

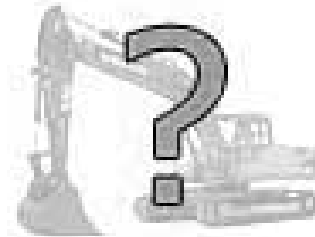


# CONSTRUCTION EQUIPMENT

## YALE FORKLIFT 3 - DIESEL ENGINE



**Sample No:** VCP404433  
**Oil Type:** MOBIL DELVAC 1300 SUPER15W40  
**Job No:**



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP404433</b>   | VCP366667   | VCP328634   | VCP274562   |
| Sample Date   | <b>16 Nov 2023</b> | 01 Nov 2022 | 18 Oct 2021 | 29 Jan 2021 |
| Machine Hours | <b>6723</b>        | 6467        | 6261        | 6001        |
| Oil Hours     | <b>256</b>         | 206         | 260         | 249         |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | Changed     |
| Sample Status | <b>NORMAL</b>      | ATTENTION   | NORMAL      | NORMAL      |

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### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>14.3</b> | 11.4 | 12.4 | 14.6 |
| Base Number (BN) | mg KOH/g | <b>9.0</b>  | 9.3  | ---  | ---  |
| Oxidation (PA)   | %        | <b>55</b>   | 64   | 62   | 37   |

### 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

|                |     |                |     |      |      |
|----------------|-----|----------------|-----|------|------|
| Water          | %   | <b>NEG</b>     | NEG | NEG  | NEG  |
| Soot %         | %   | <b>0.1</b>     | 0.2 | 0.2  | 0.2  |
| Nitration (PA) | %   | <b>48</b>      | 59  | 56   | 52   |
| Sulfation (PA) | %   | <b>49</b>      | 57  | 55   | 45   |
| Glycol         | %   | <b>NEG</b>     | NEG | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | 0.0 | <1.0 | <1.0 |
| Silicon        | ppm | <b>4</b>       | 4   | 4    | 4    |
| Sodium         | ppm | <b>2</b>       | 2   | 2    | 3    |
| Potassium      | ppm | <b>2</b>       | 3   | 6    | 8    |



### WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>3</b>     | 4  | 5  | 6  |
| Copper     | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Lead       | ppm | <b>0</b>     | <1 | 0  | 1  |
| Tin        | ppm | <b>3</b>     | 0  | 0  | 0  |
| Aluminum   | ppm | <b>&lt;1</b> | 1  | 1  | 1  |
| Chromium   | ppm | <b>0</b>     | <1 | <1 | <1 |
| Molybdenum | ppm | <b>49</b>    | 10 | 4  | 10 |
| Nickel     | ppm | <b>0</b>     | 0  | 0  | <1 |
| Titanium   | ppm | <b>0</b>     | 0  | <1 | <1 |
| Silver     | ppm | <b>0</b>     | 0  | 0  | 0  |
| Manganese  | ppm | <b>0</b>     | <1 | <1 | 0  |
| Vanadium   | ppm | <b>0</b>     | 0  | 0  | 0  |



### ADDITIVES

|            |     |             |      |      |      |
|------------|-----|-------------|------|------|------|
| Calcium    | ppm | <b>1191</b> | 2099 | 2342 | 2612 |
| Magnesium  | ppm | <b>791</b>  | 87   | 22   | 69   |
| Zinc       | ppm | <b>1211</b> | 1101 | 1110 | 1111 |
| Phosphorus | ppm | <b>908</b>  | 944  | 880  | 1026 |
| Barium     | ppm | <b>0</b>    | 0    | 0    | 0    |
| Boron      | ppm | <b>29</b>   | 193  | 151  | 12   |

**Depot:** MARDIC  
**Unique No:** 10762490  
**Signed:** Wes Davis  
**Report Date:** 28 Nov 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

