

## CONSTRUCTION EQUIPMENT ACEROS AMERICA VOLVO L70F 62286 - DIESEL ENGINE



Sample No: VCP424521

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

Job No: ACEROS AMERICA

Some   Some   Some   Some   Some   Some   Some   Some   Some   Status   NORMAL   NORMAL   NORMAL   NORMAL   Some   Some   Some   Status   NORMAL   NORMAL   NORMAL   Some   Som						
VCP424521   VCP389832   VCE67204		NEODMATION				
Sample Date   29 Jun 2023   20 Oct 2022   11 Jun 2010     Machine Hours   3167   2500   253     Oil Hours   500   500   0     Oil Changed   Changed   Changed   Changed   Not Changed     Oil Changed   Normal   NORMAL   NORMAL   NORMAL     Oil CONTION	_	AFURMATIUN				
Machine Hours   3167   2500   253     Oil Hours   500   500   0   0     Oil Changed   Changed   Changed   Not Changed     Sample Status   NORMAL   NORMAL   NORMAL   NORMAL      VOLVO   OIL CONDITION   Visc @ 100°C   CSt   12.6   13.6   13.27     Base Number (BN)   mg KOH/g   9.4   7.2     Oxidation (PA)   %   80   75   48      VOLVO   CONTAMINATION   Soot %   %   0.4   0.7   0     Nitration (PA)   %   73   96   50     Sulfation (PA)   %   63   72   53     Sulfation (PA)   %   63   72   53     Sulfation (PA)   %   <   1.0   <-1.0   <   Silicon   ppm   9   14   38     Sodium   ppm   2   3   5     Potassium   ppm   0   <-1   0      VOLVO   WEAR METALS   Iron   ppm   26   50   33     Copper   ppm   2   6   14     Lead   ppm     1   2   0     Lead   ppm   0   <-1   5   6     Tin   ppm   1   2   0     Aluminum   ppm   2   4   6   6     Chromium   ppm   34   18   80     Nickel   ppm   0   <-1   <   Silver   ppm   0   0   0     Silver   ppm   0   0   0   0   0   0   Manganese   ppm   0   0   0   0   0   0   0   Manganese   ppm   0   0   0   0   0   0   0   Manganese   ppm   0   0   0   0   0   0   0   Manganese   potation   p	•					
Oil Hours         500         500         0            Oil Changed         Changed         Changed         Not Changed            Sample Status         NORMAL         NORMAL         NORMAL         NORMAL            Voice         100°C         CSt         112.6         113.6         113.27            Base Number (BN)         mg KOH/g         9.4         17.2             Oxidation (PA)         80         75         48            CONTAMINATION         Soulfation (PA)         63         72         53            Soulfation (PA)         63         72         53            Sulfation (PA)         63         72         53            Fuel         6         NEG         NEG         NEG         NEG           Fuel         6         1.0         <            Solidium         ppm         9         14         38            Sodium         ppm         2         3         5            Potassium         ppm         2         6         14 <td>Sample Date</td> <td></td> <td>29 Jun 2023</td> <td>20 Oct 2022</td> <td>11 Jun 2010</td> <td></td>	Sample Date		29 Jun 2023	20 Oct 2022	11 Jun 2010	
Changed   Changed   Changed   Not Changd   Changed   Normal   Normal   Normal   Changed   Changed   Normal   Normal   Changed   Changed   Normal   Changed   Changed   Changed   Normal   Changed   Changed	Machine Hours		3167			
NORMAL   N	Oil Hours		500		Ü	
Voice   100°C   CSt   12.6   13.6   13.27	Oil Changed		Changed	Changed	Not Changd	
OIL CONDITION           Visc @ 100°C         cSt         12.6         13.6         13.27            Base Number (BN)         mg KOH/g         9.4         7.2             Oxidation (PA)         %         80         75         48            CONTAMINATION         Soot %         %         0.4         0.7         0            Nitration (PA)         %         73         96         50            Sulfation (PA)         %         63         72         53            Glycol         %         NEG         NEG         NEG            Fuel         %         <1.0	Sample Status		NORMAL	NORMAL	NORMAL	
OIL CONDITION           Visc @ 100°C         cSt         12.6         13.6         13.27            Base Number (BN)         mg KOH/g         9.4         7.2             Oxidation (PA)         %         80         75         48            CONTAMINATION         Soot %         %         0.4         0.7         0            Nitration (PA)         %         73         96         50            Sulfation (PA)         %         63         72         53            Glycol         %         NEG         NEG         NEG            Fuel         %         <1.0						
Base Number (BN)   mg KOH/g   m	OIL CONDI	TION				
Base Number (BN)   mg KOH/g   m	Visc @ 100°C	cSt	<b>12.6</b>	<b>13.6</b>	■ 13.27	
Contamination   Soot %   %   0.4   0.7   0   0   0   0   0   0   0   0   0	Base Number (BN)	mg KOH/g	■9.4	<b>7.2</b>		
CONTAMINATION  Soot %	Oxidation (PA)		80	75	<b>48</b>	
CONTAMINATION						
Soot %	CONTAMIN	JATION				
Nitration (PA)	_	_				
Sulfation (PA) % 63 72 53 Glycol % NEG NEG NEG NEG Fuel % <1.0 <1.0 <1.0 Silicon ppm 9 14 38 Sodium ppm 0 14 38 Potassium ppm 0 14 0  WEAR METALS  Iron ppm 26 50 33 Copper ppm 2 16 14 Lead ppm 1 1 5 6 6 Tin ppm 1 1 2 0 0 Aluminum ppm 2 1 0 6 Chromium ppm 2 1 0 6 Shiver ppm 0 <1 1 0 0 Silver ppm 0 <1 <1 0 0 Silver ppm 0 <1 <1 Silver ppm 0 0 0 0 0 0 Manganese ppm 0 <1 1 5 Silver ppm 0 0 0 0 0 0  Manganese ppm 0 <1 1 5						
NEG	, ,		-			
Fuel % <1.0 <1.0 <1.0 <	` ,			. –	_	
Silicon	•					
Sodium   ppm   2						
Potassium         ppm         0         <1         0            WEAR METALS           Iron         ppm         26         50         33            Copper         ppm         2         6         14            Lead         ppm         1         5         6            Tin         ppm         1         2         0            Aluminum         ppm         2         4         6            Chromium         ppm         34         18         80            Molybdenum         ppm         34         18         80            Nickel         ppm         0         <1						
WEAR METALS           Iron         ppm         26         50         33            Copper         ppm         2         6         14            Lead         ppm         1         5         6            Tin         ppm         1         2         0            Aluminum         ppm         2         4         6            Chromium         ppm         34         18         80            Molybdenum         ppm         34         18         80            Nickel         ppm         0         <1		ppm	_		_	
WEAR METALS           Iron         ppm         26         50         33            Copper         ppm         2         6         14            Lead         ppm         1         5         6            Tin         ppm         1         2         0            Aluminum         ppm         2         4         6            Chromium         ppm         <1	Potassium	ppm	<b>0</b>	<u></u> <1	<b>0</b>	
WEAR METALS           Iron         ppm         26         50         33            Copper         ppm         2         6         14            Lead         ppm         1         5         6            Tin         ppm         1         2         0            Aluminum         ppm         2         4         6            Chromium         ppm         <1						
Copper         ppm         2         6         14            Lead         ppm         <1	WEAR ME	TALS				
Lead         ppm         <1	Iron	ppm	<b>2</b> 6	<b>5</b> 0	■33	
Lead         ppm         <1	Copper	ppm	<b>2</b>	<b>6</b>	<b>1</b> 4	
Tin         ppm         1         2         0            Aluminum         ppm         2         4         6            Chromium         ppm         <1         2         2            Molybdenum         ppm         34         18         80            Nickel         ppm         0         <1         0            Titanium         ppm         0         <1         <1            Silver         ppm         0         0         0            Manganese         ppm         <1         1         5	Lead		<b>■ &lt;1</b>		<b>6</b>	
Chromium         ppm         34         2         2            Molybdenum         ppm         34         18         80            Nickel         ppm         0         <1	Tin	ppm	<b>1</b>	<b>2</b>	<b>0</b>	
Molybdenum         ppm         34         18         80            Nickel         ppm         0         <1         0            Titanium         ppm         0         <1         <1            Silver         ppm         0         0         0            Manganese         ppm         <1         1         5	Aluminum	ppm	<b>2</b>	<b>4</b>	<b>6</b>	
Nickel         ppm         0         <1         0            Titanium         ppm         0         <1	Chromium	ppm	<b>■</b> <1	2	<b>2</b>	
Titanium         ppm         0         <1         <1            Silver         ppm         0         0         0            Manganese         ppm         <1         1         5	Molybdenum	ppm	<b>■34</b>	<b>1</b> 8	■80	
Titanium         ppm         0         <1         <1            Silver         ppm         0         0         0            Manganese         ppm         <1         1         5	Nickel	ppm	■0	<b>-</b> <1	<b>0</b>	
Manganese ppm <b>■ &lt;1</b> ■1 5	Titanium		0	<1	<1	
	Silver	ppm	<b>■</b> 0	0	0	
<b>Vanadium</b> ppm <b>&lt;1</b> 0 0	Manganese	ppm	<b>■ &lt;1</b>	<b>1</b>	5	
	Vanadium	ppm	<1	0	0	

**1485** 

**644** 

889

**0** 

**20** 

700

**1533** 

**465** 

**1337** 

**1154** 

**-** < 1

■374



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## 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.

 Depot:
 VOLVO0093

 Unique No:
 10551680

 Signed:
 Wes Davis

 Report Date:
 12 Jul 2023

**1479** 

**500** 

**961** 

**792** 

**0** 

**27** 

**ADDITIVES** 

ppm

ppm

ppm

ppm

ppm

ppm

Calcium

Zinc

Barium

Boron

Magnesium

Phosphorus



## **CONSTRUCTION EQUIPMENT**





