OIL REPORT

LAB NUMBER:
REPORT DATE: 4/10/2019
CODE: 20/75

UNIT ID: STARBOARD
CLIENT ID:
PAYMENT: CC: Visa (Bulk)

UNIT

MAKE/MODEL: Detroit Marine 8V92
FUEL TYPE: Diesel
ADDITIONAL INFO:

OIL TYPE & GRADE: 40W
OIL USE INTERVAL: Hours

CLIENT

COMMENTS

Iron tested high next to averages, which are based on other Detroit engines of this type after ~140 hours on the oil. We aren't sure how long this oil was in use, but iron shows excess wear at steel parts. Normal accumulation over a long service interval could be contributing to the iron level, or perhaps it shows rust if the vessel has been sitting for a while. If the port sample shows a similar iron level (it hasn't made it to us yet), there's a good chance iron is from operational or situational factors, and will improve on its own. All else looks fine. The viscosity is normal for 40W oil.

ELEMENTS IN PARTS PER MILLION

MI/HR on Oil		UNIT / LOCATION AVERAGES						UNIVERSAL AVERAGES
MI/HR on Unit								
Sample Date	1/12/2018							
Make Up Oil Added								
ALUMINUM	0	0						2
CHROMIUM	2	2						2
IRON	**164**	164						62
COPPER	8	8						6
LEAD	2	2						2
TIN	11	11						6
MOLYBDENUM	1	1						29
NICKEL	0	0						0
MANGANESE	1	1						1
SILVER	0	0						0
TITANIUM	0	0						0
POTASSIUM	0	0						1
BORON	1	1						30
SILICON	12	12						8
SODIUM	2	2						5
CALCIUM	40	40						2022
MAGNESIUM	1429	1429						379
PHOSPHORUS	1174	1174						867
ZINC	1280	1280						995
BARIUM	0	0						0

PROPERTIES

		Values Should Be*					
SUS Viscosity @ 210°	80.2	70-82					
cSt Viscosity @ 100°C	15.58	13.0-16.3					
Flashpoint in °F	450	>420					
Fuel %	<0.5	<3.0					
Antifreeze %	0.0	0.0					
Water %	0.0	0.0					
Insolubles %	0.3	<0.6					
TBN							
TAN							
ISO Code							

*** THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE**

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