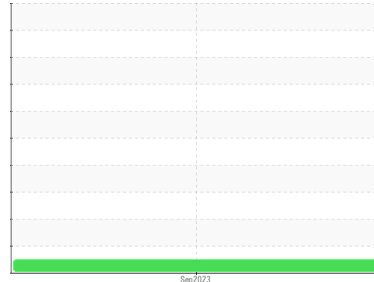




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**HOWDEN C-22**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**M&M 717 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>USP0001764</b>	---	---
Sample Date	Client Info			<b>26 Sep 2023</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Oil Age	hrs	Client Info		<b>6</b>	---	---
Oil Changed	Client Info			<b>N/A</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	<b>0</b>	---	---
Chromium	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m		<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Lead	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>8	<b>0</b>	---	---
Tin	ppm	ASTM D5185m	>4	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	---	---
Manganese	ppm	ASTM D5185m		<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>0</b>	---	---
Calcium	ppm	ASTM D5185m		<b>0</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>0</b>	---	---
Zinc	ppm	ASTM D5185m		<b>0</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>0</b>	---	---

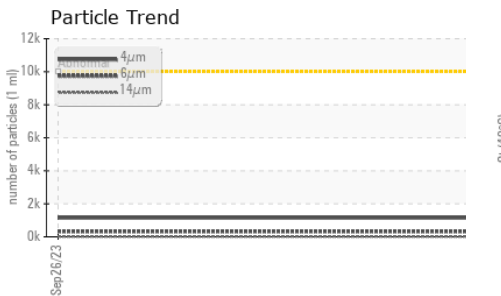
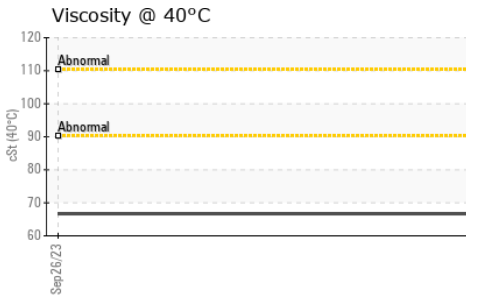
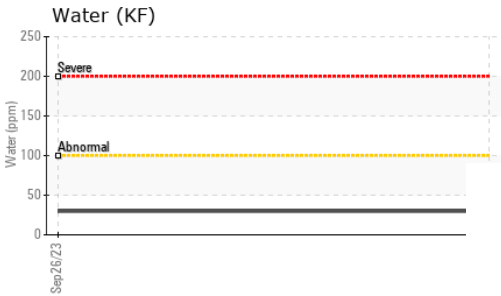
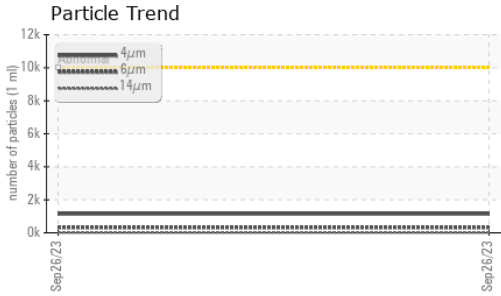
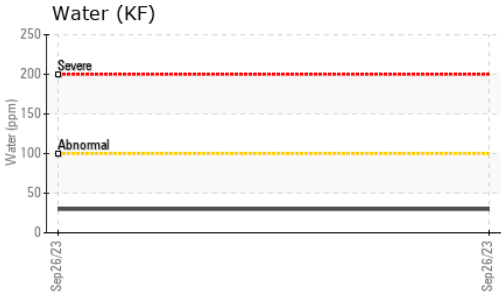
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>0</b>	---	---
Sodium	ppm	ASTM D5185m		<b>0</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Water	%	ASTM D6304	>0.01	<b>0.003</b>	---	---
ppm Water	ppm	ASTM D6304	>100	<b>29.8</b>	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	<b>1148</b>	---	---
Particles >6µm		ASTM D7647	>2500	<b>326</b>	---	---
Particles >14µm		ASTM D7647	>320	<b>17</b>	---	---
Particles >21µm		ASTM D7647	>80	<b>3</b>	---	---
Particles >38µm		ASTM D7647	>20	<b>0</b>	---	---
Particles >71µm		ASTM D7647	>4	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>17/16/11</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974		<b>0.013</b>	---	---



# OIL ANALYSIS REPORT



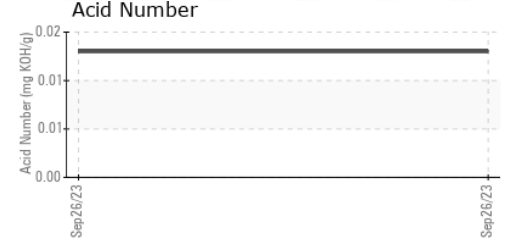
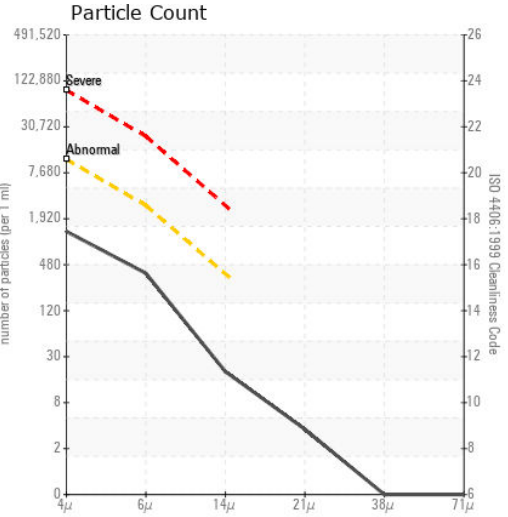
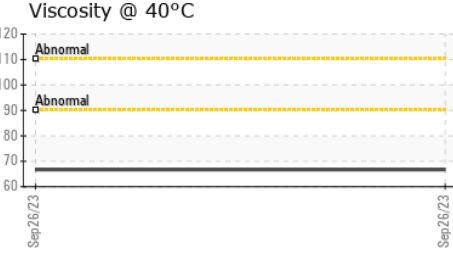
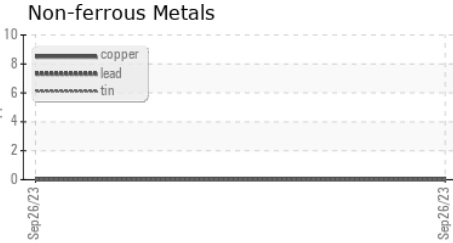
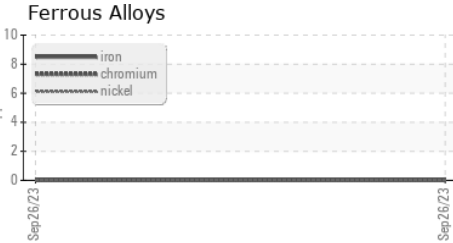
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.01	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	66.7	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0001764 **Received** : 29 Sep 2023  
**Lab Number** : 05965431 **Diagnosed** : 03 Oct 2023  
**Unique Number** : 10671982 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**DOT FOODS**  
 MT STERLING,  
 US  
 Contact: SERVICE MANAGER

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)