

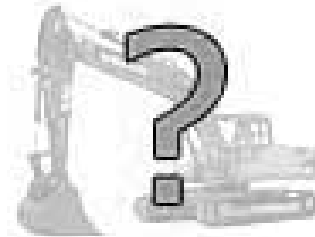


CONSTRUCTION EQUIPMENT

SPM567475 SENNEBOGEN 835ME 835.0.2902 - DIESEL ENGINE



Sample No: VCP423172
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SPM567475



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP423172 | VCP383260 | VCP358667 | VCP333248 |
| Sample Date | 26 Jun 2023 | 19 Apr 2023 | 05 May 2022 | 11 Feb 2022 |
| Machine Hours | 3988 | 3469 | 1073 | 540 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | Changed | Changed | Changed |
| Sample Status | NORMAL | ABNORMAL | ABNORMAL | SEVERE |

SIMS METAL MANAGEMENT

2500 S. PAULINA
 CHICAGO, IL
 US 60608
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 T:
 F:

OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|-----|
| Visc @ 100°C | cSt | 13.7 | 12.0 | 12.3 | 9 |
| Base Number (BN) | mg KOH/g | 9.0 | 6.8 | 8.5 | 6.8 |
| Oxidation (PA) | % | 79 | 86 | 93 | 100 |

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

CONTAMINATION

| | | | | | |
|----------------|-----|--------------|-----|-----|------|
| Soot % | % | 0.2 | 0.3 | 0.2 | 0.3 |
| Nitration (PA) | % | 83 | 84 | 104 | 107 |
| Sulfation (PA) | % | 59 | 57 | 66 | 66 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | 1.2 | 7.5 | 7.3 | 20.7 |
| Silicon | ppm | 4 | 4 | 5 | 17 |
| Sodium | ppm | <1 | <1 | 1 | 7 |
| Potassium | ppm | 3 | 2 | 11 | 9 |

WEAR METALS

| | | | | | |
|------------|-----|--------------|----|----|----|
| Iron | ppm | 12 | 27 | 24 | 39 |
| Copper | ppm | 1 | 0 | 2 | 13 |
| Lead | ppm | 0 | 0 | <1 | <1 |
| Tin | ppm | <1 | 0 | <1 | <1 |
| Aluminum | ppm | 2 | 1 | 4 | 4 |
| Chromium | ppm | <1 | <1 | <1 | 1 |
| Molybdenum | ppm | 62 | 60 | 58 | 73 |
| Nickel | ppm | 0 | 0 | 0 | <1 |
| Titanium | ppm | 0 | 0 | 2 | 2 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | <1 | <1 | <1 | 4 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |

ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 1097 | 1106 | 1180 | 1965 |
| Magnesium | ppm | 1034 | 1032 | 906 | 158 |
| Zinc | ppm | 1365 | 1372 | 1271 | 1105 |
| Phosphorus | ppm | 1061 | 1039 | 1002 | 923 |
| Barium | ppm | 0 | 0 | 0 | 7 |
| Boron | ppm | 0 | 0 | 16 | 56 |

Depot: SIMCHIL
Unique No: 10548414
Signed: Wes Davis
Report Date: 11 Jul 2023



CONSTRUCTION EQUIPMENT



GRAPHS

