



HG-223


# Turnbuckles



HG-228

The Market Leader: Yesterday, Today and Tomorrow

## “Crosby: There is No Equal”

DESIGN	COMPETITION	CROSBY
<p>The theoretical reserve capability of turnbuckles should be five times the Working Load Limit (FF-T-791). Known as the DESIGN FACTOR, it is usually computed by dividing the catalog ultimate load by the Working Load Limit. The ultimate load is the average load or force at which the product fails or no longer supports the load. The Working Load Limit is the maximum mass or force which the product is authorized to support in general service. The design factor is generally expressed as a ratio, such as 5 to 1.</p>	<p><b>Ask: What is the design factor?</b></p> <p>Most competitors do not provide turnbuckle assemblies that exceed Crosby’s Working Load Limits with a design factor of 5 to 1.</p>	<p>All turnbuckles are designed with a design factor of at least 5 to 1. Crosby turnbuckles have the highest Working Load Limits in the industry. Crosby working load limits and design factors are based on extensive testing.</p>
<p><b>HEAT TREATMENT</b> Heat treatment assures the uniformity of performance and maximizes the properties of the steel. This assures that each turnbuckle will meet its rated strength. The requirements of your job demand this reliability and consistency. All turnbuckle bodies should be normalized and end fittings should be normalized or quenched and tempered in order to assure uniformity. These heat treat processes develop a tough material that reduces the risk of a brittle, catastrophic failure, and assures the performance of the turnbuckle assembly.</p>	<p><b>Ask: Do they utilize the combination of heat treatment that assures the performance of the turnbuckle assembly?</b></p> <p>Most normalize both the turnbuckle body and end fittings. Some provide turnbuckles in an “as forged” condition.</p>	<p>All turnbuckles are heat treated. Bodies are normalized, and end fittings are quenched and tempered or normalized. These heat treat processes provide a turnbuckle assembly that has superior impact and fatigue qualities and assures performance.</p> 
<p><b>GALVANIZE AND THREAD FORM</b> Galvanizing provides the best resistance to corrosion. Turnbuckle ends are the most highly stressed part of the assembly. This stress is at its peak at the root of the threaded shank. The turnbuckle ends should be threaded with a modified thread that minimizes the stress at the root of the thread.</p>	<p><b>Ask: Do they use the modified UNJ thread?</b></p> <p>Most galvanize their turnbuckles but do not utilize the modified thread.</p>	<p>All turnbuckles are available galvanized. Turnbuckle ends are threaded with a modified UNJ thread. This thread form, in conjunction with quench and tempering gives Crosby turnbuckles their superior impact and fatigue performance.</p>
<p><b>FULL LINE AND IDENTIFICATION</b> The proper application of turnbuckles requires that the correct type and size of turnbuckle be used. The turnbuckle size, the manufacturer’s LOGO, and a product identification code should be clearly and boldly marked in the end fittings as well as in the turnbuckle body. Traceability of the material chemistry is essential for total confidence in the manufacturer of the product. Availability over the full range of sizes of hook, eye, and jaw type turnbuckle assemblies are essential for flexibility in the design of a total system.</p>	<p><b>Ask: Do they have a traceability system?</b></p> <p><b>Ask: Is the full range of type and size turnbuckles offered?</b></p> <p>Most competitors do not have the full line that Crosby produces, or a traceability system.</p>	<p>Crosby forges its logo, sizes, and the Product Identification Code (PIC) into each component of its full line of hook, jaw, and eye type turnbuckles.</p>



Remember, “When buying Crosby, you’re buying more than product, you’re buying Quality.”