## **PROBLEM SUMMARY**

Machine Id SZLG730225

Component Diesel Engine Fluid NOT GIVEN (--- GAL)

### COMPONENT CONDITION SUMMARY







### RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

| PROBLEMATIC TEST RESULTS |     |            |    |             |             |        |  |  |  |
|--------------------------|-----|------------|----|-------------|-------------|--------|--|--|--|
| Sample Status            |     |            |    | ABNORMAL    | MARGINAL    | NORMAL |  |  |  |
| Fuel                     | %   | ASTM D3524 | >5 | <u> </u>    | <b>2</b> .8 | <1.0   |  |  |  |
| Visc @ 100°C             | cSt | ASTM D445  |    | <b>11.0</b> | 12.3        | 12.5   |  |  |  |

Customer Id: DOLWIL Sample No.: WC0779379 Lab Number: 05813131 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>

| RECOMMENDED ACTIONS           |        |      |         |   |  |  |  |
|-------------------------------|--------|------|---------|---|--|--|--|
| Action                        | Status | Date | Done By | Description   |  |  |  |
| Information Required          |        |      | ?       | Please specify the brand, type, and viscosity of the oil on your next sample. |  |  |  |
| Check Fuel/injector<br>System |        |      | ?       | We advise that you check the fuel injection system.                           |  |  |  |

### HISTORICAL DIAGNOSIS



### 07 Nov 2021 Diag: Don Baldridge

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



### 10 Sep 2020 Diag: Don Baldridge

#### NORMAL



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.





### **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id SZLG730225 Component Diesel Engine Fluid NOT GIVEN (--- GAL)

### DIAGNOSIS

#### Recommendation

We advise that you check the fuel injection system. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of fuel present in the oil.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

| SAMPLE INFORM    | IATION   | method      | limit/base | current            | history1    | history2    |
|------------------|----------|-------------|------------|--------------------|-------------|-------------|
| Sample Number    |          | Client Info |            | WC0779379          | WC0614668   | WC0495932   |
| Sample Date      |          | Client Info |            | 01 Mar 2023        | 07 Nov 2021 | 10 Sep 2020 |
| Machine Age      | hrs      | Client Info |            | 4729               | 0           | 15554       |
| Oil Age          | hrs      | Client Info |            | 0                  | 0           | 0           |
| Oil Changed      |          | Client Info |            | N/A                | Changed     | Changed     |
| Sample Status    |          |             |            | ABNORMAL           | MARGINAL    | NORMAL      |
| CONTAMINATION    | ١        | method      | limit/base | current            | history1    | history2    |
| Glycol           |          | WC Method   |            | NEG                | NEG         | NEG         |
| WEAR METALS      |          | method      | limit/base | current            | history1    | history2    |
| Iron             | ppm      | ASTM D5185m | >100       | 11                 | 9           | 19          |
| Chromium         | ppm      | ASTM D5185m | >20        | <1                 | <1          | <1          |
| Nickel           | ppm      | ASTM D5185m | >4         | <1                 | <1          | <1          |
| Titanium         | ppm      | ASTM D5185m |            | <1                 | <1          | 9           |
| Silver           | ppm      | ASTM D5185m | >3         | 0                  | <1          | 0           |
| Aluminum         | ppm      | ASTM D5185m | >20        | 3                  | 2           | 4           |
| Lead             | ppm      | ASTM D5185m | >40        | 0                  | <1          | <1          |
| Copper           | ppm      | ASTM D5185m | >330       | 3                  | 4           | 8           |
| Tin              | ppm      | ASTM D5185m | >15        | 0                  | <1          | 0           |
| Antimony         | ppm      | ASTM D5185m |            |                    | 0           | 5           |
| Vanadium         | ppm      | ASTM D5185m |            | <1                 | <1          | 0           |
| Cadmium          | ppm      | ASTM D5185m |            | 0                  | 0           | 0           |
| ADDITIVES        |          | method      | limit/base | current            | history1    | history2    |
| Boron            | ppm      | ASTM D5185m |            | 275                | 345         | 100         |
| Barium           | ppm      | ASTM D5185m |            | 0                  | 0           | 0           |
| Molybdenum       | ppm      | ASTM D5185m |            | 82                 | 88          | 34          |
| Manganese        | ppm      | ASTM D5185m |            | <1                 | <1          | <1          |
| Magnesium        | ppm      | ASTM D5185m |            | 381                | 472         | 638         |
| Calcium          | ppm      | ASTM D5185m |            | 1517               | 1606        | 1500        |
| Phosphorus       | ppm      | ASTM D5185m |            | 913                | 904         | 605         |
| Zinc             | ppm      | ASTM D5185m |            | 1176               | 1048        | 741         |
| Sulfur           | ppm      | ASTM D5185m |            | 3722               | 2801        | 2314        |
| CONTAMINANTS     |          | method      | limit/base | current            | history1    | history2    |
| Silicon          | ppm      | ASTM D5185m | >25        | 4                  | 3           | 6           |
| Sodium           | ppm      | ASTM D5185m |            | 8                  | 13          | 3           |
| Potassium        | ppm      | ASTM D5185m | >20        | 2                  | <1          | 2           |
| Fuel             | %        | ASTM D3524  | >5         | <mark>▲</mark> 7.0 | <u> </u>    | <1.0        |
| INFRA-RED        |          | method      | limit/base | current            | history1    | history2    |
| Soot %           | %        | *ASTM D7844 | >3         | 0.2                | 0.1         | 0.1         |
| Nitration        | Abs/cm   | *ASTM D7624 | >20        | 8.1                | 7.2         | 8.8         |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30        | 20.5               | 20.9        | 19          |
| FLUID DEGRADA    | TION     | method      | limit/base | current            | history1    | history2    |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25        | 16.2               | 15.5        | 14.2        |
| Base Number (BN) | mg KOH/g | ASTM D2896  |            | 6.9                | 7.9         | 7.4         |
|                  |          |             |            |                    |             |             |



# **OIL ANALYSIS REPORT**









Certificate L2367

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