

OIL ANALYSIS REPORT

DIRT

Machine Id

#22 SCREW

Gearbox Fluid MOBIL MOBILGEAR SHC 220 (--- LTR)

DIAGNOSIS

A Recommendation

We advise that you check all areas where dirt can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate concentration of dirt present in the oil.

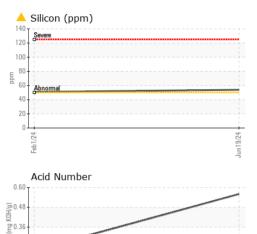
Fluid Condition

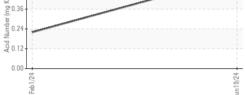
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

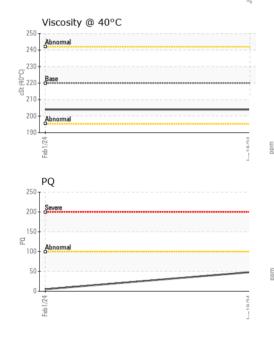
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|---------------|---------------|------------|-------------|-------------|----------|
| Sample Number | | Client Info | | WC0951867 | WC0750574 | |
| Sample Date | | Client Info | | 19 Jun 2024 | 01 Feb 2024 | |
| Machine Age | hrs | Client Info | | 0 | 0 | |
| Oil Age | hrs | Client Info | | 0 | 0 | |
| Oil Changed | | Client Info | | Not Changd | Not Changd | |
| Sample Status | | | | ABNORMAL | NORMAL | |
| CONTAMINATION | ١ | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | NEG | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| PQ | | ASTM D8184* | | 48 | 5 | |
| Iron | ppm | ASTM D5185(m) | >200 | 71 | 50 | |
| Chromium | ppm | ASTM D5185(m) | >15 | 3 | 1 | |
| Nickel | ppm | ASTM D5185(m) | >15 | 2 | <1 | |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | |
| Aluminum | ppm | ASTM D5185(m) | >25 | <1 | <1 | |
| Lead | ppm | ASTM D5185(m) | >100 | 0 | 0 | |
| Copper | ppm | ASTM D5185(m) | >200 | 1 | 1 | |
| Tin | ppm | ASTM D5185(m) | >25 | 0 | 0 | |
| Antimony | ppm | ASTM D5185(m) | >5 | 0 | 0 | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185(m) | | 4 | 2 | |
| Barium | ppm | ASTM D5185(m) | | <1 | 0 | |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | 0 | |
| Manganese | ppm | ASTM D5185(m) | | 1 | <1 | |
| Magnesium | ppm | ASTM D5185(m) | | 7 | 10 | |
| Calcium | ppm | ASTM D5185(m) | | 35 | 141 | |
| Phosphorus | ppm | ASTM D5185(m) | | 214 | 224 | |
| Zinc | ppm | ASTM D5185(m) | | 21 | 22 | |
| Sulfur | ppm | ASTM D5185(m) | | 3468 | 3661 | |
| Lithium | ppm | ASTM D5185(m) | | 2 | 1 | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185(m) | >50 | 5 4 | 51 | |
| Sodium | ppm | ASTM D5185(m) | | <1 | 0 | |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 1 | |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D974* | | 0.56 | 0.22 | |



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| | | method | limit/base | current | history1 | history2 |
|--------------------|------------------|------------------------------------|---|-------------|-------------------------------|-----------|
| Vhite Metal | scalar | Visual* | NONE | NONE | LIGHT | |
| ellow Metal | scalar | Visual* | NONE | NONE | NONE | |
| Precipitate | scalar | Visual* | NONE | NONE | NONE | |
| Silt | scalar | Visual* | NONE | NONE | NONE | |
| Debris | scalar | Visual* | NONE | VLITE | LIGHT | |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | |
| Appearance | scalar | Visual* | NORML | NORML | NORML | |
| Ddor | scalar | Visual* | NORML | NORML | NORML | |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | |
| Free Water | scalar | Visual* | | NEG | NEG | |
| FLUID PROPERTI | ES | method | limit/base | current | history1 | history2 |
| /isc @ 40°C | cSt | ASTM D7279(m) | 220 | 204 | 204 | |
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
| | | | 100 | | | |
| Color | | | | | | no image |
| | | | | | | |
| | | | | 0 | | |
| Bottom | | | | (and and a | | no image |
| | | | | | | ne inage |
| GRAPHS | | | | | | |
| Ferrous Alloys | | | | PQ | | |
| | | | 220 | | | |
| iron chromium | | | 200- | Severe | | |
| nickel | | | 180- | | | |
| | | | 160 | | | |
| | | | | | | |
| Feb 1/24 - | | | + 140- | | | |
| -B- | | | 120- Da | Abnormal | | |
| Non-ferrous Metals | | | 100- | Q | | |
| copper | | | 80. | | | |
| tin | | | 60- | | | |
| | | | 40- | | | |
| | | | 20. | | | |
| | | | | | | |
| | ****** | | | | | |
| eb1/24 | ****** | | 19/24 | 1/24 | | |
| Feb1/24 | ****** | | Jun19/24 | Feb1/24 - | | |
| Viscosity @ 40°C | | | Jun19/2 | Acid Number | | |
| | | | Jun19/2 | | | |
| Viscosity @ 40°C | | | Jun19/2 | | _ | |
| Viscosity @ 40°C | | | Jun19/2 | | | |
| Viscosity @ 40°C | | | Jun19/2 | | | |
| Viscosity @ 40°C | | | (0,60- (0)HO) 0.48- (0)HO) 0.48- (0) 40-0.24- (0) 1.12- (0,00- (0,00- (0,00-)) | Acid Number | | |
| Viscosity @ 40°C | | | (0,60- (0)HO) 0.48- (0)HO) 0.48- (0) 40-0.24- (0) 1.12- (0,00- (0,00- (0,00-)) | | | |
| Viscosity @ 40°C | | | (0,600) (0,00) (0,000) | Acid Number | | |
| Viscosity @ 40°C | Appleby | / Line, Burlin | 2061umr (0,H0) 2048 Will 2000 Will 2 | Acid Number | BMEUSE LIME C | |
| Viscosity @ 40°C | Appleby Recei | | 2061umr (0,H0) 2048 Will 2000 Will 2 | Acid Number | RMEUSE LIME C BOX 1690,, F | ANADA LTI |
| Viscosity @ 40°C | Recei Teste | i ved :21 i d :24 | (0,600 (0,400) (0,400) (0,400) (0,400) (0,000) (0,000) (0,000) (0,000) (0,000) (0,000) (0,000) (0,400) | Acid Number | BOX 1690,, H | ANADA LTI |

Accredited Laboratory Test Package : IND 2 (Additional Tests: TAN Man) To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

cSt (40°C)

Laboratory

Sample No. Lab Number

Unique Number

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