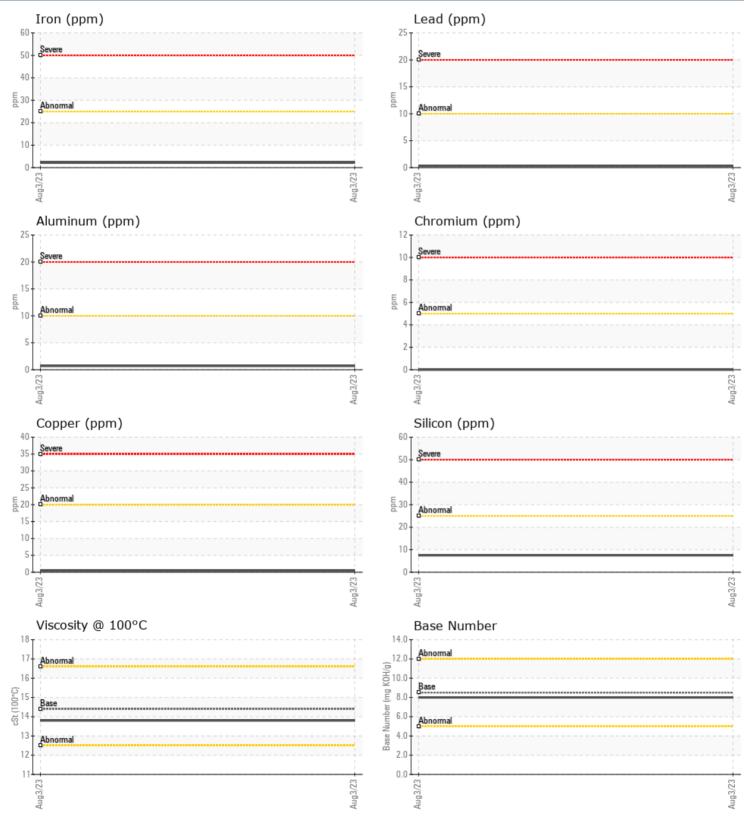
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OIL ANALYSIS REPORT



GRAPHS



Report Id: VP152741 [WUSCAR] 05915946 (Generated: 08/08/2023 15:45:01) Rev: 1

Contact/Location: NADINE URCIUOLI - VP152741