



Lubecore Technical Announcement

EPO Grease

Dear Customer

This communication is being provided after in house testing of pumps filled with defective grease has been completed to determine the best in-field correction to systems which may be filled with this grease.

The field service procedures outline below have been determine to be the best way to deal with this unfortunate matter.

When defective grease is supplied to customers first inform the customer.

What is the problem?

A mistake was made in the Manufacturing process by the grease Manufacturer.

We have been informed by a 3rd party Grease Testing Lab that:

- The particles in the grease are an extreme pressure additive, Zinc Sulfide. It is believed to have been added in too large a volume.
- The Zinc Sulfide particles like to stick together and form black particles in the grease
- This looks like “course hand-ground pepper” in the grease.
- These particles have a positive charge. Steel typically has a negative charge. Therefore, the zinc sulfide particles end up collecting on steel (like the flapper valve, or injector spools)

Which Grease is Affected?

- Affected grease was supplied in black kegs from March 10, 2021, to May 7, 2021.
 - Pumps filled with this grease may be affected.
- New 210 Pumps filled/shipped by LCI with Blue EPO Grease may be affected.
 - If the pump was filled before May 21, 2021, it is likely not affected.
 - If the pump was filled after May 21, 2021, it may be affected.
 - The zinc sulfide particles settle to the bottom of containers (1000kg totes, and 55kg kegs). Therefore, filling from the bottom or top of the tote makes a big difference. Not all pumps are affected equally.

Which Grease is Not Affected?

- No grease in pails has been affected.
 - We have tested the grease in pails and found no evidence of this grease affecting pump operation.
- Lubecore typically provides grease in white kegs. There is no issue with grease in white kegs.

How to proceed?

1. **If the pump is working as normal, no delay in flapper valve action is noticed, there is no issue. No further action is required. (The affects of contaminated grease are near instantaneous; it will be noticed at initial test cycling)**
2. If the pump is NOT working as normal and displays one of the following symptoms:
 - a. Flapper valve sticking, and delayed dropping.
 - i. This delay can range between several seconds to minutes resulting in the system not building pressure or not bleeding in multicycle setting.

- b. Flapper valve does not seal properly.
 - i. Follower plate will jump up when the system is cycled (approx. 1/8" upwards movement)
- 3. If symptoms outline in point 2 are seen the following is Lubecore's recommendation:
 - a. Remove the low-level plug or switch.
 - b. Drain all the grease from the reservoir.
 - i. Apply a bit of air pressure to the overflow in the side of the pump. This will help the follower plate settle to the bottom and removed the grease quickly and cleanly.
 - c. Reinstall the low-level switch or plug.

Note: Our supplier informed us that it is unlikely that the Treated Grease will separate during periods of storage, however they recommend it should be stirred prior to each use. Our supplier has also informed us that the treated grease has similar lubricating properties as regular Lubecore EPO grease and will not cause damage to any system materials.



- 4. Fill the pump full with Lubecore Treated Grease – This will be marked on pails with a purple sticker (see above)
 - a. If Front Mount Timer equipped system:
 - i. Duty mode can be set to "2"
 - ii. System can be operated in a single cycle mode to replicate a multi-cycle after setting to duty mode "2".
 - iii. Disconnect the mainline and let system cycle until Lubecore Treated Light Blue Grease appears out of mainline connection (this is expected to take approximately 5 cycles)
 - iv. If after 5 cycles light blue grease is not coming out of the mainline connection turn off multicyle and increase the duration of the pause time.
 - v. Incrementally increase the pause time to allow the flapper valve time to cycle. If it refuses to cycle, as a last resort, apply some air pressure through the overflow port to encourage the flapper valve to disengage.
 - vi. As soon as light blue treated grease is present at the pump outlet, the mainline can be reconnected and the timer set to operate normally. Ensure the timer has been reset to duty mode "1".
 - b. If In Cab Timer equipped system:
 - i. Place system in a multicyle
 - ii. Disconnect the mainline and let system cycle until Lubecore Treated Light Blue Grease appears out of the mainline connection (this is expected to take approximately 5 cycles)
 - iii. If after 5 cycles light blue grease is not coming out of your mainline connection turn off multicyle and increase the duration of your pause time.

- iv. Incrementally increase the pause time to allow the flapper valve time to cycle. If it refuses to cycle, as a last resort, apply some air pressure through the overflow port to encourage the flapper valve to disengage.
- v. As soon as light blue treated grease is present at the pump outlet, the mainline can be reconnected and the timer set to operate normally. This can be achieved by cycling the vehicle ignition on and off.

Note: Testing has verified that as soon as light blue grease is coming from the pump it will flow through the system; cleaning it such that the system will start working correctly again. The pump and injectors will be cleaned in operation. An example of a flapper valve that has been cleaned by a few pump cycles and is operating in a fully functional manner is shown below.



- 5. The next time the pump is filled, Regular Lubecore Blue EPO Grease should be used.

Sincerely,

Jan Eisses
President