

## **OIL ANALYSIS REPORT**

### **Sample Rating Trend**



# FRICK TYSMON 7 HS (S/N GDSH233500195)

Component

**Refrigeration Compressor** 

USPI ALT-68 SC (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Moor

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

#### **Fluid Condition**

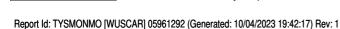
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| 32013 Feb2015 Jun2016 Oct2017 Jun2019 Apr2020 Jun2021 Sep2022 |          |              |            |             |             |             |
|---------------------------------------------------------------|----------|--------------|------------|-------------|-------------|-------------|
| SAMPLE INFORM                                                 | MATION   | method       | limit/base | current     | history1    | history2    |
| Sample Number                                                 |          | Client Info  |            | USP0001909  | USP244664   | USP249055   |
| Sample Date                                                   |          | Client Info  |            | 19 Sep 2023 | 11 Jul 2023 | 28 Mar 2023 |
| Machine Age                                                   | hrs      | Client Info  |            | 141033      | 139476      | 137133      |
| Oil Age                                                       | hrs      | Client Info  |            | 0           | 0           | 0           |
| Oil Changed                                                   |          | Client Info  |            | N/A         | N/A         | N/A         |
| Sample Status                                                 |          |              |            | NORMAL      | NORMAL      | NORMAL      |
| WEAR METALS                                                   |          | method       | limit/base | current     | history1    | history2    |
| Iron                                                          | ppm      | ASTM D5185m  | >8         | 3           | 3           | 3           |
| Chromium                                                      | ppm      | ASTM D5185m  | >2         | 0           | 0           | 0           |
| Nickel                                                        | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Titanium                                                      | ppm      | ASTM D5185m  |            | 0           | <1          | 0           |
| Silver                                                        | ppm      | ASTM D5185m  | >2         | 0           | 0           | 0           |
| Aluminum                                                      | ppm      | ASTM D5185m  | >3         | 8           | 12          | 12          |
| Lead                                                          | ppm      | ASTM D5185m  | >2         | 0           | 0           | 0           |
| Copper                                                        | ppm      | ASTM D5185m  | >8         | <1          | <1          | 0           |
| Tin                                                           | ppm      | ASTM D5185m  | >4         | 0           | 0           | 0           |
| 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  |            | 0           | 0           | 0           |
| Barium                                                        | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Molybdenum                                                    | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Manganese                                                     | ppm      | ASTM D5185m  |            | <1          | <1          | 0           |
| Magnesium                                                     | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Calcium                                                       | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Phosphorus                                                    | ppm      | ASTM D5185m  |            | 1           | 0           | 0           |
| Zinc                                                          | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Sulfur                                                        | ppm      | ASTM D5185m  | 50         | 134         | 144         | 172         |
| CONTAMINANTS                                                  |          | method       | limit/base | current     | history1    | history2    |
| Silicon                                                       | ppm      | ASTM D5185m  | >15        | <1          | <1          | 0           |
| Sodium                                                        | ppm      | ASTM D5185m  |            | 0           | 0           | <1          |
| Potassium                                                     | ppm      | ASTM D5185m  | >20        | 0           | 0           | 0           |
| Water                                                         | %        | ASTM D6304   | >0.01      | 0.004       | 0.008       | 0.003       |
| ppm Water                                                     | ppm      | ASTM D6304   | >100       | 42.9        | 85.6        | 32.6        |
| FLUID CLEANLIN                                                | ESS      | method       | limit/base | current     | history1    | history2    |
| Particles >4µm                                                |          | ASTM D7647   |            | 5592        | 3879        | 2385        |
| Particles >6µm                                                |          | ASTM D7647   | >2500      | 1292        | 828         | 395         |
| Particles >14µm                                               |          | ASTM D7647   | >320       | 44          | 24          | 36          |
| Particles >21µm                                               |          | ASTM D7647   | >80        | 8           | 2           | 2           |
| Particles >38µm                                               |          | ASTM D7647   | >20        | 2           | 0           | 0           |
| Particles >71µm                                               |          | ASTM D7647   | >4         | 0           | 0           | 0           |
| Oil Cleanliness                                               |          | ISO 4406 (c) | >/18/15    | 20/17/13    | 19/17/12    | 18/16/12    |
| FLUID DEGRADA                                                 | TION     | method       | limit/base | current     | history1    | history2    |
| Acid Number (AN)                                              | mg KOH/g | ASTM D974    | 0.005      | 0.015       | 0.013       | 0.015       |



## **OIL ANALYSIS REPORT**





Certificate L2367

**Unique Number** 

Test Package

: 10662505

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.

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Diagnostician

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

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