



LIEBHERR

RAPPORT D'ANALYSE D'HUILE

USURE **NORMAL**

CONTAMINATION **NORMAL**

ÉTAT DU FLUIDE **NORMAL**



Identité de la machine

LIEBHERR R920 045555-1705

Composant

Moteur diesel

Fluide

DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMANDATION

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---------------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Numéro d'échant. | | Client Info | | LH0274134 | LH0165219 | LH0165218 |
| Date d'échant. | | Client Info | | 28 Aug 2023 | 07 Oct 2022 | 11 Mar 2022 |
| Âge d la Machine | hrs | Client Info | | 2972 | 2633 | 2341 |
| Âge de l'huile | hrs | Client Info | | 0 | 350 | 0 |
| Âge du filtre | hrs | Client Info | | 0 | 0 | 0 |
| Huile changée | | Client Info | | Changed | Changed | Changed |
| Filtre changé | | Client Info | | N/A | Changed | Changed |
| Statut de l'échant. | | | | NORMAL | NORMAL | NORMAL |

USURE

Les taux d'usure de tous les composants sont normaux.

| | | | | | | |
|-------------|--------|---------------|------|--------------|-----|-----|
| Fer | ppm | ASTM D5185(m) | >100 | 8 | 7 | 10 |
| Chrome | ppm | ASTM D5185(m) | >5 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185(m) | >5 | <1 | 0 | 0 |
| Titane | ppm | ASTM D5185(m) | | 0 | <1 | 0 |
| Argent | ppm | ASTM D5185(m) | >3 | 0 | 0 | 0 |
| Aluminium | ppm | ASTM D5185(m) | >15 | 2 | 1 | 1 |
| Plomb | ppm | ASTM D5185(m) | >30 | 0 | 0 | 0 |
| Cuivre | ppm | ASTM D5185(m) | >125 | 1 | 2 | 4 |
| Étain | ppm | ASTM D5185(m) | >5 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Métal blanc | scalar | Visual* | NONE | VLITE | --- | --- |
| Bronze | scalar | Visual* | NONE | NONE | --- | --- |

CONTAMINATION

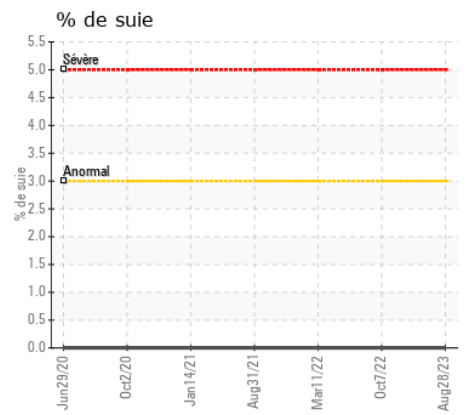
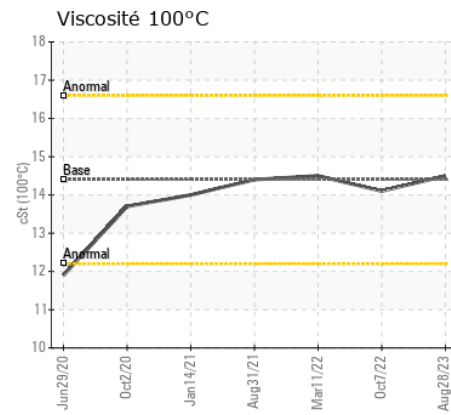
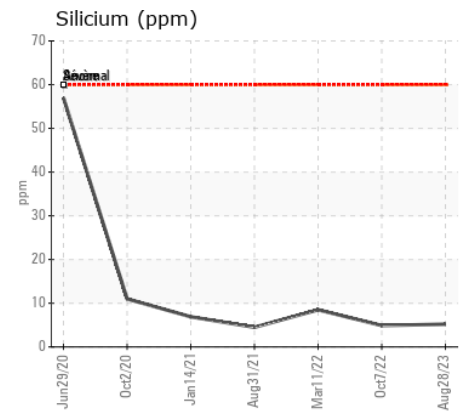
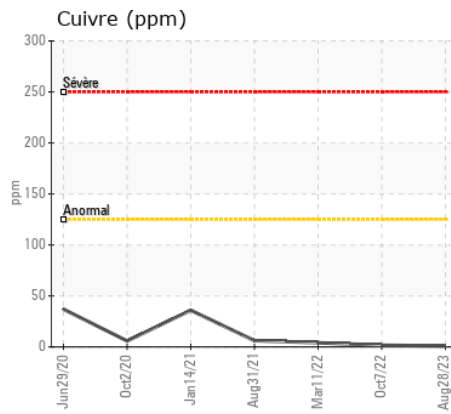
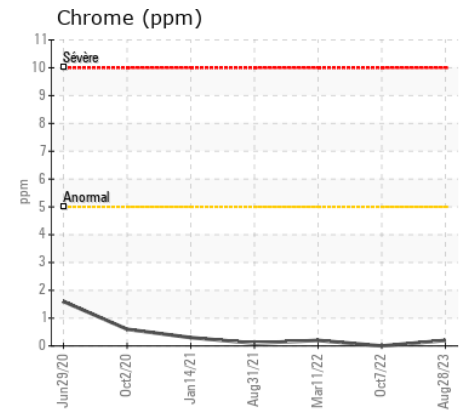
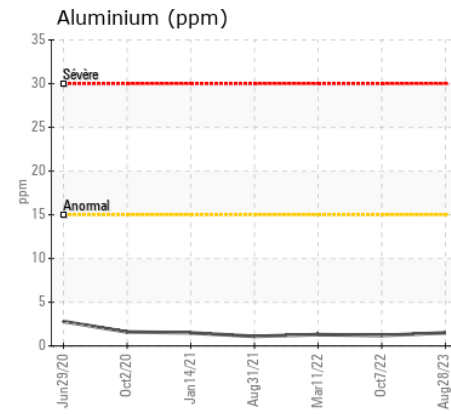
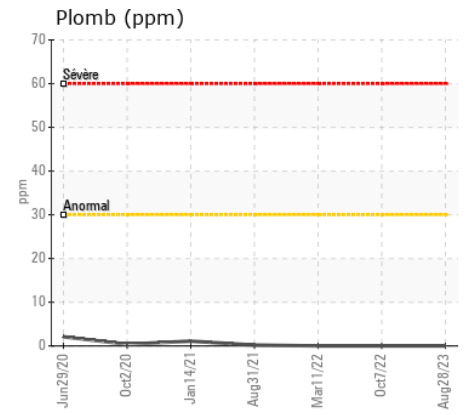
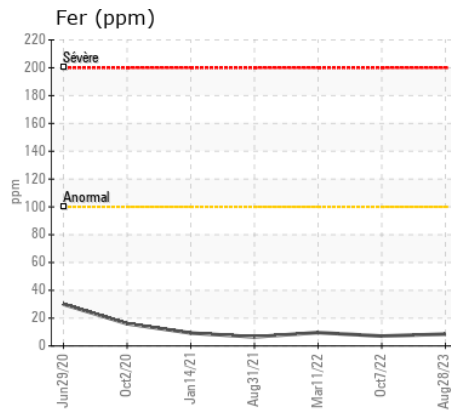
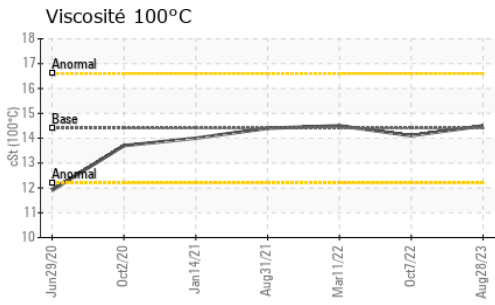
Il n'y a aucun indice de contamination dans l'huile.

| | | | | | | |
|----------------|----------|---------------|-------|----------------|-------|-------|
| Silicium | ppm | ASTM D5185(m) | >60 | 5 | 5 | 8 |
| Potassium | ppm | ASTM D5185(m) | >20 | 8 | 7 | 4 |
| Essence | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Glycol | | WC Method | | NEG | 0.0 | NEG |
| % de suie | % | ASTM D7844* | >3 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 9.3 | 9.1 | 9.2 |
| Sulfatation | Abs/.1mm | ASTM D7415* | >30 | 24.2 | 23.2 | 23.4 |
| Limon | scalar | Visual* | NONE | NONE | --- | --- |
| Débris | scalar | Visual* | NONE | VLITE | --- | --- |
| Saleté | scalar | Visual* | NONE | NONE | --- | --- |
| Apparence | scalar | Visual* | NORML | NORML | --- | --- |
| Odeur | scalar | Visual* | NORML | NORML | NORML | NORML |
| Eau émulsifiée | scalar | Visual* | >0.2 | NEG | NEG | NEG |

ÉTAT DU FLUIDE

L'état de l'huile est acceptable pour la durée de service.

| | | | | | | |
|------------|----------|---------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185(m) | >216 | 4 | 2 | 3 |
| Bore | ppm | ASTM D5185(m) | 250 | 143 | 133 | 40 |
| Baryum | ppm | ASTM D5185(m) | 10 | 0 | 0 | 0 |
| Molybdène | ppm | ASTM D5185(m) | 100 | 4 | 8 | <1 |
| Manganèse | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| Magnésium | ppm | ASTM D5185(m) | 450 | 37 | 63 | 14 |
| Calcium | ppm | ASTM D5185(m) | 3000 | 2349 | 2423 | 2493 |
| Phosphore | ppm | ASTM D5185(m) | 1150 | 1088 | 1129 | 1014 |
| Zinc | ppm | ASTM D5185(m) | 1350 | 1230 | 1236 | 1182 |
| Soufre | ppm | ASTM D5185(m) | 4250 | 3082 | 3168 | 3116 |
| Oxydation | Abs/.1mm | ASTM D7414* | >25 | 19.3 | 19.3 | 15.5 |
| Visc 100°C | cSt | ASTM D7279(m) | 14.4 | 14.5 | 14.1 | 14.5 |



Laboratoire : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
N° d'échantillon : LH0274134
N° de laboratoire : 02578967
Numéro unique : 5632027
Analyse : MOB 1 (Additional Tests: Visual)

Entreprises Hans Gruenwald Inc.
 3756 chein des Sables
 Vaudreuil-Dorion, QC
 CA J7V 0K1
 Contact: Service Manager

Pour discuter ce rapport, contacter le service à la clientèle au 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 La validez de los resultados y la interpretación se basan en la muestra y la información proporcionada.

T:
F: