

**WEAR CONTAMINATION FLUID CONDITION** 

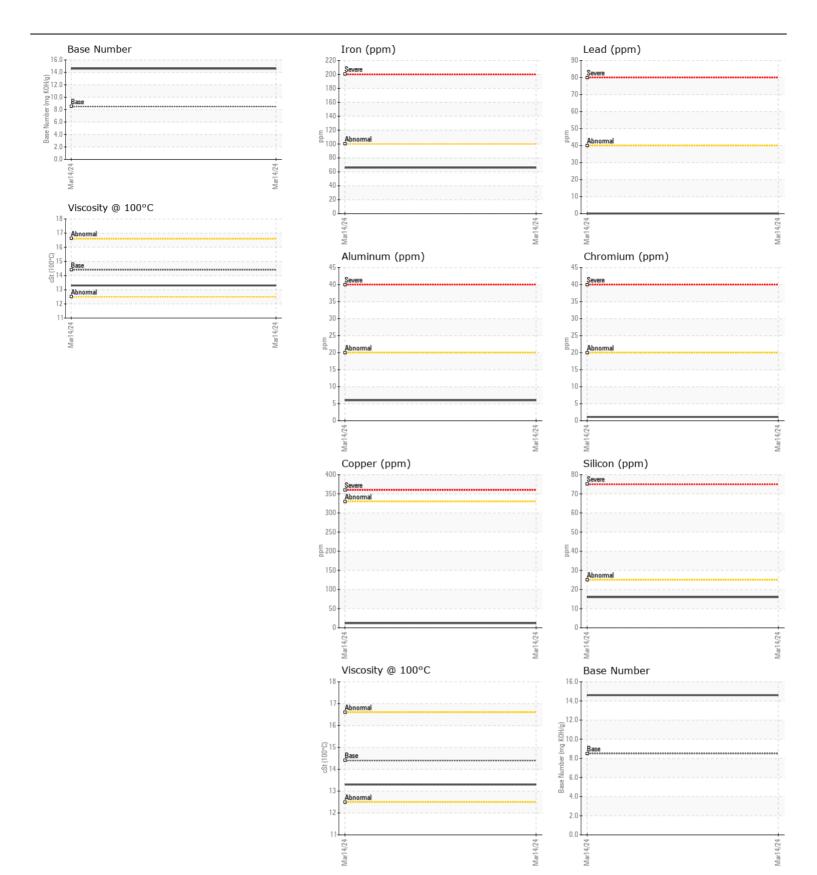
**NORMAL NORMAL NORMAL** 

## SOUTH HOLLAND TEREX RT230 RT1717 (S/N 161717)

Diesel Engine

DIESEI FNGINE OII 10W40 (---

| Test   | DIESEL ENGINE OIL 10W40 ( GAL)                          |              |          |             |            |         |          |          |  |
|--|---|--------------|----------|-------------|------------|---------|----------|----------|--|
| Resample at the next service interval to monitor.   Sample Date   Client Info   Machine Age   Name   Client Info   Name   Name   Name   Client Info   Name   Name   Client Info   Name   Name   Name   Name   Client Info   Name   Name   Name   Client Info   Name   Name | RECOMMENDATION  | Test         | HOM      | Method      | I imit/Ahn | Current | History1 | History2 |  |
| Meschine deg   | HEOOMMENDATION  |              | COM      |             | Littleyton |         | ,        | -        |  |
| Machine Age   hrs   Client Info   0  | Resample at the next service interval to monitor.       |              |          |             |            |         |          |          |  |
| Ci   Age   hrs   Client Info   Ci   Chemistro   Chem |   |              | hrs      |             |            |         |          |          |  |
| Filter Age   |   | •            |          |             |            |         |          |          |  |
| Oil Changed   Client Info  |   |              |          |             |            |         |          |          |  |
| Filter Changed Sample Status   |   |              | 0        |             |            |         |          |          |  |
| Normal   |   |              |          |             |            |         |          |          |  |
| Iron   |   |              |          |             |            |         |          |          |  |
| All component wear rates are normal.    Chromium   ppm   ASTM D5185m   >20   1   |   |              |          |             |            |         |          |          |  |
| All component wear rates are normal.    Nicke  | WEAR  | Iron         | ppm      | ASTM D5185m | >100       | 66      |          |          |  |
| Nite   Pipe     Nite   Pipe    | All component wear rates are normal.                    | Chromium     | ppm      | ASTM D5185m | >20        | 1       |          |          |  |
| Silver   ppm   ASTM D5185n   >20   6   |   | Nickel       | ppm      | ASTM D5185m | >4         | 0       |          |          |  |
| Auminum   ppm   ASTM D5186m   >20   6  |   | Titanium     | ppm      | ASTM D5185m |            | 0       |          |          |  |
| Lead   ppm   ASTM DS185m   >40   0   |   | Silver       | ppm      | ASTM D5185m | >3         | 0       |          |          |  |
| Copper   |   | Aluminum     | ppm      | ASTM D5185m | >20        | 6       |          |          |  |
| Tin  |   | Lead         | ppm      | ASTM D5185m | >40        | 0       |          |          |  |
| Vanadium   Vanadium  |   | Copper       | ppm      | ASTM D5185m | >330       | 12      |          |          |  |
| White Metal Yellow Metal   Scalar   Visual NONE   |   | Tin          | ppm      | ASTM D5185m | >15        | 0       |          |          |  |
| Vellow Metal   Scalar   Visual   NONE   NO |   | Vanadium     | ppm      | ASTM D5185m |            | 0       |          |          |  |
| Silicon   ppm   ASTM D5185m   >2.5   16         Potassium   ppm   ASTM D5185m   >2.5   16         Potassium   ppm   ASTM D5185m   >2.0   0         Fuel   WC Method   >5   <1.0       Water   WC Method   >5   <1.0       Water   WC Method   >0.2   NEG       Riggingol   Nitration   Abs/cm   ASTM D7844   >3   0.2       Nitration   Abs/mm   ASTM D7844   >3   0.2       Sulfation   Abs/mm   ASTM D7845   >30   36.1       Silit   scalar   Visual   NONE   NONE   NONE     Debris   scalar   Visual   NONE   NONE   NONE       Appearance   scalar   Visual   NORML   NORM   |   | White Metal  | scalar   | *Visual     | NONE       | NONE    |          |          |  |
| Potassium   ppm   ASTM 05185m   >0   0   |   | Yellow Metal | scalar   | *Visual     | NONE       | NONE    |          |          |  |
| Potassium   ppm   ASTM 05185m   >0   0   | CONTAMINATION   | Ciliana      |          | ACTM DE10E  | 05         | 40      |          |          |  |
| Fuel   WC Method   VC Method | CONTAMINATION   |              | • •      |             |            |         |          |          |  |
| Water   Wc Method   So.2   NEG   So.5   NE | There is no indication of any contamination in the oil. |              | ppm      |             |            |         |          |          |  |
| Glycol   |   |              |          |             |            |         |          |          |  |
| Soot % % "ASTM D7844   >3  |   |              |          |             | >0.2       |         |          |          |  |
| Nitration  |   |              | 0/       |             | . 0        |         |          |          |  |
| Sulfation   Abs/.fmm   *ASTM D7415   >30   36.1         Silt   scalar   *Visual   NONE   NONE         Debris   scalar   *Visual   NONE   NONE   NONE         Debris   scalar   *Visual   NONE   NONE   NONE         Appearance   scalar   *Visual   NORML                                    |   |              |          |             |            |         |          |          |  |
| Silt   Scalar   *Visual   NONE   NONE   NONE   Scalar   Visual   NONE   NONE   NONE   Scalar   Visual   NONE   NONE   NONE   Scalar   Visual   NONE   NONE   Scalar   Visual   NONE   NONE   Scalar   Visual   NONE   NONE   Scalar   Visual   NORML   NORML |   |              |          |             |            |         |          |          |  |
| Debris   Scalar   *Visual   NONE   NORML   NORML  |   |              |          |             |            |         |          |          |  |
| Sand/Dirt   Scalar *Visual   NONE   NONE   NORML   Appearance   Scalar *Visual   NORML   NOR |   |              |          |             |            |         |          |          |  |
| Appearance   |   |              |          |             |            |         |          |          |  |
| Codor   Scalar   *Visual   NORML   NORML   Emulsified Water   Scalar   *Visual   >0.2   NEG  |   |              |          |             |            |         |          |          |  |
| Emulsified Water   scalar   *Visual   >0.2   NEG   |   | • •          |          |             |            |         |          |          |  |
| Sodium   ppm   ASTM D5185m   250   14  |   |              |          |             |            |         |          |          |  |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   10   0   0   0   0   0   0   0   0   |   |              |          |             |            |         |          |          |  |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   10   0   0   0   0   0   0   0   0   | FLUID CONDITION   | Sodium       | ppm      | ASTM D5185m |            | 1       |          |          |  |
| oil. The condition of the oil is suitable for further service.    Molybdenum   ppm   ASTM D5185m   100   533         Manganese   ppm   ASTM D5185m   450   966         Calcium   ppm   ASTM D5185m   3000   2792         Phosphorus   ppm   ASTM D5185m   1150   936         Zinc   ppm   ASTM D5185m   1350   1218         Sulfur   ppm   ASTM D5185m   4250   10551         Oxidation   Abs/.1mm   *ASTM D7414   >25   37.4         Base Number (BN)   mg KOH/g   ASTM D2896   8.5   14.60   |   | Boron        | ppm      | ASTM D5185m | 250        | 14      |          |          |  |
| Molybdenum         ppm         ASTM D5185m         100         533             Manganese         ppm         ASTM D5185m         <1  | , ,   | Barium       | ppm      | ASTM D5185m | 10         | 0       |          |          |  |
| Magnesium         ppm         ASTM D5185m         450         966             Calcium         ppm         ASTM D5185m         3000         2792             Phosphorus         ppm         ASTM D5185m         1150         936             Zinc         ppm         ASTM D5185m         1350         1218             Sulfur         ppm         ASTM D5185m         4250         10551             Oxidation         Abs/.1mm         *ASTM D7414         >25         37.4             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         14.60  |   | Molybdenum   | ppm      | ASTM D5185m | 100        | 533     |          |          |  |
| Calcium         ppm         ASTM D5185m         3000         2792             Phosphorus         ppm         ASTM D5185m         1150         936             Zinc         ppm         ASTM D5185m         1350         1218             Sulfur         ppm         ASTM D5185m         4250         10551             Oxidation         Abs/.1mm         *ASTM D7414         >25         37.4             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         14.60  |   | Manganese    | ppm      | ASTM D5185m |            | <1      |          |          |  |
| Phosphorus         ppm         ASTM D5185m         1150         936             Zinc         ppm         ASTM D5185m         1350         1218             Sulfur         ppm         ASTM D5185m         4250         10551             Oxidation         Abs/.1mm         *ASTM D7414         >25         37.4             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         14.60  |   | Magnesium    | ppm      | ASTM D5185m | 450        | 966     |          |          |  |
| Zinc         ppm         ASTM D5185m         1350         1218             Sulfur         ppm         ASTM D5185m         4250         10551             Oxidation         Abs/.1mm         *ASTM D7414         >25         37.4             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         14.60  |   | Calcium      | ppm      | ASTM D5185m | 3000       | 2792    |          |          |  |
| Sulfur         ppm         ASTM D5185m         4250         10551             Oxidation         Abs/.1mm         *ASTM D7414         >25         37.4             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         14.60   |   | Phosphorus   | ppm      | ASTM D5185m | 1150       | 936     |          |          |  |
| Oxidation         Abs/.1mm         *ASTM D7414         >25         37.4             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         14.60   |   |              | ppm      | ASTM D5185m | 1350       | 1218    |          |          |  |
| Base Number (BN)         mg KOH/g         ASTM D2896         8.5         14.60   |   | Sulfur       | ppm      | ASTM D5185m | 4250       | 10551   |          |          |  |
|  |   | Oxidation    | Abs/.1mm |             |            | 37.4    |          |          |  |
| Visc @ 100°C cSt ASTM D445 14.4 13.3   |   |              |          |             |            |         |          |          |  |
|  |   | Visc @ 100°C | cSt      | ASTM D445   | 14.4       | 13.3    |          |          |  |





Certificate L2367

Report Id: STEBOL [WUSCAR] 06122630 (Generated: 03/21/2024 15:16:13) Rev: 1

Laboratory Sample No.

: HPL0003873 Lab Number : 06122630 Unique Number : 10936781 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 19 Mar 2024 : 20 Mar 2024 **Tested** 

: 21 Mar 2024 - Jonathan Hester Diagnosed

STEVENSON CRANE 410 STEVENSON DR BOLINGBROOK, IL US 60440 Contact: DAVE KOEHNE

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To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: DAVE KOEHNE - STEBOL