



Increasing Drive Wheel Longevity

Models Affected: All Operator Aboard Battery Extractors

Tech Tip
TT-951

Subject:

Battery Extractor (BE) drive wheel failures are typically one of the following:

- Leaking motor seals
- Worn shaft and key
- Worn or damaged poly on the wheel

Being aware of possible causes of these failures will help avoid premature damage to drive wheel assemblies.

Description:

Damaged flooring or expansion joints in the travel path of the BE, can result in damage to the poly wheels, and could also cause a side load on the motor shaft which could compromise the motor shaft seals. With the BE running on a fixed travel path, a defect in the floor will contact the same spot on the wheel every time it passes over the defect. In order to avoid damage to the wheels and other drive wheel components, any defects in the travel path should be addressed immediately. The travel path should be kept clear of any debris which may become embedded in the poly wheels and could cause damage not only to the wheel but, if left uncorrected, the floor as well.



The travel path issues noted above are also the primary causes of mechanical damage, including premature wear on the shaft and key. Most important to shaft and key longevity is proper assembly. Loctite® 660 should be used on the shaft and key when assembling the wheel to fill any gaps, eliminating movement which would accelerate wear.

Running into the system end stops causes the wheels to stop abruptly while the drive motors are still under pressure, resulting in potential mechanical and seal damage. BHS recommends and offers a high visibility flag kit for the end stops to make operators more aware of the end stop locations.

The drive wheel hydraulic circuit contains a cross port relief valve which acts as a soft start control for the hydraulic motor. This valve allows the BE to gradually power up to full speed and come to a controlled stop. If not set correctly, the BE will accelerate and decelerate too suddenly which is damaging to the mechanical components and motor shaft seals.

Moving an inoperable machine without raising the drive wheels off the floor can also result in seal damage by forcing the wheels to turn without turning the motor. Tech Tip #902 discusses the proper way to move an inoperable BE.

All of the latest Tech Tips, as well as inspection forms and planned maintenance information are available online. Go to BHS1.com and click on "Technical Literature" under the "Library" tab for the latest available information.

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