

The start capacitor of a single-phase hoist is designed to give the hoist a "kick start" by providing some extra power at startup. When a hoist starts under load it needs some help for a split second to get up to speed.

The start capacitor is removed from the circuit using the centrifugal switch and centrifugal mechanism. The actual timing of when this switch removes the start capacitor is regulated by the speed of the rotor inside of the motor.

Symptoms of a bad start capacitor include:

- While the hoist is under load and the UP button is pushed in, the hoist will run downward.
- Operating the hoist in the UP direction without a load, the hoist will run up. This can be described as having the ability to run up only with a running start.
- If a start capacitor blows, it typically blows oil out of the top of the capacitor. This oil has a distinct smell to it.

Inspection Procedure

- Visual inspection of a start capacitor is generally the only inspection needed to evaluate condition.
- With a multi-meter that can check for microfarads (μf or mf) it is possible to determine condition, when obvious signs are not present.
- Without a meter that can check for mf, try replacing the suspected capacitor with a known good capacitor and check for normal operation.

Corrective actions: Replace damaged or non-working parts as required. Make sure all electrical connections are secure. *Note: Before handling any capacitor, make sure that it has been safely discharged.*

For questions or comments, contact Customer Service at 1-800-560-CLIMB (2546) or customerservice@safeworks.com.