Backpressure Sensing Capability

Our Research and Development Department introduced Pulsarlube M unit, which includes an innovative new function. This function is the Backpressure Sensing Capability function, which protects your M unit as well as your equipment from conditions such as grease line plugging and high backpressure buildup.

If your unit should encounter any such condition, it will automatically go into Motor Overload mode and shut down to instantly protect your equipment. Also, the Ⓜ icon will be clearly displayed on the unit's LCD screen, thereby immediately notifying maintenance personnel of the condition.

The LCD screen also displays the number of days since the unit stopped lubricating, giving you a precise idea of your equipments' lubrication status. This function will tell you exactly how many days it has been since your equipment was last lubricated. The days since proper function icon looks like the following.
E-XXX Days.   i.e. E-10 Days (This means 10 days past since without lubrication)

Basically, the Backpressure Sensing Capability function was placed to protect your equipment if your M unit should encounter any type of extreme resistance (backpressure) that will compromise the unit's proper operation. By no means does this mean that your M unit is malfunctioning. Quite the contrary, it is simply telling you that there is a certain condition that needs to be addressed.

Backpressure buildup is a common obstacle in lubrication that can be easily resolved by understanding a few simple lubrication rules. There are several conditions that will cause the Backpressure Sensing Capability function to activate. These conditions need to be addressed before you reset your unit back to its' normal operation. Make sure to check grease line and back pressure if motor overload reoccur at the same place.

The following is a guideline of things to check when troubleshooting for backpressure.

History and Status of bearing:

It is imperative to know the history/status of the bearing that is going to be lubricated.

1) Bearing may already have layers of hardened grease, due to multiple
    manual lubrications over the years at high temperatures.
    This will cause backpressure buildup.

2) Normal bearings may have been manually lubricated prior to the installation of your automatic
    lubricator(See Fig). This means that sometimes the bearing compartment is already fully packed.
    Attempting to lubricate at this point will create backpressure.

Physical Limitations

It is Vital to know the physical limitations of your unit. Both Maximum and Minimum.
The Maximum distance between the M unit and the point of lubrication is 30ft. This is the maximum distance/backpressure that the M unit can withstand. At this maximum distance, we recommend grease with an NLGI #0 grade. The 30ft line creates backpressure, but grease with an NLGI #0 grade is able to flow through without a problem.   If you are going to install the unit remotely and are going to be using an NLGI #1 grease, we recommend that you use a ¼ in. tube (6mm) and a maximum distance of 15ft (5m). If using NLGI #2 grease use a ¼ in tube (6mm) and a maximum distance of 10ft. (3m).

Grease nipple hole must be checked to see if it has any hardened grease in it or any other types of contamination before installation of the M unit.

Certain applications utilize copper tubing. A common problem with copper tubing is kinking. Make sure that there are no kinks between the M unit and the lubricating point. Another disadvantage is that you cannot see through the tube and look for any obstructions.

Backpressure Sensing Capability function Summary:

If you should encounter an overload status on your M unit, it is very important to go over the history/status of the bearing and check and see if you are within the physical limitations of the M unit mentioned above. After you have checked/corrected all discrepancies, then you can re-install and re-set the M unit.
The Backpressure Sensing Capability function has been installed for the protection of your unit, the protection of your equipment, and most of all for the protection of our customers. It is our way of guaranteeing our customers optimum reliability.

How to clear ⓜ signal:

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┌──────────────────────────────────────────────┐
│  ⓜ Backpressure Sensing Capability function  │
└──────────────────────────────────────────────┘
                      │
                      ▼
┌──────────────────────────────────────────────┐
│  1) Take off M unit from Bearing Block        │
│  2) Run Test Mode (Press TEST Button for 2 sec)│
└──────────────────────────────────────────────┘
           │                        │
           ▼                        ▼
┌──────────────────────────┐  ┌──────────────────────────────────────┐
│ Unit reoccur ⓜ signal    │  │ Unit runs again without ⓜ signal     │
│ within 30 sec.           │  │ within 30 sec.                       │
└──────────────────────────┘  └──────────────────────────────────────┘
           │                               │
           ▼                               ▼
┌──────────────────────────┐        ┌──────────────────────────┐
│ Replacement              │        │ Real Back Pressure       │
│ under warranty           │        └──────────────────────────┘
└──────────────────────────┘                 │
                                             ▼
                                ┌──────────────────────────────────┐
                                │ Reinstall unit ---No replacement │
                                └──────────────────────────────────┘
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