



## DUNBECK 500-257 JC VOLVO PENTA A589620 - STARBOARD DIESEL ENGINE

Sample No: VPA057020

Oil Type: SHELL ROTELLA T 15W40

Base Number (BN) mg KOH/g					
Sample Date   15 Dec 2023	SAMPLE INFORMAT	<b>TION</b>			
Sample Date   15 Dec 2023			VD4057020		
Machine Hours	•				
Oil Changed	•				
Changed   Chan					
NORMAL					
Dil CONDITION   DIL CONDITIO	_		_		 
Visc @ 100°C			1101111111111	_	
Base Number (BN) mg KOH/g	OIL CONDITION				
Contamination   Contaminatio   Contamination   Contamination   Contamination   Contamination	Visc @ 100°C	cSt	<b>14.5</b>		 
Water   %   NEG               Soot %   %   0.6             Nitration (PA)   %   65           Sulfation (PA)   %   59           Sulfation (PA)   %   59           Sulfation (PA)   %   NEG           Sulfation (PA)   %   Sodium   PPM   1           Sulfation (PA)   NEG   PPM	Base Number (BN)	mg KOH/g	<b>■</b> 7.9		 
Ned	Oxidation (PA)	%	68		 
Ned	CONTAMINATION				
Soot %		%	NEG		 
Nitration (PA) % 655					
Sulfation (PA)					
Silicon   Sili					
Fuel % < <1.0 Silicon ppm					
Silicon ppm	-				
Sodium					
Potassium         ppm         5              WEAR METALS           Iron         ppm         12              Copper         ppm         7              Lead         ppm         0              Itin         ppm         2              Aluminum         ppm         10              Molybdenum         ppm         10              Molybdenum         ppm         1              Nickel         ppm         1              Silver         ppm         0              Manganese         ppm         1              Vanadium         ppm         1951              ADDITIVES           Calcium         ppm         146 <t< td=""><td></td><td></td><th></th><td></td><td> </td></t<>					 
Tron	Potassium				 
Tron	WEAD METALS				
Copper	WEAK METALS				
Lead       ppm       0            Tin       ppm       <1	Iron	ppm	<b>12</b>		 
Tin ppm   <1	Copper	ppm	<b>■7</b>		 
Aluminum ppm 2	Lead	ppm	■0		 
Chromium ppm	Tin	ppm	<b>■&lt;1</b>		 
Molybdenum         ppm         10  -	Aluminum	ppm	<b>2</b>		 
Nickel         ppm         1 <td>Chromium</td> <td>ppm</td> <th></th> <td></td> <td> </td>	Chromium	ppm			 
Titanium ppm	Molybdenum	ppm			 
Silver         ppm         0              Manganese         ppm         <1		ppm			 
Manganese         ppm               Vanadium         ppm         <1	Titanium		_		 
Vanadium         ppm         <1	Silver	ppm	_		 
ADDITIVES  Calcium ppm 1951  Magnesium ppm 146  Zinc ppm 1162  Phosphorus ppm 959  Barium ppm 0	Manganese		_		 
Calcium         ppm         1951              Magnesium         ppm         146              Zinc         ppm         1162              Phosphorus         ppm         959              Barium         ppm         0	Vanadium	ppm	<1		 
Magnesium         ppm         146              Zinc         ppm         1162              Phosphorus         ppm         959              Barium         ppm         0	ADDITIODA				
Magnesium         ppm         146              Zinc         ppm         1162              Phosphorus         ppm         959              Barium         ppm         0	Calcium	ppm	<b>1951</b>		 
Zinc         ppm         1162              Phosphorus         ppm         959              Barium         ppm         0	Magnesium				 
Phosphorus         ppm         ■959 <t< td=""><td>Zinc</td><td></td><th><b>1162</b></th><td></td><td> </td></t<>	Zinc		<b>1162</b>		 
Barium ppm <b>0</b>	Phosphorus		<b>959</b>		 
Boron ppm <b>125</b>	Barium	ppm	<b>0</b>		 
	Boron	ppm	<b>125</b>		 

## **Outstanding Marine**

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## Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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:VP153685Unique No:10816313Signed:Sean FeltonReport Date:04 Jan 2024

## **OIL ANALYSIS REPORT**



