

WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL ATTENTION

Machine Id **18356**

Component Diesel Engine

Test UOM Method Unitable Courrent W0085254 History	DIESEL ENGINE OIL SAE 15W40 (QTS)							
Machine Age Miss Client Info Mosse2254	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
at the next service interval to monitor. Machine Age mls Client Info 0 0 0 0 0 0 0 0 0	Oil and filter change at the time of sampling has been noted. Resample	Sample Number		Client Info		WC0852254		
Machine Age mis Client Info 0		Sample Date		Client Info		21 Dec 2023		
Filter Age mls Client Info Changed C		Machine Age	mls	Client Info		45676		
Oil Changed Cilent Info Changed Change		Oil Age	mls	Client Info		0		
Filter Changed Client Info Changed Client Info TEXTHOM		Filter Age	mls	Client Info		0		
Name		Oil Changed		Client Info		Changed		
Iron		Filter Changed		Client Info		Changed		
All component wear rates are normal. Chromium ppm ASTM Disis Astm Chromium ppm ASTM Disis Astm Chromium ppm ASTM Disis Astm Chromium ppm ASTM Disis Astm Astm Chromium ppm ASTM Disis Astm Astm		Sample Status				ATTENTION		
All component wear rates are normal. Chromium ppm ASTM Disis Astm Chromium ppm ASTM Disis Astm Chromium ppm ASTM Disis Astm Chromium ppm ASTM Disis Astm Astm Chromium ppm ASTM Disis Astm Astm	WEAR	Iron	ppm	ASTM D5185m	>100	37		
Nickel ppm ASTM D5185m >4 <1		Chromium	ppm	ASTM D5185m	>20	4		
Titanium ppm ASTM 05185m 3 3 3 3 3 3 3 3 3		Nickel				<1		
Silver ppm ASTM D5185m >20 89		Titanium		ASTM D5185m		0		
Aluminum ppm ASTM D5185m >20 89					>3	-		
Lead								
Copper								
Tin								
Vanadium ppm ASTM D5185m NONE NONE								
White Metal Scalar *Visual NONE NO								
Vellow Metal Scalar Visual NONE NONE CONTAMINATION Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Test for glycol is negative. Silicon ppm ASTM D5185m >25 5 Potassium ppm ASTM D5185m >20 191 Water (WC Method >0.2 NEG Silicon ppm ASTM D5185m >20 191 Water (WC Method >0.2 NEG Silicon ppm ASTM D5185m >20 NEG Silicon ppm ASTM D5185m >20 NEG Silicon ppm ASTM D5185m >30 NEG Silicon ppm ASTM D5185m >4 NEG Silicon ppm ASTM D5185m >4 NEG Silicon ppm ASTM D5185m >4 NEG Silicon ppm ASTM D5185m >4 NEG Silicon ppm ASTM D5185m >4 NEG Silicon ppm ASTM D5185m >4 NEG Silicon ppm ASTM D5185m >4 NEG Silicon ppm ASTM D5185m >4 NEG Silicon ppm ASTM D5185m >4 NEG					NONE	-		
Potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Test for glycol is negative.						_		
Potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Test for glycol is negative.	CONTAMINATION	Silicon	nnm	ASTM D5185m	-25	5		
Fuel ontent negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Test for glycol is negative. Fuel	Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new							
Mater WC Method Sold Sold Sold Wc Method Sold So								
Glycol WC Method NEG Soot %			70					
Soot %					>0.2			
Nitration		-	0/		. 0			
Sulfation Abs/.tmm *ASTM D7415 >30 20.9 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML								
Silt scalar *Visual NONE NONE NONE								
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NORML NORML NOR								
Sand/Dirt Scalar *Visual NONE NORML Appearance Scalar *Visual NORML NORML								
Appearance								
Codor Scalar *Visual NORML NORML NORML Emulsified Water Scalar *Visual >0.2 NEG								
Emulsified Water scalar *Visual >0.2 NEG		• •						
Sodium ppm ASTM D5185m >158 2								
Boron ppm ASTM D5185m 250 10 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 10 0 Manganese ppm ASTM D5185m 100 77 Magnesium ppm ASTM D5185m 450 882 Calcium ppm ASTM D5185m 3000 1148 Phosphorus ppm ASTM D5185m 1150 1002 Zinc ppm ASTM D5185m 1350 1173 Sulfur ppm ASTM D5185m 4250 2378 Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8								
Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 77 Manganese ppm ASTM D5185m 100 77 Magnesium ppm ASTM D5185m 450 882 Calcium ppm ASTM D5185m 3000 1148 Phosphorus ppm ASTM D5185m 1150 1002 Zinc ppm ASTM D5185m 1350 1173 Sulfur ppm ASTM D5185m 4250 2378 Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8	FLUID CONDITION		ppm	ASTM D5185m	>158	2		
there is suitable alkalinity remaining in the oil. Molybdenum ppm ASTM D5185m 100 77 Manganese ppm ASTM D5185m 450 882 Calcium ppm ASTM D5185m 3000 1148 Phosphorus ppm ASTM D5185m 1150 1002 Zinc ppm ASTM D5185m 1350 1173 Sulfur ppm ASTM D5185m 4250 2378 Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8	•	Boron	ppm	ASTM D5185m	250	10		
Molybdenum ppm ASTM D5185m 100 77 Manganese ppm ASTM D5185m 450 882 Magnesium ppm ASTM D5185m 3000 1148 Calcium ppm ASTM D5185m 1150 1002 Phosphorus ppm ASTM D5185m 1350 1173 Zinc ppm ASTM D5185m 4250 2378 Sulfur ppm ASTM D7414 >25 18.1 Dxidation ASTM D896 8.5 7.8		Barium	ppm			0		
Magnesium ppm ASTM D5185m 450 882 Calcium ppm ASTM D5185m 3000 1148 Phosphorus ppm ASTM D5185m 1150 1002 Zinc ppm ASTM D5185m 1350 1173 Sulfur ppm ASTM D5185m 4250 2378 Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8		Molybdenum	ppm	ASTM D5185m	100	77		
Calcium ppm ASTM D5185m 3000 1148 Phosphorus ppm ASTM D5185m 1150 1002 Zinc ppm ASTM D5185m 1350 1173 Sulfur ppm ASTM D5185m 4250 2378 Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8		Manganese	ppm	ASTM D5185m		1		
Phosphorus ppm ASTM D5185m 1150 1002 Zinc ppm ASTM D5185m 1350 1173 Sulfur ppm ASTM D5185m 4250 2378 Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8		Magnesium	ppm	ASTM D5185m	450	882		
Zinc ppm ASTM D5185m 1350 1173 Sulfur ppm ASTM D5185m 4250 2378 Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8		Calcium	ppm	ASTM D5185m	3000	1148		
Sulfur ppm ASTM D5185m 4250 2378 Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8		Phosphorus	ppm	ASTM D5185m	1150	1002		
Oxidation Abs/.1mm *ASTM D7414 >25 18.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8		Zinc	ppm	ASTM D5185m	1350	1173		
Base Number (BN) mg KOH/g ASTM D2896 8.5 7.8		Sulfur	ppm	ASTM D5185m	4250	2378		
		Oxidation						
Visc @ 100°C cSt ASTM D445 14.4 11.8		Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.8		
		Visc @ 100°C	cSt	ASTM D445	14.4	11.8		





Laboratory Sample No. Lab Number **Unique Number**

: WC0852254 : 06063372 : 10834754

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 17 Jan 2024 Diagnosed

: 24 Jan 2024 Diagnostician : Doug Bogart **Test Package**: FLEET (Additional Tests: FuelDilution, PercentFuel)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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