



# CONSTRUCTION EQUIPMENT

## LKQ VOLVO L60H 623000 - DIESEL ENGINE



**Sample No:** VCP414638  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** LKQ



### SAMPLE INFORMATION

|               |                    |             |             |     |
|---------------|--------------------|-------------|-------------|-----|
| Sample Number | <b>VCP414638</b>   | VCP424139   | VCP410344   | --- |
| Sample Date   | <b>07 Sep 2023</b> | 06 Jun 2023 | 24 Mar 2023 | --- |
| Machine Hours | <b>1983</b>        | 1042        | 617         | --- |
| Oil Hours     | <b>0</b>           | 500         | 617         | --- |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | --- |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | --- |



ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC  
 8418 PALM RIVER ROAD  
 TAMPA, FL  
 US 33619  
 Contact: KENNY HANEY  
 khaney@flaglerce.com  
 T: (813)630-0077  
 F: (813)630-2233



### OIL CONDITION

|                  |          |             |      |      |     |
|------------------|----------|-------------|------|------|-----|
| Visc @ 100°C     | cSt      | <b>12.6</b> | 12.6 | 13.1 | --- |
| Base Number (BN) | mg KOH/g | <b>10.4</b> | 9.9  | 10.0 | --- |
| Oxidation (PA)   | %        | <b>78</b>   | 82   | 68   | --- |



### CONTAMINATION

|                |     |                |      |      |     |
|----------------|-----|----------------|------|------|-----|
| Soot %         | %   | <b>0.3</b>     | 0.3  | 0.2  | --- |
| Nitration (PA) | %   | <b>57</b>      | 55   | 55   | --- |
| Sulfation (PA) | %   | <b>59</b>      | 61   | 57   | --- |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | --- |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | --- |
| Silicon        | ppm | <b>7</b>       | 6    | 12   | --- |
| Sodium         | ppm | <b>4</b>       | 3    | 2    | --- |
| Potassium      | ppm | <b>2</b>       | 0    | 1    | --- |



### WEAR METALS

|            |     |              |    |    |     |
|------------|-----|--------------|----|----|-----|
| Iron       | ppm | <b>11</b>    | 12 | 17 | --- |
| Copper     | ppm | <b>1</b>     | 1  | 6  | --- |
| Lead       | ppm | <b>&lt;1</b> | 0  | 0  | --- |
| Tin        | ppm | <b>&lt;1</b> | <1 | 2  | --- |
| Aluminum   | ppm | <b>3</b>     | 2  | 8  | --- |
| Chromium   | ppm | <b>1</b>     | 1  | 2  | --- |
| Molybdenum | ppm | <b>47</b>    | 44 | 43 | --- |
| Nickel     | ppm | <b>0</b>     | 0  | <1 | --- |
| Titanium   | ppm | <b>0</b>     | 0  | 0  | --- |
| Silver     | ppm | <b>0</b>     | 0  | 0  | --- |
| Manganese  | ppm | <b>&lt;1</b> | <1 | 3  | --- |
| Vanadium   | ppm | <b>&lt;1</b> | 0  | 0  | --- |



### ADDITIVES

|            |     |             |      |      |     |
|------------|-----|-------------|------|------|-----|
| Calcium    | ppm | <b>1854</b> | 1615 | 1520 | --- |
| Magnesium  | ppm | <b>568</b>  | 538  | 738  | --- |
| Zinc       | ppm | <b>1241</b> | 1095 | 1252 | --- |
| Phosphorus | ppm | <b>1012</b> | 916  | 1026 | --- |
| Barium     | ppm | <b>0</b>    | 0    | 0    | --- |
| Boron      | ppm | <b>40</b>   | 37   | 33   | --- |

### 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.

**Depot:** VOLVO0093  
**Unique No:** 10675075  
**Signed:** Wes Davis  
**Report Date:** 04 Oct 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

