

# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# **DOOSAN DL250 PAYLOADER**

**Diesel Engine** 

KENDALL DIESEL PLUS SAE 15W40 (--- GA

### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

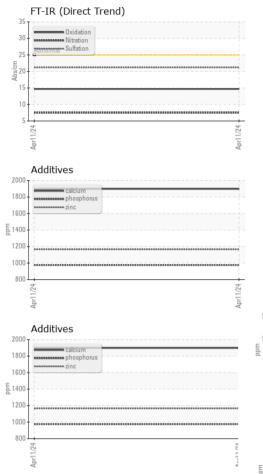
### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

AL)			Apr2024				
,							
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		PP0000679			
Sample Date		Client Info		11 Apr 2024			
Machine Age	hrs	Client Info		12684			
Oil Age	hrs	Client Info		0			
Oil Changed		Client Info		Not Changd			
Sample Status				NORMAL			
CONTAMINATION	V	method	limit/base	current	history1	history2	
Fuel		WC Method	>3.0	<1.0			
Water		WC Method	>0.1	NEG			
Glycol		WC Method		NEG			
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	9			
Chromium	ppm	ASTM D5185(m)	>20	0			
Nickel	ppm	ASTM D5185(m)	>5	0			
Titanium	ppm	ASTM D5185(m)		94			
Silver	ppm	ASTM D5185(m)	>3	0			
Aluminum	ppm	ASTM D5185(m)	>20	3			
Lead	ppm	ASTM D5185(m)	>40	0			
Copper	ppm	ASTM D5185(m)	>30	1			
Tin	ppm	ASTM D5185(m)	>15	0			
Antimony	ppm	ASTM D5185(m)		0			
Vanadium	ppm	ASTM D5185(m)		<1			
Beryllium	ppm	ASTM D5185(m)		0			
Cadmium	ppm	ASTM D5185(m)		0			
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		117			
Barium	ppm	ASTM D5185(m)		0			
Molybdenum	ppm	ASTM D5185(m)		5			
Manganese	ppm	ASTM D5185(m)		0			
Magnesium	ppm	ASTM D5185(m)		387			
Calcium	ppm	ASTM D5185(m)		1898			
Phosphorus	ppm	ASTM D5185(m)	1270	976			
Zinc	ppm	ASTM D5185(m)	1370	1164			
Sulfur	ppm	ASTM D5185(m)		3051			
Lithium	ppm	ASTM D5185(m)		<1			
CONTAMINANTS	;	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	4			
Sodium	ppm	ASTM D5185(m)		6			
Potassium	ppm	ASTM D5185(m)	>20	4			
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.4			
Nitration	Abs/cm	ASTM D7624*	>20	7.5			
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.2			



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FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.7		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris Sand/Dirt	scalar	Visual*	NONE NONE	VLITE NONE		
Appearance	scalar scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.1	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.7		
GRAPHS						
Iron (ppm)				Lead (ppm)		
150				Severe		
00 - Severe				10		
50 Abnormal				Abnormal	***************************************	
0				0		
Apr11/24			Apr11/24	Apr11/24		Apr11/24
			Apr			Apr
Aluminum (ppm)			5	Chromium (p	pm)	
40 Severe				Severe		
20 Abnormal			E 3	Abnormal		
10				0		
0			<del>-</del>	0		4
Apr11/24			Apr11/24	Apr11/24		Apr11/24
Copper (ppm)			Ø	≤ Silicon (ppm)		⋖
50 7			4	10T		
40 Abnormal				Severe		
20			E 2	Abnormal		
10				0		
774				0 + 5/1		124
Apr11/24			Apr11/24	Apr11/24		Apr11/2 <sup>4</sup>
Viscosity @ 100°	С			Soot %		
Abnormal			6.	Severe		
16				Abnormal		
Abnormal			<sup>8</sup> 2	.0		
Abnormal				.0		
Apr11/24			Apr11/24	Apr11/24		Apr11/24.
Арт			Apr	Арг		Apri



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

: PP0000679 Lab Number : 02628647

Unique Number : 5761779

Received : 15 Apr 2024 **Tested** Diagnosed

: 15 Apr 2024

: 15 Apr 2024 - Wes Davis

Contact: David Littlejohn david.l.littlejohn@gmail.com

Test Package : MOB 1 ( Additional Tests: Visual ) To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

CA

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**DAVID LITTLEJOHN** 

BURLINGTON, ON