Product Update

SER 21-005

SC1500-GHS Power Management Issues

July 5, 2021

PURPOSE

There have been some reports of electrical component failure within the SC1500GHS. This bulletin is to clarify some of the causes of electrical component failure as well as some misconceptions.

COMPLIANCE CATEGORY	PRIORITY CODE
☐ Safety Failure to comply with this product update could result in personal injury and/or death. Compliance is mandated within a specific operating time.	☐ 1 Prior to unit startup or prior to continued operation (Immediate Action Required)
☐ Compliance Required Identifies the need for action to correct a condition that, if left uncorrected, may result in reduced equipment reliability or efficiency. Compliance may be required within a specific operating time.	☐ 2 At first opportunity (Prior to Next Scheduled Maintenance Interval)
☐ Optional Identifies changes that may be beneficial to some, but not necessarily all. Accomplishment at customers discretion.	☐ 3 Next Scheduled Maintenance Interval
☒ Notification Customer communication	☒ 4 At Your Convenience

PRODUCT MODELS AFFECTED

☐ SC1000/1500	☐ SC30	☐ SC40	☐ Zmac	☐ Astro	☐ ST-17	☐ ST-19
☐ ST-26	☐ ST-180	☐ Platforms	☐ BAP	☐ TAP	☒ Other: SC1500 GHS	
☐ Hoist Accessories	☐ Platform Accessories	☐ Rigging Accessories	☐ Safety Accessories			

COMPONENT SYSTEM

☒ Electrical	☐ Mechanical	☐ Safety	☐ Other:

ACTION REQUIRED

Like every hoist with a supply cable, the voltage required to operate the SC1500-GHS needs to be properly managed to ensure adequate voltage is provided. The length of the power cable is important as the span of the distance from the power source to the hoist may cause a voltage drop which would require a transformer to bring the hoist to proper start and run voltages. Low voltage can not only cause damage to electrical components in the hoist but can also prevent lifting of the rated load which can often be thought to be an overload situation.

To prevent overheating, verify your run voltage and starting voltage with your system set up for use and if necessary, utilize a boost transformer. As a general rule, the running voltage for the SC1500-GHS should be between 195V and 229V. If your running voltage is lower than 195V, you will require a boost transformer. More information to help you decide if a boost transformer is required can be found below.

- **Run Voltage:** The GHS Hoist rated at 1500# is a high-speed hoist operating at 70ft/min will draw 208 Volts and 20Amps. Voltage loss can be 15V/250ft through power cable and hoist draw.
- **Starting voltage:** The initial start of the hoist will drop the voltage another 12-15 Volts below run voltage. If voltage is too low this can cause insufficient rpm to trip the centrifugal switch thus keeping the start windings powered longer than normal, which causes high amperage and overheating issues which can cause component damage if power isn't managed correctly.
- **Boost Transformer:** Use a boost transformer at the source of power supply if the Run Voltage drops below 208Volts to insure sufficient Start Voltage at rated load. Boost Transformer increase the voltage by 10%.

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To prevent overloading, the following needs to be taken into consideration. The weight of the items used needs to be weighed to ensure that the rated load can be lifted when providing proper voltage as outlined below:

1. Weight of False Car (verified with proper alignment and no binding on rails)
2. Weight of Hoist = 130#
3. Weight of Wire Rope = 17lbs per 100ft for 5/16 5x26
4. Power Cord = 33lbs per 100ft suspended from false car for 10/3 cable (remember voltage loss per calculations above)
5. Persons on Platform = estimate 250lbs/person min
6. Tools/Equipment on Platform.

When servicing the GHS hoist there is a separation line within the rotor of the motor that is often thought to be a crack in the main body of the rotor. This is not a crack, but a line that is a part of the manufacturing process.

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