WEAR CONTAMINATION FLUID CONDITION

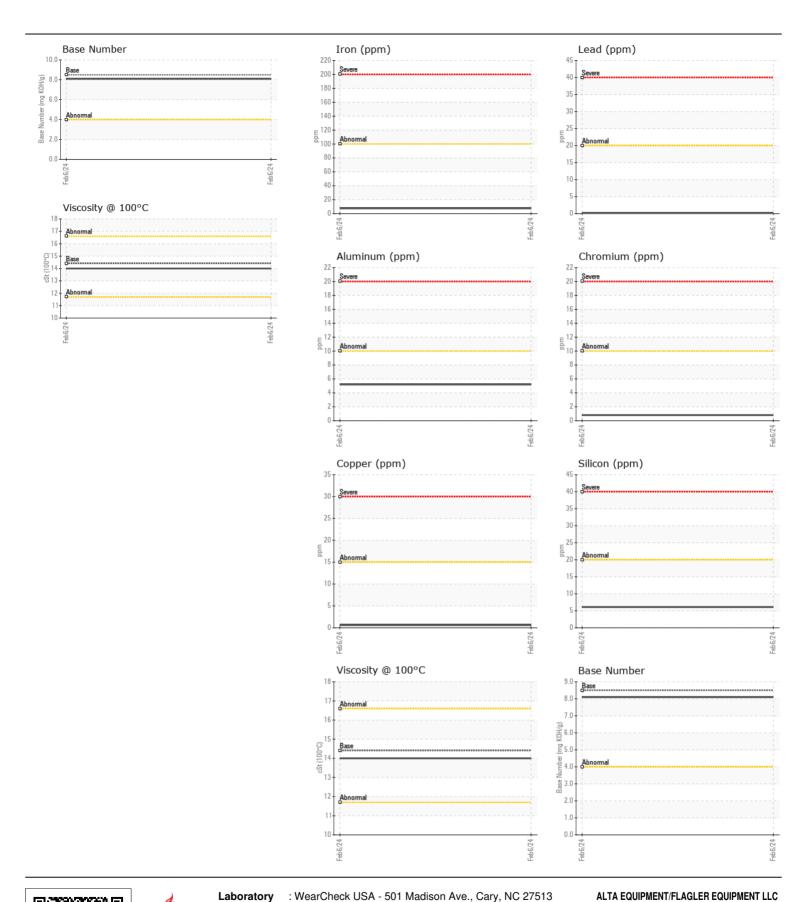
NORMAL NORMAL NORMAL

Area [9743 HERC]

VOLVO L70H 623001

Component Diesel Engine

Machino Age hrs Client into 2097	DIESEL ENGINE OIL SAE 15W	40 (QTS)						
Resample at the next service interval to monitor. Sample Number Cilient Info Coperation Coperation	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	Historv1	Historv2
Resample at the next service interval to monitor.	TECOMMENDATION							-
Machine Age	Resample at the next service interval to monitor.							
Coll Age			hrs					
Filter Age		Oil Age	hrs			0		
Oil Changed Cilent Info Changed Cilent Info Changed Changed Cilent Info Changed Changed Cilent Info Changed Chan				Client Info				
Filter Changed Sample Status Sample Stat								
Nome				Client Info				
Iron		_				_		
All component wear rates are normal. Chromium ppm ASTIN D5165m 10 <1								
Nickel ppm ASTM D5165m -10 -1	WEAR	Iron	ppm	ASTM D5185m	>100	8		
Titanium ppm ASTM Disides 9 Silver ppm ASTM Disides 9 Aluminum ppm ASTM Disides 2 0 Aluminum ppm ASTM Disi	All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	<1		
Silver		Nickel	ppm	ASTM D5185m	>10	<1		
Aluminum ppm ASTM DS185m >10 5 Copper ppm ASTM DS185m >20 <1 Copper ppm ASTM DS185m >15 <1 Copper ppm ASTM DS185m >15 <1 Tin ppm ASTM DS185m >10 <1 Vanadium ppm ASTM DS185m >10 <1 White Metal Scalar "Visual NONE NONE White Metal Scalar "Visual NONE NONE Vanadium ppm ASTM DS185m >20 6 Potassium ppm ASTM DS185m >20 6 Potassium ppm ASTM DS185m >20 6 Valuer WC Method >0.1 NEG Glycol WC Method >0.1 NEG Glycol WC Method >0.1 NEG Glycol WC Method >0.1 NEG Sulfation Abs/am "ASTM D724b >3 0.1		Titanium	ppm	ASTM D5185m		9		
Lead		Silver	ppm	ASTM D5185m	>2	0		
Copper		Aluminum	ppm	ASTM D5185m	>10	5		
Time ppm ASTM D5185m >10 -1		Lead	ppm	ASTM D5185m	>20	<1		
Vanadium ppm ASTM D5185m NONE NONE White Metal scalar Visual NONE NONE Water Stalar Visual NONE NONE Water WC Method Stalar		Copper	ppm	ASTM D5185m	>15	<1		
White Metal Yellow Metal Scalar "Visual NONE NONE NONE NONE NONE NONE NONE NON		Tin	ppm	ASTM D5185m	>10	<1		
Silicon		Vanadium	ppm	ASTM D5185m		0		
Silicon ppm ASTM D5185m >20 6		White Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m 20 2		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m 20 2	CONTAMINATION There is no indication of any contamination in the oil.	Silicon	nnm	ΔSTM D5185m	~20	6		
There is no indication of any contamination in the oil. Fuel WC Method >6.0 <1.0								
Water Glycol WC Method NEG Suff Mode NEG Nitration Abs/rm *ASTM D7844 >3 0.1 Nitration Abs/rm *ASTM D7845 >30 18.5 NoNE No			ррпп					
Glycol								
Soot %					<i>></i> 0.1			
Nitration Abs/cm *ASTM D7624 >20 5.7			0/2		~3			
Sulfation Abs/.1mm *ASTM D7415 >30 18.5								
Silt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML								
Debris Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE								
Sand/Dirt Scalar *Visual NONE NONE Appearance Scalar *Visual NORML								
Appearance								
Codor Scalar *Visual NORML N								
Emulsified Water scalar *Visual >0.1 NEG								
Sodium ppm ASTM D5185m >158 0								
Boron ppm ASTM D5185m 250 251 Barium ppm ASTM D5185m 100 00 Molybdenum ppm ASTM D5185m 100 55 Magnesium ppm ASTM D5185m 450 607 Magnesium ppm ASTM D5185m 3000 1425 Phosphorus ppm ASTM D5185m 150 845 Zinc ppm ASTM D5185m 1350 1000 Sulfur ppm ASTM D5185m 4250 3258 Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1								
Boron ppm ASTM D5185m 250 251 Barium ppm ASTM D5185m 100 00 Molybdenum ppm ASTM D5185m 100 55 Magnesium ppm ASTM D5185m 450 607 Magnesium ppm ASTM D5185m 3000 1425 Phosphorus ppm ASTM D5185m 150 845 Zinc ppm ASTM D5185m 1350 1000 Sulfur ppm ASTM D5185m 4250 3258 Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1	FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	0		
Oil. The condition of the oil is suitable for further service. Molybdenum ppm ASTM D5185m 100 55 Manganese ppm ASTM D5185m 450 607 Calcium ppm ASTM D5185m 3000 1425 Phosphorus ppm ASTM D5185m 1350 1000 Zinc ppm ASTM D5185m 4250 3258 Sulfur ppm ASTM D7144 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1	The BN result indicates that there is suitable alkalinity remaining in the	Boron	ppm	ASTM D5185m	250	251		
Molybdenum ppm ASTM D5185m 100 55 Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 450 607 Calcium ppm ASTM D5185m 3000 1425 Phosphorus ppm ASTM D5185m 1150 845 Zinc ppm ASTM D5185m 1350 1000 Sulfur ppm ASTM D5185m 4250 3258 Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1		Barium	ppm	ASTM D5185m	10	0		
Magnesium ppm ASTM D5185m 450 607 Calcium ppm ASTM D5185m 3000 1425 Phosphorus ppm ASTM D5185m 1150 845 Zinc ppm ASTM D5185m 1350 1000 Sulfur ppm ASTM D5185m 4250 3258 Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1		Molybdenum	ppm	ASTM D5185m	100	55		
Calcium ppm ASTM D5185m 3000 1425 Phosphorus ppm ASTM D5185m 1150 845 Zinc ppm ASTM D5185m 1350 1000 Sulfur ppm ASTM D5185m 4250 3258 Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1		Manganese	ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 1150 845 Zinc ppm ASTM D5185m 1350 1000 Sulfur ppm ASTM D5185m 4250 3258 Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1		Magnesium	ppm	ASTM D5185m	450	607		
Zinc ppm ASTM D5185m 1350 1000 Sulfur ppm ASTM D5185m 4250 3258 Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1		Calcium	ppm	ASTM D5185m	3000	1425		
Sulfur ppm ASTM D5185m 4250 3258 Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1		Phosphorus	ppm	ASTM D5185m	1150	845		
Oxidation Abs/.1mm *ASTM D7414 >25 12.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1		Zinc	ppm	ASTM D5185m	1350	1000		
Base Number (BN) mg KOH/g ASTM D2896 8.5 8.1		Sulfur	ppm	ASTM D5185m	4250	3258		
		Oxidation	Abs/.1mm	*ASTM D7414	>25	12.8		
Visc @ 100°C cSt ASTM D445 14.4 14.0		Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.1		
100 C 100 C 100 C 100 C 100 C		Visc @ 100°C	cSt	ASTM D445	14.4	14.0		







Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: VCP439138 Lab Number : 06085192 Unique Number : 10872637

Tested Diagnosed Test Package : MOB 1 (Additional Tests: TBN)

: 12 Feb 2024

: 12 Feb 2024 - Wes Davis

: 09 Feb 2024

US 32824 Contact: Robert LaPlante robert.laplante@altg.com

9601 BOGGY CREEK RD

ORLANDO, FL

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. T: (407)508-9736 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (407)659-8720

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