



KEITH WILLIAMS GB6018 PANDA 2000751 - CENTER GENSET

Sample No: VPA258818
Oil Type: SHELL 15W40

| SAMPLE INFORMAT | TION | | | |
|------------------------------|-------------|---------------|-------------|------|
| Sample Number | | VPA258818 | VPA049514 | |
| • | | 03 May 2024 | 14 Dec 2023 | |
| Sample Date Machine Hours | | 609 | | |
| | | 100 | 493 | |
| Oil Hours | | | 100 | |
| Oil Changed | | Changed | Changed | |
| Sample Status | | NORMAL | NORMAL | |
| OIL CONDITION | | | | |
| Visc @ 100°C | cSt | 13.2 | ■13.5 | |
| Base Number (BN) | mg KOH/g | 9.0 | 7.5 | |
| Oxidation (PA) | % | 66 | 69 | |
| CONTAMINATION | | | | |
| Water | % | NEG | NEG | |
| Soot % | % | ■0.1 | 0.2 | |
| Nitration (PA) | % | 57 | 58 | |
| Sulfation (PA) | % | 55 | 56 | |
| Glycol | % | NEG | NEG | |
| Fuel | % | <1.0 | <1.0 | |
| Silicon | | ■6 | 7 | |
| Sodium | ppm | 0 | □ / □ <1 | |
| Potassium | ppm | 4 | 6 | |
| | ppm | 4 | | |
| WEAR METALS | | | | |
| Iron | ppm | 5 | 6 | |
| Copper | ppm | 6 | 0 | |
| Lead | ppm | ■<1 | 0 | |
| Tin | ppm | ■<1 | - <1 | |
| Aluminum | ppm | 2 | 2 | |
| Chromium | ppm | <1 | 0 | |
| Molybdenum | ppm | 43 | □0 | |
| Nickel | ppm | ■ 0 | П0 | |
| Titanium | ppm | <1 | 0 | |
| Silver | ppm | ■0 | 0 | |
| Manganese | ppm | ■<1 | ■0 | |
| Vanadium | ppm | <1 | 0 | |
| | ррпп | - 1 | Ü | |
| ADDITIVES | | | | |
| Calcium | ppm | 1692 | 2247 | |
| Magnesium | ppm | 431 | 1 6 | |
| Zinc | ppm | 1204 | 1231 | |
| Phosphorus | ppm | 1103 | ■1014 | |
| Barium | ppm | 2 | 0 | |
| Boron | ppm | 75 | 1 69 | |
| | | | | |

GRAND BANKS

450 SW SALEM RD STUART, FL US 34994 Contact: ROBERT ANTONA roberta@gbmarinegroup.com T: (609)384-5290 F:

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Depot:VP531377Unique No:11022899Signed:Sean FeltonReport Date:14 May 2024





