

Most frequently asked questions from users in the entertainment industry

Q. How much load can I lift with my ProLyft?

A. While the hoist has the capability to pick up more than its rated capacity, you should never attempt to load it beyond its safe working load.

Q. Does the ProLyft have something built into it to prevent overloading?

A. The hoist has a clutching device (load protector) built into the gear train that will prevent the operator from lifting gross overloads. The protector is not designed to use as a weighing device to determine what load can be safely lifted.

Q. When the load protector is sensing an overload, how will I know it's working?

A. You will hear the hoist running but you will see that the load is either moving very slowly or not at all. To correct the situation you must remove the excess loading, at which time the hoist will return to its normal operation. You may also hear a chattering noise coming from the hoist and/or see some vibration in the load chain. This is perfectly normal and unless the clutch is slipped for long durations, will not cause any damage to the hoist.

Q. How can I tell how much load the hoist is picking up?

A. There are several ways to determine loading:

- Calculate the weight based on information given by the manufacturers of the equipment you are lifting. This is OK if the calculated loads are way below the capacity of the hoist, but is not the most reliable method you can use.
- Use a dynamometer to actually weigh the point.
- Use load cells that can be remotely read on a computer.

Q. What is the design factor of the ProLyft?

A. The hoist itself has a design factor of 5:1 and the chain has a minimum design factor of 6,4:1.

Q. Does the design factor stay the same during the entire life of the hoist?

A. No. A chain hoist is a machine that has moving parts that are subject to wear. Beyond the wear factor, the excessive handling and subsequent abuse lead to physical damage that can significantly affect the ultimate strength.

Q. Can anything be done to get the design factor back to where it was when it left the factory?

A. Regular inspections and maintenance will insure maximum safety and give you added benefit of not having to work on your hoists while on the road.

Q. How often do I have to inspect my hoists?

A. Prolyte recommends that if the hoists are used for rental that they be inspected after each rental and serviced at least once a year. If they are used for a tour, they should be serviced at the end of the tour or a minimum of once a year.

Q. Do I need to maintain records when I service my hoists?

A. Prolyte recommends that you maintain written records by serial number every time you inspect and/or do any maintenance work on your hoists.

Q. Do I have to attend a Motor School to be qualified to work on ProLyft hoists?

A. While attending a school does enhance your knowledge, you do not have to attend a school to be a competent motor technician. Nowhere in any of the codes, laws, or standards is there any mention that an individual has to be authorized, certified, or licensed to perform maintenance work. The codes, laws, and standards do however say the individual must be competent.

Q. What are the qualifications for an individual to be competent?

A. The definition that was developed by the ESTA Rigging Work Group for the Technical Standards Committee (TSC) which is an ANSI accredited organization is as follows:

Competent: A person who is capable of identifying existing and predictable hazards in the workplace and who is authorized to take prompt corrective measures to eliminate them.

Q. Can a ProLyft be used to hang loads over people's heads?

A. It is preferred that the load always be tied off (dead hung) with auxiliary chains or cable before access to the area beneath the load is permitted. As an alternative, the system may be designed such that malfunction or failure of one hoist's load bearing components does not cause load loss and/or overloading of any other hoist in the system. Note that in such a system, hoist performance and function must be monitored visually or with the use of load cells.

Q. What factor should I use to take into account for impact loading; load acceleration, and the forces generated as the hoist brake stops the load?

A. Many factors influence the load imposed on a support structure such as the speed of the hoist, the weight of the load, the stiffness of the support structure and the distance from the load to the support. As a general rule of thumb, industrial crane manufactures use a design factor of 1.15 for impact loading. Due to the nature of the entertainment industry, Prolyte recommends that a minimum factor of 1.25 be used and that a qualified individual makes an assessment of the situation.

Qualified Person: A person who, by possession of a recognized degree or certificate of professional standing, or who, by extensive knowledge, training, and experience has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.

Q. How long does it take a 1 ton Model ProLyft to go from a dead start up to full (4m/min) speed and how long for the load to stop after you take your finger off the go button?

A. When the hoist has full rated load on the hook, it takes about half a second to attain full speed.