

OIL ANALYSIS REPORT

**VOLVO
PENTA**

ZF 20038113 - INBOARD - STARBOARD GEARBOX

Sample No: VPA044372

Oil Type: SHELL ROTELLA T 30

SAMPLE INFORMATION

Sample Number	VPA044372	---	---	---
Sample Date	21 Aug 2023	---	---	---
Machine Hours	810	---	---	---
Oil Hours	70	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	SEVERE	---	---	---

OIL CONDITION

Visc @ 40°C	cSt	■ 96.8	---	---	---
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CONTAMINATION

Silicon	ppm	■ 3	---	---	---
Sodium	ppm	■ 18	---	---	---
Potassium	ppm	■ 1	---	---	---

WEAR METALS

PQ		■ 16	---	---	---
Iron	ppm	■ 13	---	---	---
Copper	ppm	● 194	---	---	---
Lead	ppm	● 243	---	---	---
Tin	ppm	■ 2	---	---	---
Aluminum	ppm	■ 4	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 24	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	■ 1	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	■ 2956	---	---	---
Magnesium	ppm	■ 114	---	---	---
Zinc	ppm	■ 960	---	---	---
Phosphorus	ppm	■ 833	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 6	---	---	---

SMART DIESEL SERVICE

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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. Clutch wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: VPSMAPLA

Unique No: 10617600

Signed: Jonathan Hester

Report Date: 25 Aug 2023

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GRAPHS

