

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A924C064062-1049 - Diesel Engine

Sample No: LH0261037

Oil Type: PETRO CANADA DURON HP 15W40



SAMPLE INFORMATION

Sample Number	LH0261037	LH0235191	LH0225476	LH
Sample Date	14 Jun 2023	28 Sep 2022	19 May 2022	06 Aug 2021
Machine Hours	13298	12508	11988	11114
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

MARCEL DUVAL FER ET METAUX INC.
661 RANG STE-MARIE
ST. SEBASTIEN, QC
CA J0J 2C0
Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	13.9	13.8	13.8	12.0
Oxidation (PA)	%	65	60	57	62

T:
F:



CONTAMINATION

Soot %	%	1.5	1.3	0.8	1.5
Nitration (PA)	%	79	72	75	72
Sulfation (PA)	%	63	60	60	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	0.2
Silicon	ppm	6	6	6	6
Sodium	ppm	2	2	1	2
Potassium	ppm	2	0	<1	2

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



WEAR METALS

Iron	ppm	25	23	14	39
Copper	ppm	2	2	2	4
Lead	ppm	1	1	<1	1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	2	1	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	51	57	28	59
Nickel	ppm	0	0	<1	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1310	1223	1709	1162
Magnesium	ppm	832	916	443	979
Zinc	ppm	1233	1251	1235	1266
Phosphorus	ppm	1084	1110	1057	1107
Barium	ppm	0	0	0	0
Boron	ppm	19	4	24	4

Depot: MARSTS
Unique No: 5604297
Signed: Wes Davis
Report Date: 29 Jun 2023



GRAPHS

