

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

ROBERT DIMURRO [MATTHEW DOW] Machine Id VOLVO PENTA 3940025910

Component

Starboard IPS

GEAR OIL SAE 75W90 (15 QTS)

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

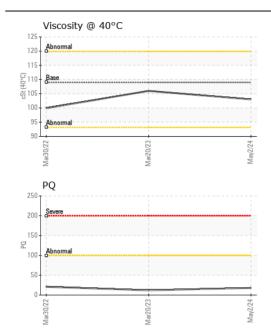
FLUID CONDITION

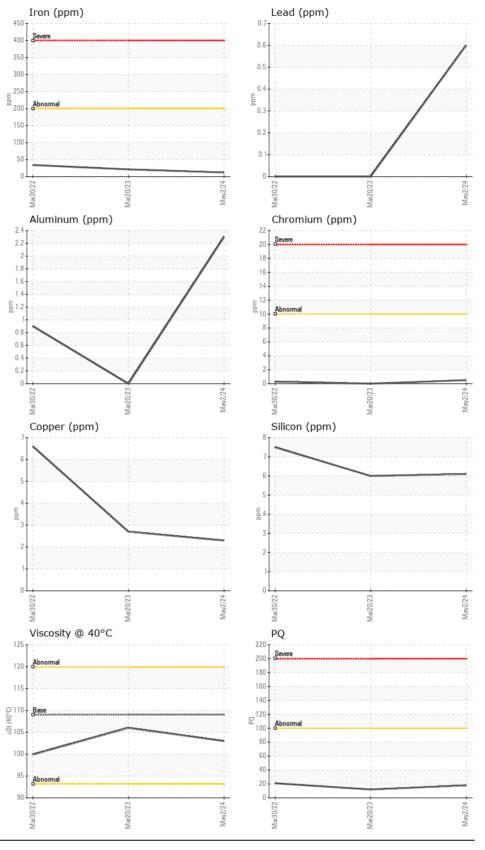
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA055264	VPA047914	VPA047340
Sample Date		Client Info		02 May 2024	20 Mar 2023	30 Mar 2022
Machine Age	hrs	Client Info		193	173	140
Oil Age	hrs	Client Info		20	33	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
PQ		ASTM D8184		18	12	21
Iron	ppm	ASTM D5185m	>200	12	21	34
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	<1
Aluminum	ppm	ASTM D5185m		2	0	<1
Lead	ppm	ASTM D5185m		<1	0	0
Copper	ppm	ASTM D5185m		2	3	7
Tin	ppm	ASTM D5185m		<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	nnm	ASTM D5185m		6	6	Q
Silicon	ppm	ASTM D5185m	>20	6	6	8
Potassium	ppm ppm	ASTM D5185m	>20	2	2	3
Potassium Water	ppm	ASTM D5185m WC Method	>0.2	2 NEG	2 NEG	3 NEG
Potassium Water Silt	ppm scalar	ASTM D5185m WC Method *Visual	>0.2 NONE	2 NEG NONE	2 NEG NONE	3 NEG NONE
Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185m WC Method *Visual *Visual	>0.2 NONE NONE	2 NEG NONE NONE	2 NEG NONE NONE	3 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt	ppm scalar	ASTM D5185m WC Method *Visual	>0.2 NONE	2 NEG NONE	2 NEG NONE	3 NEG NONE
Potassium Water Silt Debris	ppm scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual	>0.2 NONE NONE NONE	2 NEG NONE NONE NONE	2 NEG NONE NONE	3 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>0.2 NONE NONE NONE NORML	2 NEG NONE NONE NONE NORML	2 NEG NONE NONE NONE NORML	3 NEG NONE NONE NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>0.2 NONE NONE NORML NORML	2 NEG NONE NONE NORE NORML	2 NEG NONE NONE NONE NORML NORML	3 NEG NONE NONE NORML NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2	2 NEG NONE NONE NORML NORML NEG 0	2 NEG NONE NONE NORML NORML NEG 0	3 NEG NONE NONE NORML NORML NEG 2
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2	2 NEG NONE NONE NORML NORML NEG 0 394	2 NEG NONE NONE NORML NORML NEG 0 354	3 NEG NONE NONE NORML NORML NEG 2 471
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML >0.2 400 200 	2 NEG NONE NONE NORML NORML NEG 0 394 0	2 NEG NONE NONE NORML NORML NEG 0 354 0	3 NEG NONE NONE NORML NORML NEG 2 471 0
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2	2 NEG NONE NONE NORML NORML NEG 0 394 0 <1	2 NEG NONE NONE NORML NORML NEG 0 354 0 <1	3 NEG NONE NONE NORML NORML NEG 2 471 0 2
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 NONE NONE NORML NORML >0.2 400 200 12	2 NEG NONE NONE NORML NORML NEG 0 394 0 <1 <1	2 NEG NONE NONE NORML NORML NEG 0 354 0 <1 <1	3 NEG NONE NONE NORML NORML NEG 2 471 0 2 1
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NORML NORML >0.2 400 200 12 12 	2 NEG NONE NONE NORML NORML NEG 0 394 0 <1 <1 <1 10	2 NEG NONE NONE NORML NORML NEG 0 354 0 <1 <1 <1 37	3 NEG NONE NONE NORML NORML NEG 2 471 0 2 471 0 2 1 375
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML >0.2 400 200 12 12 150 	2 NEG NONE NONE NORML NORML NEG 0 394 0 <1 <1 <1 10 5	2 NEG NONE NONE NORML NORML NEG 0 354 0 354 0 <1 <1 <1 37 16	3 NEG NONE NONE NORML NORML NEG 2 471 0 2 471 0 2 1 375 61
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML >0.2 400 200 12 12 150 1650 	2 NEG NONE NONE NORML NORML NEG 0 394 0 <1 <1 <1 10 5 1358	2 NEG NONE NONE NORML NORML NEG 0 354 0 <1 <1 37 16 1260	3 NEG NONE NONE NORML NORML NEG 2 471 0 2 471 0 2 1 375 61 1472
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML NORML >0.2 400 200 12 150 1650 125 	2 NEG NONE NONE NORML NORML NEG 0 394 0 <1 <1 <1 10 5 1358 9	2 NEG NONE NONE NORML NORML NEG 0 354 0 354 0 <1 37 16 1260 12	3 NEG NONE NONE NORML NEG 2 471 0 2 471 0 2 1 375 61 1472 59
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.2 NONE NONE NORML >0.2 400 200 12 12 150 1650 	2 NEG NONE NONE NORML NORML NEG 0 394 0 <1 <1 <1 10 5 1358	2 NEG NONE NONE NORML NORML NEG 0 354 0 <1 <1 37 16 1260	3 NEG NONE NONE NORML NORML NEG 2 471 0 2 471 0 2 1 375 61 1472

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Contact/Location: Duane Kujat - VP443016





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 **Mobile Marine Services Inc** Sample No. Received 01032 Advance Rd South : VPA055264 : 23 May 2024 Lab Number : 06189548 Tested EAST JORDAN, MI : 24 May 2024 Unique Number : 11046300 : 28 May 2024 - Don Baldridge US 49727 Diagnosed Test Package : MOB 1 (Additional Tests: PQ) Contact: Duane Kujat Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. mobilemarine@twin-valley.net * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Phone Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

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Contact/Location: Duane Kujat - VP443016 Page 2 of 2