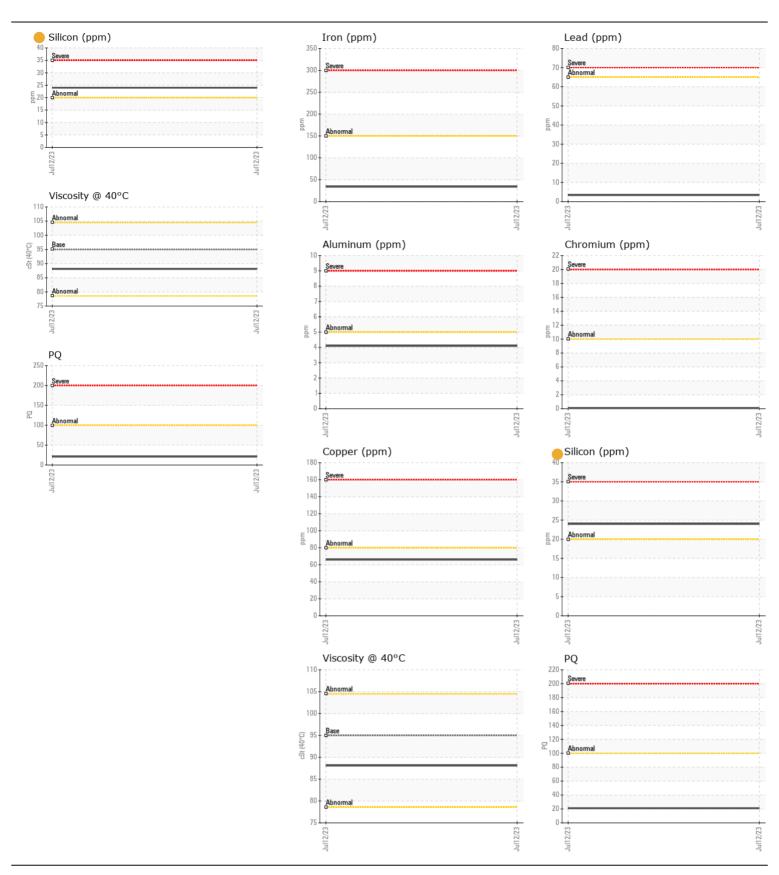
WEAR CONTAMINATION FLUID CONDITION

NORMAL ATTENTION NORMAL

ANDREW PRUSSACK [F] **ZF 20237934 - INBOARD**

Port Gearbox

SAE 30W (8 QTS)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number		Client Info		VPA033636		
	Sample Date		Client Info		12 Jul 2023		
	Machine Age	hrs	Client Info		491		
	Oil Age	hrs	Client Info		41		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		Not Changd		
	Sample Status				ATTENTION		
WEAR	PQ		ASTM D8184		21		
All component wear rates are normal.	Iron	ppm	ASTM D5185m	>150	34		
	Chromium	ppm	ASTM D5185m	>10	<1		
	Nickel	ppm	ASTM D5185m	>10	0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m	>5	4		
	Lead	ppm	ASTM D5185m	>65	3		
	Copper	ppm	ASTM D5185m	>80	66		
	Tin	ppm	ASTM D5185m	>8	<1		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION Elemental level of silicon (Si) above normal.	Silicon	ppm	ASTM D5185m	>20	2 4		
	Potassium	ppm	ASTM D5185m	>20	2		
	Water		WC Method	>0.2	NEG		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		0		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m		9		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		75		
	Manganese	ppm	ASTM D5185m		1		
	Magnesium	ppm	ASTM D5185m		27		
	Calcium	ppm	ASTM D5185m		2867		
	Phosphorus	ppm	ASTM D5185m		971		
	Zinc	ppm	ASTM D5185m		1050		
	Sulfur	ppm	ASTM D5185m	05.5	6421		
Panast Id: \/P1120602 [\M/ ISC AD] 05007717 //Congreted: 07/12/0024 00:20:20\ Day: 1	Visc @ 40°C	cSt	ASTM D445		88.1	 AUEDTV	 VD1120602







Certificate L2367

Laboratory Sample No. Unique Number : 10553527

Lab Number : 05897717

: VPA033636

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

Diagnosed Test Package: MOB 1 (Additional Tests: PQ)

: 13 Jul 2023 : 14 Jul 2023

: 17 Jul 2023 - Don Baldridge

TOTAL MARINE OF MARYLAND INC 106 WELLS COVE ROAD SUITE 2 GRASONVILLE, MD

US 21638 Contact: JAMIE FLAHERTY

jflaherty@totalmarine.com T: (410)604-6000

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)