



CONSTRUCTION EQUIPMENT

RSO033017 HELIX HITACHI ZX85 023795 - DIESEL ENGINE



Sample No: VCP347933
Oil Type: DIESEL ENGINE OIL SAE 40
Job No: RSO033017 HELIX



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | VCP347933 | --- | --- | --- |
| Sample Date | 10 Feb 2023 | --- | --- | --- |
| Machine Hours | 321 | --- | --- | --- |
| Oil Hours | 0 | --- | --- | --- |
| Oil Changed | N/A | --- | --- | --- |
| Sample Status | NORMAL | --- | --- | --- |

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OIL CONDITION

| | | | | | |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C | cSt | █ 13.5 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 7.9 | --- | --- | --- |
| Oxidation (PA) | % | 54 | --- | --- | --- |

Diagnosis

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 suitable for further service.



CONTAMINATION

| | | | | | |
|----------------|-----|-------|-----|-----|-----|
| Soot % | % | █ 0.1 | --- | --- | --- |
| Nitration (PA) | % | 40 | --- | --- | --- |
| Sulfation (PA) | % | 52 | --- | --- | --- |
| Glycol | % | NEG | --- | --- | --- |
| Fuel | % | <1.0 | --- | --- | --- |
| Silicon | ppm | █ 11 | --- | --- | --- |
| Sodium | ppm | █ 2 | --- | --- | --- |
| Potassium | ppm | █ 18 | --- | --- | --- |



WEAR METALS

| | | | | | |
|------------|-----|------|-----|-----|-----|
| Iron | ppm | █ 3 | --- | --- | --- |
| Copper | ppm | █ <1 | --- | --- | --- |
| Lead | ppm | █ <1 | --- | --- | --- |
| Tin | ppm | █ <1 | --- | --- | --- |
| Aluminum | ppm | █ 1 | --- | --- | --- |
| Chromium | ppm | █ <1 | --- | --- | --- |
| Molybdenum | ppm | █ 83 | --- | --- | --- |
| Nickel | ppm | █ <1 | --- | --- | --- |
| Titanium | ppm | █ 0 | --- | --- | --- |
| Silver | ppm | █ 0 | --- | --- | --- |
| Manganese | ppm | █ <1 | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |



ADDITIVES

| | | | | | |
|------------|-----|--------|-----|-----|-----|
| Calcium | ppm | █ 1294 | --- | --- | --- |
| Magnesium | ppm | █ 342 | --- | --- | --- |
| Zinc | ppm | █ 1093 | --- | --- | --- |
| Phosphorus | ppm | █ 874 | --- | --- | --- |
| Barium | ppm | █ 0 | --- | --- | --- |
| Boron | ppm | █ 437 | --- | --- | --- |

Depot: COWMAB
Unique No: 10337483
Signed: Don Baldrige
Report Date: 16 Feb 2023



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GRAPHS

