

Machine Id VOLVO L70H 624732 Component Diesel Engine

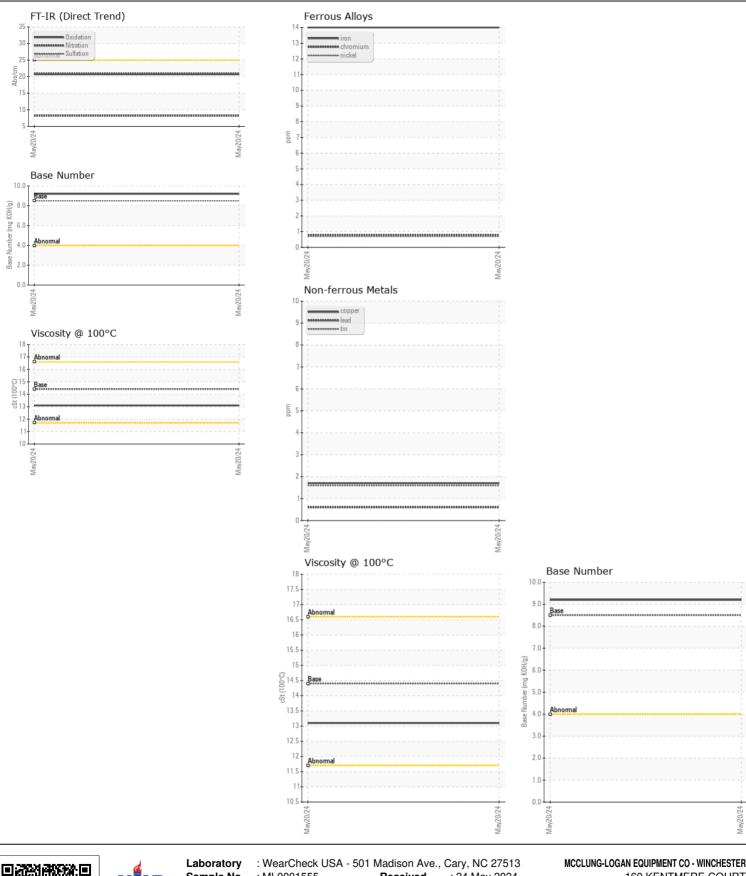
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|----------|-------------|-----------|-------------|----------|----------|
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | ML0001555 | | |
| Resample at the next service interval to monitor. | Sample Date | | Client Info | | 20 May 2024 | | |
| | Machine Age | hrs | Client Info | | 2597 | | |
| | Oil Age | hrs | Client Info | | 0 | | |
| | Filter Age | hrs | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | Changed | | |
| | Filter Changed | | Client Info | | Changed | | |
| | Sample Status | | | | NORMAL | | |
| | | | | 100 | | | |
| WEAR All component wear rates are normal. | Iron | ppm | ASTM D5185m | | 14 | | |
| | Chromium | ppm | ASTM D5185m | | <1 | | |
| | Nickel | ppm | ASTM D5185m | >10 | <1 | | |
| | Titanium | ppm | ASTM D5185m | 0 | 0 | | |
| | Silver | ppm | ASTM D5185m | | <1 | | |
| | Aluminum | ppm | ASTM D5185m | | 6 | | |
| | Lead | ppm | ASTM D5185m | | <1 | | |
| | Copper | ppm | ASTM D5185m | | 2 | | |
| | Tin | ppm | ASTM D5185m | >10 | 2 | | |
| | Vanadium | ppm | ASTM D5185m | NONE | <1 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >20 | 8 | | |
| CONTRIMINATION | Potassium | ppm | ASTM D5185m | | 1 | | |
| There is no indication of any contamination in the oil. | Fuel | ppiii | WC Method | | <1.0 | | |
| | Water | | WC Method | | NEG | | |
| | Glycol | | WC Method | 20.1 | NEG | | |
| | Soot % | % | *ASTM D7844 | >3 | 0.2 | | |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 8.2 | | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 21.1 | | |
| | Silt | scalar | *Visual | NONE | NONE | | |
| | Debris | scalar | *Visual | NONE | NONE | | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| | Appearance | scalar | *Visual | NORML | NORML | | |
| | Odor | scalar | *Visual | NORML | NORML | | |
| | Emulsified Water | | *Visual | >0.1 | NEG | | |
| | | | | | | | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Sodium | ppm | ASTM D5185m | >158 | 3 | | |
| | Boron | ppm | ASTM D5185m | 250 | 44 | | |
| | Barium | ppm | ASTM D5185m | 10 | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | 100 | 47 | | |
| | Manganese | ppm | ASTM D5185m | | <1 | | |
| | Magnesium | ppm | ASTM D5185m | 450 | 585 | | |
| | Calcium | ppm | ASTM D5185m | 3000 | 1842 | | |
| | Phosphorus | ppm | ASTM D5185m | 1150 | 815 | | |
| | Zinc | ppm | ASTM D5185m | 1350 | 1026 | | |
| | Sulfur | ppm | ASTM D5185m | 4250 | 3096 | | |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 20.7 | | |
| | Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 9.2 | | |
| | \// | - 01 | AOTA DAAS | 444 | 40.4 | | |

Visc @ 100°C cSt

ASTM D445 14.4

13.1



MCCLUNG-LOGAN EQUIPMENT CO - WINCHESTER Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : ML0001555 Received **160 KENTMERE COURT** : 24 May 2024 Lab Number : 06190178 Tested WINCHESTER, VA : 29 May 2024 Unique Number : 11046930 Diagnosed : 29 May 2024 - Sean Felton US 22603 Test Package : CONST (Additional Tests: TBN) Contact: JENNIFER MATIAS Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. jmatias@mcclung-logan.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (540)722-3700 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (540)722-4441