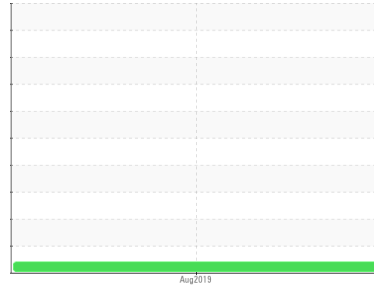




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

KAESER SK 20 6323895 (S/N 1018)

Component

Compressor

Fluid

KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. 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.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-----------------|--------------------|----------|----------|
| Sample Number | Client Info | KCP16341 | --- | --- |
| Sample Date | Client Info | 09 Aug 2019 | --- | --- |
| Machine Age | hrs Client Info | 1562 | --- | --- |
| Oil Age | hrs Client Info | 1562 | --- | --- |
| Oil Changed | Client Info | Changed | --- | --- |
| Sample Status | | ABNORMAL | --- | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|--------------------------|------------|--------------|----------|----------|
| Iron ppm ASTM D5185m | >50 | 2 | --- | --- |
| Chromium ppm ASTM D5185m | >10 | 0 | --- | --- |
| Nickel ppm ASTM D5185m | >3 | <1 | --- | --- |
| Titanium ppm ASTM D5185m | >3 | 0 | --- | --- |
| Silver ppm ASTM D5185m | >2 | 0 | --- | --- |
| Aluminum ppm ASTM D5185m | >10 | 0 | --- | --- |
| Lead ppm ASTM D5185m | >10 | <1 | --- | --- |
| Copper ppm ASTM D5185m | >50 | 10 | --- | --- |
| Tin ppm ASTM D5185m | >10 | 0 | --- | --- |
| Antimony ppm ASTM D5185m | | 0 | --- | --- |
| Vanadium ppm ASTM D5185m | | 0 | --- | --- |
| Cadmium ppm ASTM D5185m | | 0 | --- | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|----------------------------|------------|--------------|----------|----------|
| Boron ppm ASTM D5185m | 0 | 0 | --- | --- |
| Barium ppm ASTM D5185m | 90 | 0 | --- | --- |
| Molybdenum ppm ASTM D5185m | 0 | 0 | --- | --- |
| Manganese ppm ASTM D5185m | | <1 | --- | --- |
| Magnesium ppm ASTM D5185m | 100 | 16 | --- | --- |
| Calcium ppm ASTM D5185m | 0 | <1 | --- | --- |
| Phosphorus ppm ASTM D5185m | 0 | 0 | --- | --- |
| Zinc ppm ASTM D5185m | 0 | 43 | --- | --- |
| Sulfur ppm ASTM D5185m | 23500 | 17105 | --- | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|---------------------------|------------|--------------|----------|----------|
| Silicon ppm ASTM D5185m | >25 | <1 | --- | --- |
| Sodium ppm ASTM D5185m | | 6 | --- | --- |
| Potassium ppm ASTM D5185m | >20 | 5 | --- | --- |
| Water % ASTM D6304 | >0.05 | 0.015 | --- | --- |
| ppm Water ppm ASTM D6304 | >500 | 157.4 | --- | --- |

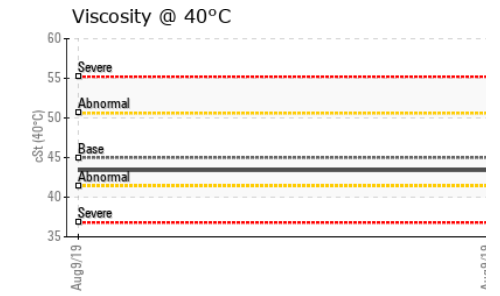
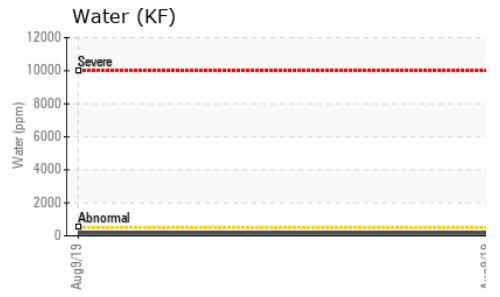
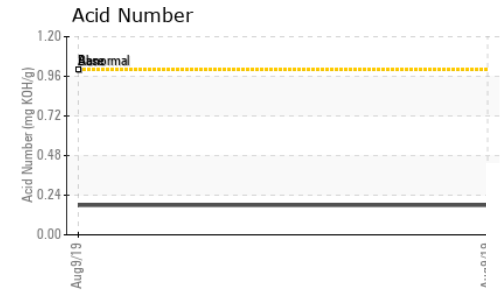
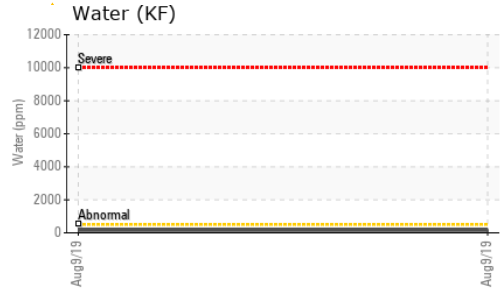
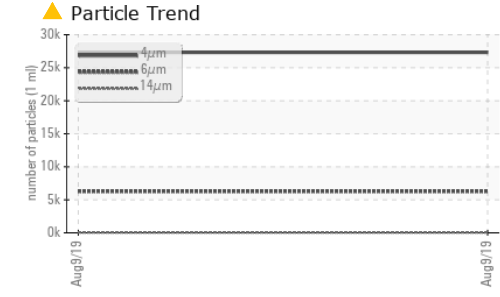
FLUID CLEANLINESS

| method | limit/base | current | history1 | history2 |
|------------------------------|------------|--------------|----------|----------|
| Particles >4µm ASTM D7647 | | 27319 | --- | --- |
| Particles >6µm ASTM D7647 | >1300 | 6289 | --- | --- |
| Particles >14µm ASTM D7647 | >80 | 57 | --- | --- |
| Particles >21µm ASTM D7647 | >20 | 9 | --- | --- |
| Particles >38µm ASTM D7647 | >4 | 0 | --- | --- |
| Particles >71µm ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness ISO 4406 (c) | >--/17/13 | 20/13 | --- | --- |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 |
|--------------------------------------|------------|--------------|----------|----------|
| Acid Number (AN) mg KOH/g ASTM D8045 | 1.0 | 0.179 | --- | --- |

OIL ANALYSIS REPORT

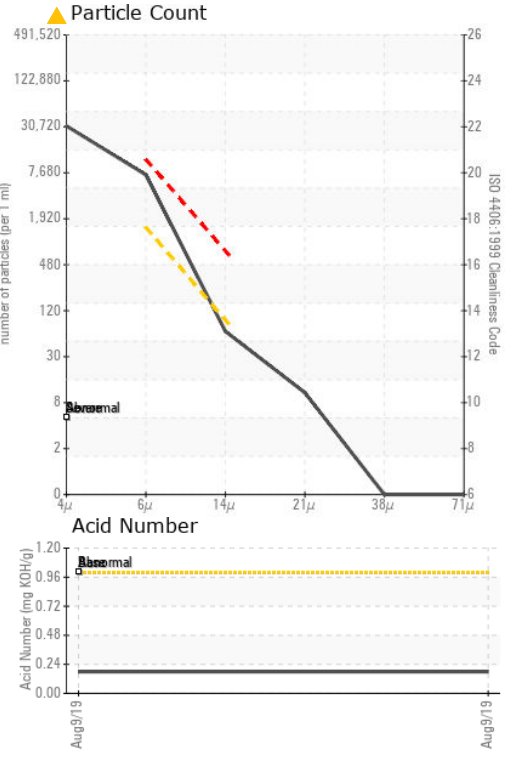
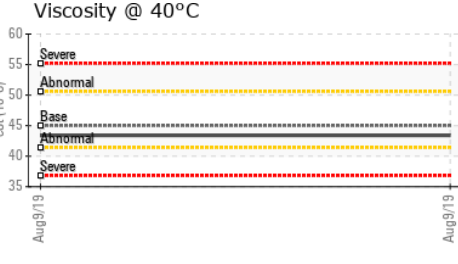
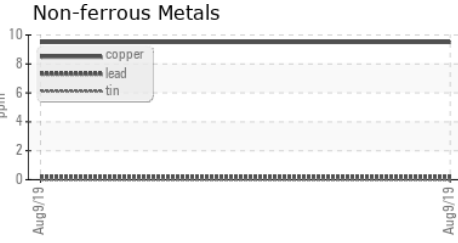
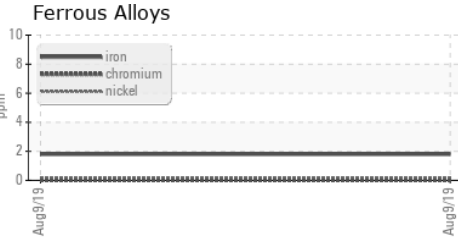


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| 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 | >0.05 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 45 | 43.4 | --- |

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP16341
Lab Number : 04806913
Unique Number : 8751784
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 25 Sep 2019
Tested : 01 Oct 2019
Diagnosed : 01 Oct 2019 - Doug Bogart

DART TRANSIT - STAR LEASING CO LLC
 148 ENTERPRISE DR
 EDWARDSVILLE, IL
 US 62025
 Contact: CHUCK RITTER
 chuck.ritter@starleasing.com

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)