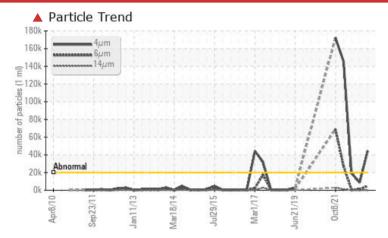


# **PROBLEM SUMMARY**

### Area TM 11 TM 11 FORMING ROLL REDUCER Component Gearbox Fluid ROYAL PURPLE SYNERGY 90/220 (15 GAL)

### COMPONENT CONDITION SUMMARY



#### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| PROBLEMATIC TEST RESULTS |              |           |                   |          |          |  |  |  |  |  |
|--------------------------|--------------|-----------|-------------------|----------|----------|--|--|--|--|--|
| Sample Status            |              |           | SEVERE            | NORMAL   | NORMAL   |  |  |  |  |  |
| Particles >4µm           | ASTM D7647   | >20000    | <b>44546</b>      | 8558     | 19361    |  |  |  |  |  |
| Oil Cleanliness          | ISO 4406 (c) | >21/19/16 | <b>4</b> 23/19/15 | 20/17/13 | 21/16/10 |  |  |  |  |  |

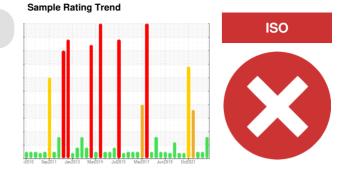
Customer Id: KIMMOBTM11 Sample No.: RP0037898 Lab Number: 06237791 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Don Baldridge +1 <u>don.b505@comcast.net</u>

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



#### There are no recommended actions for this sample.

### HISTORICAL DIAGNOSIS



### 30 Jan 2024 Diag: Don Baldridge

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



#### 05 May 2023 Diag: Don Baldridge

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.









## **OIL ANALYSIS REPORT**

### TM 11 Machine Id TM 11 FORMING ROLL REDUCER

Component Gearbox Fluid

**ROYAL PURPLE SYNERGY 90/220 (15 GAL)** 

### DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| L)               |               | 12010 06020  | 11 Gal2013 Wal2014 |                  | 0et2021     |             |
|------------------|---------------|--------------|--------------------|------------------|-------------|-------------|
| SAMPLE INFORM    | <b>MATION</b> | method       | limit/base         | current          | history1    | history2    |
| Sample Number    |               | Client Info  |                    | RP0037898        | RP0037976   | RP0023578   |
| Sample Date      |               | Client Info  |                    | 15 Jul 2024      | 30 Jan 2024 | 05 May 2023 |
| Machine Age      | hrs           | Client Info  |                    | 0                | 0           | 0           |
| Oil Age          | hrs           | Client Info  |                    | 0                | 0           | 0           |
| Oil Changed      |               | Client Info  |                    | N/A              | N/A         | N/A         |
| Sample Status    |               |              |                    | SEVERE           | NORMAL      | NORMAL      |
| WEAR METALS      |               | method       | limit/base         | current          | history1    | history2    |
| PQ               |               | ASTM D8184   |                    | 25               | 20          | 12          |
| Iron             | ppm           | ASTM D5185m  | >200               | 30               | 18          | 21          |
| Chromium         | ppm           | ASTM D5185m  | >15                | 0                | <1          | 0           |
| Nickel           | ppm           | ASTM D5185m  | >15                | 0                | 0           | 0           |
| Titanium         | ppm           | ASTM D5185m  |                    | 0                | <1          | <1          |
| Silver           | ppm           | ASTM D5185m  |                    | 0                | 0           | 0           |
| Aluminum         | ppm           | ASTM D5185m  | >25                | 1                | 1           | <1          |
| Lead             | ppm           | ASTM D5185m  | >100               | 0                | 0           | 0           |
| Copper           | ppm           | ASTM D5185m  | >200               | 0                | 0           | <1          |
| Tin              | ppm           | ASTM D5185m  | >25                | 0                | <1          | 0           |
| Vanadium         | ppm           | ASTM D5185m  |                    | 0                | <1          | 0           |
| Cadmium          | ppm           | ASTM D5185m  |                    | 0                | 0           | 0           |
| ADDITIVES        |               | method       | limit/base         | current          | history1    | history2    |
| Boron            | nnm           | ASTM D5185m  |                    | 12               | 25          | 23          |
| Barium           | ppm<br>ppm    | ASTM D5185m  |                    | 0                | 0           | 0           |
| Molybdenum       |               | ASTM D5185m  |                    | 0                | 0           | 0           |
| Manganese        | ppm<br>ppm    | ASTM D5185m  |                    | <1               | <1          | <1          |
| Magnesium        | ppm           | ASTM D5185m  |                    | 1                | 0           | 0           |
| Calcium          | ppm           | ASTM D5185m  |                    | 14               | 14          | 15          |
| Phosphorus       | ppm           | ASTM D5185m  | 370                | 421              | 358         | 399         |
| Zinc             | ppm           | ASTM D5185m  | 370                | 48               | 37          | 24          |
|                  |               |              | 11 11 11           |                  |             |             |
| CONTAMINANTS     | 5             | method       | limit/base         | current          | history1    | history2    |
| Silicon          | ppm           | ASTM D5185m  | >50                | 25               | 26          | 24          |
| Sodium           | ppm           | ASTM D5185m  |                    | 6                | 6           | 5           |
| Potassium        | ppm           | ASTM D5185m  |                    | 0                | 1           | <1          |
| Water            | %             | ASTM D6304   |                    | 0.015            | 0.013       | 0.010       |
| ppm Water        | ppm           | ASTM D6304   | >2000              | 156              | 137         | 103.7       |
| FLUID CLEANLIN   | IESS          | method       | limit/base         | current          | history1    | history2    |
| Particles >4µm   |               | ASTM D7647   | >20000             | <b>44546</b>     | 8558        | 19361       |
| Particles >6µm   |               | ASTM D7647   | >5000              | 4776             | 1048        | 552         |
| Particles >14µm  |               | ASTM D7647   | >640               | 166              | 79          | 7           |
| Particles >21µm  |               | ASTM D7647   | >160               | 36               | 16          | 1           |
| Particles >38µm  |               | ASTM D7647   | >40                | 2                | 1           | 0           |
| Particles >71µm  |               | ASTM D7647   | >10                | 0                | 0           | 0           |
| Oil Cleanliness  |               | ISO 4406 (c) | >21/19/16          | <b>2</b> 3/19/15 | 20/17/13    | 21/16/10    |
| FLUID DEGRADA    | TION          | method       | limit/base         | current          | history1    | history2    |
| Acid Number (AN) | mg KOH/g      | ASTM D8045   | 1.33               | 1.45             | 0.16        | 1.47        |

Sample Rating Trend

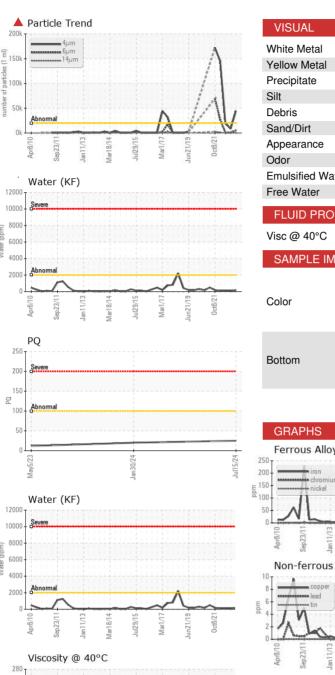
ISO

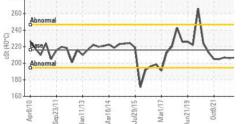


Water (ppm)

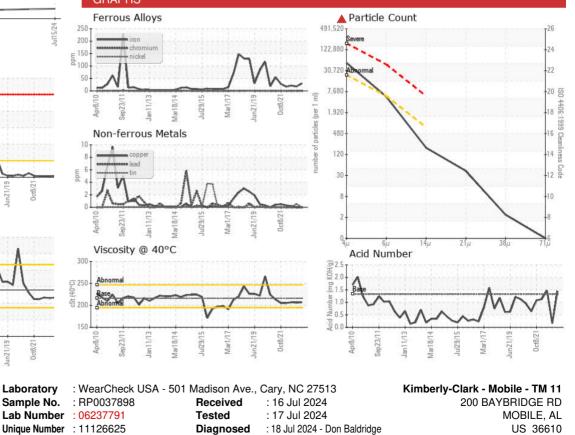
Water (ppm)

# **OIL ANALYSIS REPORT**











Unique Number : 11126625 Test Package : IND 2 (Additional Tests: PQ, PrtCount) 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) F: (251)452-6335

Report Id: KIMMOBTM11 [WUSCAR] 06237791 (Generated: 07/18/2024 17:48:06) Rev: 1

Contact/Location: LARRY WEAVER - KIMMOBTM11

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T:

Contact: LARRY WEAVER

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