



## LOCKYER ZF 20165038 - STERNDRIVE - STARBOARD GEARBOX

Sample No: VPA059689

**Oil Type:** MERC HIGH PERFORMANCE 90

Sample Number	SAMPLE INFORM	ATION			
Sample Date         22 Nov 2023		ATIUN			
Machine Hours         0			VPA059689	 	
Oil Changed         Not Changed	Sample Date		22 Nov 2023	 	
Not Changed   Sample Status   SEVERE	Machine Hours		0	 	
Sample Status	Oil Hours		0	 	
OIL CONDITION  Visc @ 40°C			Not Changd		
Visc @ 40°C	Sample Status		SEVERE	 	
CONTAMINATION  Water	OIL CONDITION				
Water       %       ▲ 0.161	Visc @ 40°C	cSt	<b>171</b>	 	
Silicon	CONTAMINATION	ı			
Sodium	Water	%	<b>△</b> 0.161	 	
Sodium		ppm	<b>10</b>	 	
Potassium         ppm         ■12	Sodium			 	
WEAR METALS         PQ       53	Potassium		<b>12</b>	 	
Tron			=52		
Copper         ppm         24 </td <td>~</td> <td>10.10.100</td> <td></td> <td></td> <td></td>	~	10.10.100			
Tin			•		
Tin ppm 1 Aluminum ppm 6			_		
Aluminum ppm 6			_		
Chromium         ppm         5   <			_		
Molybdenum         ppm         70              Nickel         ppm         2              Titanium         ppm         <1			_		
Nickel         ppm         2 <td></td> <td></td> <td>_</td> <td></td> <td></td>			_		
Titanium ppm <1 Silver ppm 0	-				
Silver         ppm         0              Manganese         ppm         9              Vanadium         ppm         <1              ADDITIVES           Calcium         ppm         70              Magnesium         ppm         2              Zinc         ppm         19              Phosphorus         ppm         547              Barium         ppm         2					
Manganese         ppm         9					
Vanadium         ppm         <1               ADDITIVES           Calcium         ppm         70               Magnesium         ppm         2               Zinc         ppm         19               Phosphorus         ppm         547               Barium         ppm         2					
ADDITIVES  Calcium ppm 70  Magnesium ppm 2  Zinc ppm 19  Phosphorus ppm 547  Barium ppm 2	<b>J</b>		-		
Calcium         ppm         70              Magnesium         ppm         2              Zinc         ppm         19              Phosphorus         ppm         547              Barium         ppm         2			•		
Magnesium         ppm         2              Zinc         ppm         19              Phosphorus         ppm         547              Barium         ppm         2	ADDITIAF?				
Zinc         ppm         19              Phosphorus         ppm         547               Barium         ppm         2	Calcium	ppm	70	 	
Phosphorus         ppm         547              Barium         ppm         2	Magnesium	ppm	2	 	
Barium ppm <b>2</b>	Zinc		19	 	
T. T	Phosphorus	ppm	547	 	
Boron ppm <b>14</b>	Barium	ppm	2	 	
	Boron	ppm	14	 	

## Walstrom Marine - 767948

501 Bay Street HARBOR SPRINGS, MI US 49740 Contact: RICK HEINY rheiny@walstrom.com

T: F:

## Diagnosis

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. There is a trace of moisture present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot:VP154879Unique No:10762953Signed:Jonathan HesterReport Date:30 Nov 2023





