

## JON PAGEL [DANIEL/503101] VOLVO PENTA 51220307409 - INBOARD Component

## **Starboard Gearbox**

# TEXACO TEXACO HAVOLINE ATF MD-3 (4 QTS)

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No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### **WEAR**

All component wear rates are normal.

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#### CONTAMINATION

There is no indication of any contamination in the oil.

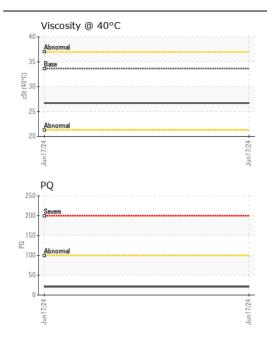
### FLUID CONDITION

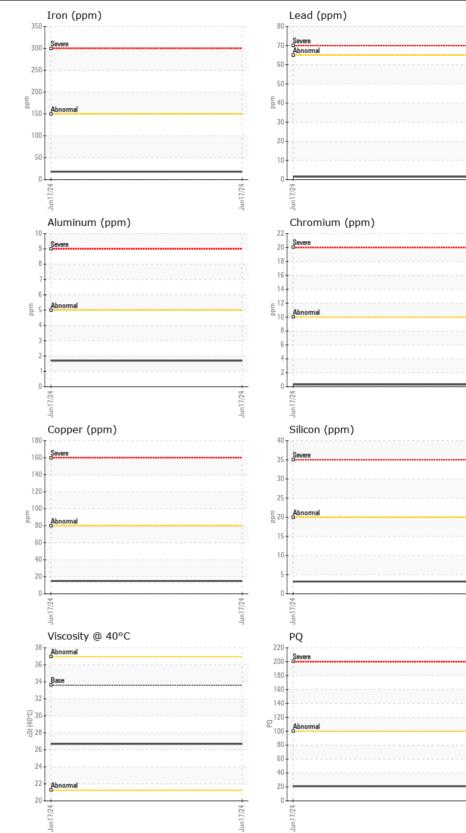
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA053124		
Sample Date		Client Info		17 Jun 2024		
Machine Age	hrs	Client Info		535		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				NORMAL		
PQ		ASTM D8184		21		
Iron	ppm	ASTM D0104 ASTM D5185m	>150	18		
Chromium		ASTM D5185m	>10	-10 <1		
Nickel	ppm	ASTM D5185m	>10	<1		
	ppm	ASTM D5185m	>10			
Titanium Silver	ppm			<1		
	ppm	ASTM D5185m	-	<1		
Aluminum	ppm	ASTM D5185m	>5	2		
Lead	ppm	ASTM D5185m	>65	2		
Copper	ppm	ASTM D5185m	>80	15		
Tin	ppm	ASTM D5185m	>8	<1		
Vanadium	ppm	ASTM D5185m		<1		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>20	3		
Potassium	ppm	ASTM D5185m	>20	1		
Water	1-1-					
		WC Method	>0.2	NEG		
	scalar	WC Method *Visual	>0.2 NONE	NEG NONE		
Silt	scalar scalar	*Visual	NONE	NONE		
Silt Debris	scalar	*Visual *Visual	NONE NONE	NONE		
Silt Debris Sand/Dirt	scalar scalar	*Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE		
Silt Debris Sand/Dirt Appearance	scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NORML	NONE NONE NONE NORML		  
Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORE NORML		
Silt Debris Sand/Dirt Appearance	scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NORML	NONE NONE NONE NORML		  
Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORE NORML		  
Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML NEG	   	
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar scalar ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1	   	
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 59		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 59 0		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 59 0 <1		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar scalar ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 59 0 <1 <1		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar scalar scalar ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 59 0 <1 <1 <1 6		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 59 0 <1 <1 <1 6 57		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 59 0 <1 <1 <1 6 57 181		<t< th=""></t<>
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Manganese Magnesium Calcium Phosphorus Zinc	scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 59 0 <1 <1 <1 6 57 181 32		

Report Id: VP794951 [WUSCAR] 06220065 (Generated: 06/30/2024 16:27:33) Rev: 1

Contact/Location: WILLOW YANARELLA - VP794951





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Endor Marine LLC - Coastal Marine - 152124 Sample No. Received : 25 Jun 2024 4300 11th Ave. NW : VPA053124 Lab Number : 06220065 Tested SEATTLE, WA : 26 Jun 2024 Unique Number : 11098262 : 27 Jun 2024 - Sean Felton US 98107 Diagnosed Test Package : MOB 1 (Additional Tests: PQ) Contact: WILLOW YANARELLA Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. service@coastalmarineengine.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (206)784-3703 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (206)784-8823

Contact/Location: WILLOW YANARELLA - VP794951