For other operating temperatures or products, contact Crosby Engineering.

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# **General Information**

# GENERAL CAUTIONS AND WARNINGS

information.

Crosby Group products generally are intended for tension or pull. Side

loading must be avoided, as it exerts additional force or loading which

Welding Crosby load support parts or products can be hazardous.

Knowledge of materials, heat treatment, and welding procedures are necessary for proper welding. Crosby Group should be consulted for

The assigned Ultimate Load Rating of Crosby Group products for the

catalog ultimate strength for the rope parts, when totaled, may exceed

The Working Load Limit of a sling must not exceed the lowest Working

The recommended Proof Load on all items in this catalog is 2 times

Products that Crosby intends for swaging are identified in this catalog.

For proper swaging machine training, operations and die selection,

refer to specific product section in this manual. To develop other product for swaging requires knowledge of materials, heat treatment,

product design, die design and performance of the final product.

Use only new genuine Crosby parts as replacements when servicing

Crosby products are to be considered as sparking, unless otherwise

Product Label Replacement - In accordance with ANSI535.4-1991,

"Product Safety Labels" should be periodically inspected and cleaned.

"Product Safety Labels" should be replaced when they are no longer

legible. Current Crosby warning and application labels, for applicable

Two decimal and fractional dimensions shown in catalog are intended

as nominal dimensions only. If three decimal dimensions are shown,

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products, are available from The Crosby Group LLC.

contact Crosby for tolerance information.

reeving of wire, manila, or synthetic rope is based upon design; the

the product is not designed to accommodate.

the assigned Ultimate Load Rating.

or repairing Crosby products.

noted.

Load Limit of the components in the system.

the Working Load Limit unless otherwise shown.

All products manufactured by The Crosby Group LLC, are sold with the express understanding that the purchaser is thoroughly familiar with the safe and proper use and application of the product.

Responsibility for the use and application of the products rests with the user. The Crosby Group disseminates products warnings and end user application information through various channels. In addition, Crosby provides formal product training seminars and our engineering personnel are readily available to answer your technical questions. For more information read the Crosby General Catalog, refer to Crosby's web site @ www.thecrosbygroup.com, and contact your Crosby distributor or Crosby direct at 918-834-4611.

Failure of the product can occur due to misapplication, abuse, or improper maintenance. Product failure could allow the load to become out of control, resulting in possible property damage, personal injury or death.

There are numerous government and industry standards that cover products made by Crosby. This catalog makes no attempt to reference all of them. We do reference the standards that are most frequently asked about.

Ratings shown in Crosby Group literature are applicable only to new or "in as new" condition products.

Load Limit ratings indicate the greatest force or load a product can carry under usual environmental conditions. Shock loading and extraordinary conditions must be taken into account when selecting products for use in a system.

In general, the products displayed in Crosby Group literature are used as parts of a system being employed to accomplish a task. Therefore, we can only recommend within the Working Load Limits, or other stated limitations, the use of products for this purpose.

The Working Load Limit, or Design Factor, or Efficiency Rating of each Crosby product may be affected by wear, misuse, overloading, corrosion, deformation, intentional alteration, and other use conditions. Regular inspection must be conducted to determine whether use can be continued at the catalog assigned WLL, a reduced WLL, or whether the product must be withdrawn from service.

Specific warning and application instructions are included in this catalog. The instructions can be found at the end of each product section. The symbol shown to the right can be found on the page for products that have application instructions included in this catalog. The page numbers that the specific product information can be found are shown in the box for easy reference.

## Low Temperature Service

Crosby forged and cast steel products can be used in general service conditions down to temperatures of -40° F (-40° C). McKissick blocks can be used in general service conditions down to temperatures of -4° F (-20° C). At temperatures from 0° F to -40° F (-18° C to -40° C), good rigging practice requires special attention in the following areas.

- 1. Lifting should be performed at a steady rate. Shock loading should be avoided.
- 2. Equipment containing bearings should have increased inspection and maintenance schedule, and may require special lubrication.
- 3. All lifting equipment should be given a thorough visual inspection before each lift.
- 4. Remove nicks, gouges, or cracks by grinding (5% maximum material removal).
- 5. Do not use fittings that have been welded or modified after leaving the factory.
- 6. If determined to be necessary by the user, lifting equipment should undergo periodic inspection by dye penetrant or magnetic particle surface inspection.

For operation at temperatures below -40° F (-40° C), consider "Cold Tuff" products or contact Crosby Engineering.

### **Elevated Temperature Service**

Crosby forged and cast steel products can be used in general service conditions up to temperatures of 400° F (204° C). The following should be considered when operating up to temperatures of 400 ° F (204° C).

- 1. Products that contain non-ferrous materials, and lubricants, plastics, etc. may be adversely affected by high temperatures, and typically should not exceed 200° F (93° C).
- 2. Galvanized, plated or painted fittings may suffer some or total degradation of the surface finish.
- 3. Extended exposure to elevated temperatures can cause severe surface scaling and significant permanent reduction of properties.

# 4. Repeated heating and cooling to room temperatures can result in temper embrittlement

**SEE APPLICATION AND** 

On Page 00

WARNING INFORMATION