

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R920 045555-1705 - Diesel Engine

Sample No: LH0274134

Oil Type: DIESEL ENGINE OIL SAE 40



SAMPLE INFORMATION

Sample Number	LH0274134	LH0165219	LH0165218	LH0165212
Sample Date	28 Aug 2023	07 Oct 2022	11 Mar 2022	31 Aug 2021
Machine Hours	2972	2633	2341	1906
Oil Hours	0	350	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Entreprises Hans Gruenwald Inc.
 3756 chemin des Sables
 Vaudreuil-Dorion, QC
 CA J7V 0K1
 Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	14.5	14.1	14.5	14.4
Oxidation (PA)	%	78	78	62	55

T:
F:



CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	78	76	77	67
Sulfation (PA)	%	67	64	65	57
Glycol	%	NEG	0.0	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	5	8	4
Sodium	ppm	4	2	3	2
Potassium	ppm	8	7	4	3

Diagnosis

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition. Les taux d'usure de tous les composants sont normaux. Il n'y a aucun indice de contamination dans l'huile. L'état de l'huile est acceptable pour la durée de service.



WEAR METALS

Iron	ppm	8	7	10	6
Copper	ppm	1	2	4	6
Lead	ppm	0	0	0	<1
Tin	ppm	0	0	0	<1
Aluminum	ppm	2	1	1	1
Chromium	ppm	<1	0	<1	<1
Molybdenum	ppm	4	8	<1	<1
Nickel	ppm	<1	0	0	<1
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	2349	2423	2493	2418
Magnesium	ppm	37	63	14	15
Zinc	ppm	1230	1236	1182	1140
Phosphorus	ppm	1088	1129	1014	1007
Barium	ppm	0	0	0	0
Boron	ppm	143	133	40	31

Depot: ENT375VAU
Unique No: 5632027
Signed: Wes Davis
Report Date: 29 Aug 2023



GRAPHS

