



## MTU 512100123 - STARBOARD DIESEL ENGINE

Sample No: VPA044290

Oil Type: MOBIL HD 15W40

SAMPLE INFORMAT	TION			
		VD4044200		
Sample Number		VPA044290	 	
Sample Date		31 Aug 2023	 	
Machine Hours		301	 	
Oil Hours		0	 	
Oil Changed		Not Changd	 	
Sample Status		NORMAL	 	
OIL CONDITION				
Visc @ 100°C	cSt	<b>13.6</b>	 	
Base Number (BN)	mg KOH/g	<b>■7.6</b>	 	
Oxidation (PA)	%	59	 	
` '				
CONTAMINATION				
Soot %	%	■0.3	 	
Nitration (PA)	%	54	 	
Sulfation (PA)	%	56	 	
Glycol	%	NEG	 	
Fuel	%	<1.0	 	
Silicon		<b>□</b> 4		
	ppm	_		
Sodium	ppm	<b>2</b>	 	
Potassium	ppm	<b>2</b>	 	
WEAR METALS				
Iron	ppm	<b>14</b>	 	
Copper	ppm	<b>■</b> 3	 	
Lead	ppm	□0	 	
Tin	ppm	<b>■</b> <1	 	
Aluminum	ppm	■3	 	
Chromium	ppm	<b>■</b> <1	 	
Molybdenum		<b>■51</b>	 	
Nickel	ppm	<b>0</b>	 	
Titanium	ppm	_		
	ppm	0		
Silver	ppm	<b>0</b>	 	
Manganese	ppm	<1	 	
Vanadium	ppm	0	 	
ADDITIVES				
Calcium	ppm	<b>1753</b>	 	
Magnesium	ppm	<b>262</b>	 	
Zinc	ppm	<b>1258</b>	 	
Phosphorus	ppm	<b>1009</b>	 	
Barium	ppm	<b>■</b> 0	 	
Boron		<b>359</b>	 	
DOIOII	ppm		 	

## **SMART DIESEL SERVICE**

PLANTATION, FL US 33325 Contact: ANDRES GARMENDIA smartdieselservice@gmail.com T: (954)258-8100 F:

102 NW 133RD AVE, UNIT 103

## Diagnosis

No corrective action is recommended at this time. 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 acceptable for the time in service.

Depot:VPSMAPLAUnique No:10631746Signed:Doug BogartReport Date:05 Sep 2023

## **OIL ANALYSIS REPORT**



