



ZF 20021255 - STARBOARD TRANSMISSION

Sample No: VPA052120
Oil Type: SAE 30W

SAMPLE INFORMATION Sample Number 28 Dec 2023					
Sample Date 28 Dec 2023	SAMPLE INFORM <i>e</i>	ATION			
Sample Date 28 Dec 2023	Sample Number		VPA052120	 	
Machine Hours 0 <th< td=""><td></td><td></td><th></th><td> </td><td></td></th<>				 	
Oil Changed Sample Status Not Changd ATTENTION	•		0	 	
Sample Status	Oil Hours		0	 	
Oil CONDITION Visc @ 40°C	Oil Changed		Not Changd	 	
Visc @ 40°C cSt 105	Sample Status		ATTENTION	 	
Vater	OIL CONDITION				
Nater	Visc @ 40°C	cSt	105	 	
Silicon ppm 4 <td< td=""><td>CONTAMINATION</td><td></td><th></th><td></td><td></td></td<>	CONTAMINATION				
Silicon ppm 4 <td< td=""><td>Water</td><td>%</td><th>NEG</th><td> </td><td></td></td<>	Water	%	NEG	 	
Sodium ppm ■ 4 WEAR METALS WEAR METALS PQ ■ 102 Iron ppm ■ 81 Copper ppm ■ 136 Lead ppm ■ 115 Aluminum ppm ■ 5 Aluminum ppm ■ 2 Aluminum ppm ■ 95 Aluminum ppm ■ 95 Molybdenum ppm ■ 95 Nickel ppm ■ 0 Manganese ppm ■ 1	Silicon	ppm	4	 	
Potassium ppm 1 WEAR METALS PQ 102 Iron ppm 81 Copper ppm 136 Lead ppm 115 Aluminum ppm 5 Aluminum ppm 2 Aluminum ppm 95 Molybdenum ppm 95 Nickel ppm 0 Silver ppm 1 Manganese ppm 0 ADDITIVES <t< td=""><td>Sodium</td><td></td><th>■4</th><td> </td><td></td></t<>	Sodium		■4	 	
PQ	Potassium	ppm	1	 	
Iron	WEAR METALS				
Copper ppm ■ 136 Lead ppm ■ 115 Tin ppm ■ 5 Aluminum ppm ■ 2 Chromium ppm ■ 21 Molybdenum ppm ■ 95 Nickel ppm < 1	PQ		102	 	
Lead ppm ▲ 115 Tin ppm ■ 5 Aluminum ppm ■ 2 Chromium ppm ■ 1 Molybdenum ppm ■ 95 Nickel ppm ■ 1 Silver ppm ■ 0 Manganese ppm ■ 1 Vanadium ppm ■ 2165 ADDITIVES Calcium ppm ■ 2165 Magnesium ppm ■ 223 Zinc ppm ■ 1019 Phosphorus ppm ■ 953 Barium ppm ■ 0	Iron	ppm	■ 81	 	
Tin ppm 55 Aluminum ppm 22	Copper	ppm	136	 	
Aluminum ppm 2	Lead	ppm	▲ 115	 	
Chromium ppm		ppm	_	 	
Molybdenum ppm 95 Nickel ppm <1		ppm	_	 	
Nickel ppm <1			_		
Titanium ppm 0 Silver ppm <1	-	ppm	_	 	
Silver ppm <1					
Manganese ppm 1 Vanadium ppm 0 ADDITIVES Calcium ppm 2165 Magnesium ppm 223 Zinc ppm 1019 Phosphorus ppm 953 Barium ppm 0					
Vanadium ppm 0 ADDITIVES Calcium ppm 2165 Magnesium ppm 223 Zinc ppm 1019 Phosphorus ppm 953 Barium ppm 0					
ADDITIVES Calcium ppm 2165 Magnesium ppm 223 Zinc ppm 1019 Phosphorus ppm 953 Barium ppm 0	3		_		
Calcium ppm 2165 Magnesium ppm 223 Zinc ppm 1019 Phosphorus ppm 953 Barium ppm 0	Vanadium	ppm	0	 	
Magnesium ppm 223 Zinc ppm 1019 Phosphorus ppm 953 Barium ppm 0	ADDITIVES				
Zinc ppm 1019 Phosphorus ppm 953 Barium ppm 0	Calcium	ppm	2165	 	
Phosphorus ppm 953 Barium ppm 0	Magnesium	ppm	223	 	
Barium ppm 0	Zinc	ppm	1019	 	
- The state of the	Phosphorus	ppm	■ 953	 	
Boron ppm 12	Barium	ppm	■ 0	 	
	Boron	ppm	12	 	

ALL SYSTEMS MARINE

700 MYRICK ST PENSACOLA, FL US 32505 Contact: TRISTAN JOHNSON allsystemsmarine@yahoo.com T: (228)218-7963 F:

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The lead level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

Depot:VP99220003Unique No:10809066Signed:Don BaldridgeReport Date:03 Jan 2024





