

## SUGGESTED ROPE USE & CARE

### ROPE USE

**WORKING LOADS** - It is impossible to establish hard and fast recommendations regarding working loads due to the wide range of rope use, rope conditions, exposure to several factors affecting rope behavior, and the degree of risk to life and property involved. The tabulations for working loads are based on new, unused rope in excellent condition. If possible injury to people or damage to property exist, working loads should be reduced. Never increase the working load beyond given guidelines without expert advice as to the conditions and risk involved. Figures given as working loads are void if the rope has been subjected to dynamic loading, high temperatures, long periods of load, extreme stress, improper storage or improper use. Inspect the bottom platform carefully. Look for any signs of excessive wear, cracks or damage of any kind. Turn basket over and check the bottom for any excessive wear or cracks as well. If any of these conditions are found, the PWB should be taken out of service and replaced.

**DYNAMIC LOADING** - Occurs when rope is subjected to sudden or extreme stress such as starting or stopping of a load. The effect of dynamic loading is greater on low-elongation rope, such as polypropylene than on high-elongation rope, such as nylon. Also, the effect is greater on a short rope than a long rope.

**TENSILE STRENGTHS** - Are determined from tests on new, unused rope in accordance with standard test methods of the Cordage Institute, 350 Lincoln St., Hingham MA 02043.

**OVERLOADING** - Avoid sudden strain. When a working load has been used to select a rope, the Load must be handled slowly and smoothly to Minimize dynamic effects and avoid exceeding The provision for them.

**ABRASION** - All rope will be severely damaged if subjected to

rough surfaces or sharp edges. Chocks, winches, drums, and other surfaces must be kept in good condition and free of burrs and rust. Pulleys must be free to rotate and should be of the proper size to avoid excessive wear. Keep rope clean. Dirt and grit will act as an abrasive and will damage the rope fibers.

**RECOIL** - Never stand in line with rope under tension. Should the rope fail, it will recoil with considerable force. This could cause serious injury to persons anywhere in the vicinity. This danger can exist from fittings within the ropes safe working load. Check all fittings, bolts, shackles, splices and so forth before using.

**HEAT** - Synthetic ropes can lose up to 50% of their strength when used or stored at temperatures above 140 degrees Fahrenheit. Slippage surging on a capstan or winch will cause localized overheating, resulting in severe loss of tensile strength. Consult the manufacturer for recommendations as to the size and type of rope for a proposed continuous heat exposure condition.

**KNOTS & SHARP BENDS** - Can decrease rope strength by as much as 50 percent. Use the manufacturer's recommended splices and avoid sharp bends for maximum efficiency.

**CHEMICALS** - Most synthetic ropes are resistant to oil, gasoline, paint, and most chemicals. Natural fiber ropes can be severely damaged by exposure to chemical fumes or actual contact. Consult the manufacturer for specific chemical exposure.

### ROPE STORAGE

Synthetic ropes may be weakened by prolonged exposure to ultraviolet rays or extreme heat. Store out of direct sunlight in a cool, dry, and well ventilated place.