

WEAR	
CONTAMINATION	
FLUID CONDITION	NORMAL

Machine Id 58 Component Diesel Engine Fluid {not provided} (--- QTS) RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

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All component wear rates are normal.

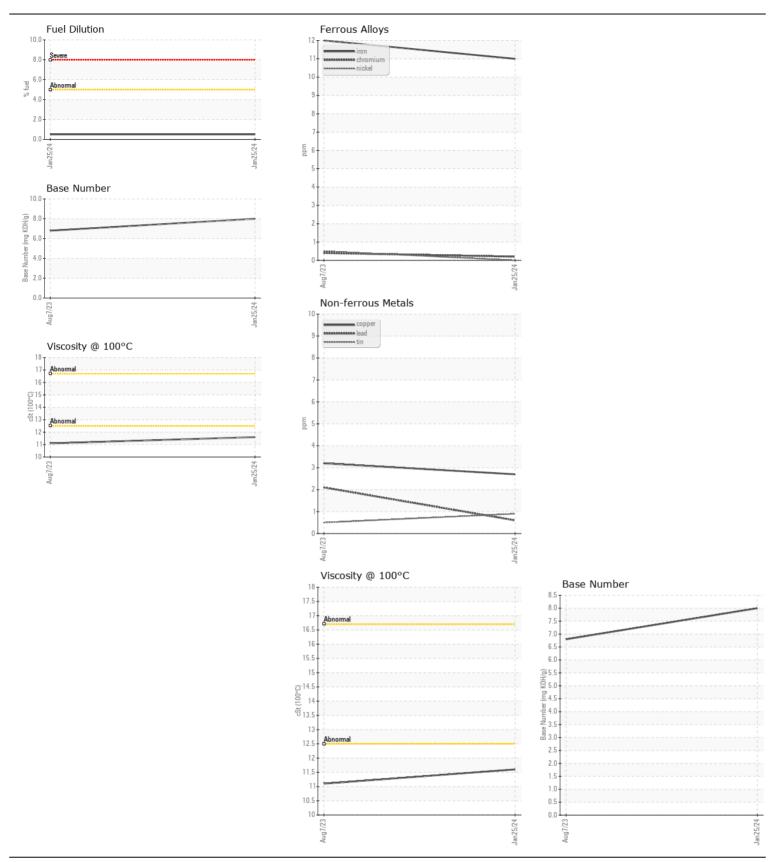
CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

FLU		00		1771	
FLU	עו		ND		

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.

Test UOM Method Limit/Ab Current History1 History2 Sample Number Client Info Z5 Jan 2024 77 Aug 2023 Machine Age mls Client Info 285280 144436 Oil Age mls Client Info 0 0 Oil Age mls Client Info 0 0 Oil Changed Client Info 0 0 Sample Status Client Info N/A N/A Sample Status Viant D5185m >100 11 12 Iron ppm ASTM D5185m >20 <1 <1 Silver ppm ASTM D5185m >30 0 0 Silver ppm ASTM D5185m >20 2 2 Corper ppm ASTM D5185m >30 3 3 Valaduminum ppm ASTM D5185m							
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Machine Age mis Client Info 285280 14436 Oil Age mis Client Info 0 0 Filter Age mis Client Info Changed Filter Changed Client Info N/A N/A Sample Status NORMAL NORMAL Iron ppm ASTM D5185m >20 <1 <1 Chromium ppm ASTM D5185m >20 <1 <1 Nickel ppm ASTM D5185m >20 <1 <1 Silver ppm ASTM D5185m >20 2 2 Aluminum ppm ASTM D5185m >20 2 2 Vanadium ppm ASTM D5185m >30 3 3 Vanadium ppm ASTM D5185m >25 5 5 Vanadium ppm ASTM D51	Sample Number		Client Info		TLY0001833	TLY0001587	
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Oil Changed Client Info Changed Changed	-	mls	Client Info		0	0	
Filter Changed Sample Status Client Info N/A N/A N/A N/A N/A Iron ppm ASTM D5185m >100 11 12 Iron ppm ASTM D5185m >20 <1 <1 Nickel ppm ASTM D5185m >20 <1 <1 Nickel ppm ASTM D5185m >20 2 2 Silver ppm ASTM D5185m >30 0 0 Lead ppm ASTM D5185m >40 <1 2 Vanadium ppm ASTM D5185m >30 3 3 Yanadium ppm ASTM D5185m >15 <1 0 Vanadium ppm ASTM D5185m >25 5 5 Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual	Filter Age	mls	Client Info		0	0	
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Tin ppm ASTM D5185m >15 <1	Copper		ASTM D5185m	>330	3	3	
Vanadium ppm ASTM D5185m <1			ASTM D5185m	>15	<1	<1	
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Fuel % ASTM D3524 >5 0.5 <1.0	Silicon	ppm	ASTM D5185m	>25	5	5	
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Glycol WC Method NEG NEG Soot % % *ASTM D7844 >3 0.3 0.3 Nitration Abs/cm *ASTM D7624 >20 8.1 8.4 Sulfation Abs/cm *ASTM D7415 >30 20.2 20.6 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NOR NORML NORML Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Boron ppm ASTM D5185m 23 22 Barium pm ASTM D5185m 51 Magnesium ppm ASTM D5185m <1 <1 <th>Fuel</th> <th>%</th> <th>ASTM D3524</th> <th>>5</th> <th>0.5</th> <th><1.0</th> <th></th>	Fuel	%	ASTM D3524	>5	0.5	<1.0	
Soot % % *ASTM D7844 >3 0.3 0.3 Nitration Abs/cm *ASTM D7624 >20 8.1 8.4 Sulfation Abs/.1mm *ASTM D7615 >30 20.2 20.6 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORM NORML NORML Modor scalar *Visual >0.2 NEG NEG Sodium ppm ASTM D5185m 23 22 Boron ppm ASTM D5185m 52 50 Malganesium ppm ASTM D5185m <1<	Water		WC Method	>0.2	NEG	NEG	
Nitration Abs/cm *ASTM D7624 >20 8.1 8.4 Sulfation Abs/.1mm *ASTM D7415 >30 20.2 20.6 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Sodium ppm ASTM D5185m 23 22 Boron ppm ASTM D5185m 0 0 Malganese ppm ASTM D5185m <1 <1 Magnesium	Glycol		WC Method		NEG	NEG	
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Base Number (BN) mg KOH/g ASTM D2896 8.0 6.8	Sulfur	ppm	ASTM D5185m				
		Abs/.1mm		>25			
Visc @ 100°C cSt ASTM D445 (11.6 / 11.1	Base Number (BN)	mg KOH/g	ASTM D2896		8.0	6.8	
	Visc @ 100°C	cSt	ASTM D445		11.6	11.1	



COCKEYS ENTERPRISES Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : TLY0001833 Received : 22 Feb 2024 3300 TRANSWAY RD Lab Number : 06097501 Tested : 26 Feb 2024 HALETHORP, MD Unique Number : 10890354 Diagnosed : 26 Feb 2024 - Sean Felton US 21227 Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN) Contact: FRANK ROLNIAK Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. frank.rolniak@cockeys.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Contact/Location: FRANK ROLNIAK - COCHAL