

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L580 1414-56018 - Diesel Engine

Sample No: LH06027016

Oil Type: LIEBHERR MOTOROIL 5W30



SAMPLE INFORMATION

Sample Number	LH06027016	LH05999672	LH0158324	LH0158445
Sample Date	05 Dec 2023	05 Nov 2023	29 Sep 2023	30 Jul 2023
Machine Hours	0	0	1426	10000
Oil Hours	15017	14495	0	0
Oil Changed	Changed	Not Changd	N/A	N/A
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

VERSO CORP - QUINNESEC MILL
W6791 US HWY 2
QUINNESEC, MI
US 49876
Contact: ERIC LARSON
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T:
F:



OIL CONDITION

Visc @ 100°C	cSt	12.6	12.3	11.8	12.0
Base Number (BN)	mg KOH/g	12.1	12.8	14.0	13.6
Oxidation (PA)	%	89	77	53	63



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.1	0.2
Nitration (PA)	%	157	144	114	129
Sulfation (PA)	%	67	61	47	56
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	8	9	10
Sodium	ppm	3	2	2	115
Potassium	ppm	0	0	1	48

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 suitable for further service.



WEAR METALS

Iron	ppm	12	9	9	14
Copper	ppm	2	<1	<1	4
Lead	ppm	2	0	<1	<1
Tin	ppm	2	<1	<1	<1
Aluminum	ppm	3	3	2	5
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	1	0	1	10
Nickel	ppm	1	0	0	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	5013	5033	4672	4415
Magnesium	ppm	52	50	40	103
Zinc	ppm	1366	1411	1330	1248
Phosphorus	ppm	1101	1194	1120	1057
Barium	ppm	0	0	0	0
Boron	ppm	239	237	320	241

Depot: VERQUI
Unique No: 10776807
Signed: Wes Davis
Report Date: 07 Dec 2023



GRAPHS

