# TURTLE PLASTICS

www.turtleplastics.com

## —INTRODUCTION—

### CRIBBING, BLOCKING & SHORING STABILIZATION SYSTEMS FOR THE RESCUE, CONSTRUCTION, MINING, AND OIL/GAS INDUSTRIES

**During the use of various lifting and stabilization devices, it is critical that cribbing always be used as a backup system. Examples of lifting and stabilization devices requiring backup cribbing are: lifting bags, jacks and struts.**

**"WORKING LOAD"** also known as "design load" or "safe load", is generally a fraction of the "ultimate strength." "Ultimate strength" refers to the force required to cause complete failure of a supporting structure. "Work load" determines the size and number of box cribs required. "Work load" should be no more than 1/3rd of "ultimate strength."

**"BOX CRIB"** is so named because of the box that is formed when the pieces are set. The crib MUST be on a flat, level surface and the top tier of the crib should be solid; that is, with several pieces laid side by side so that there are no openings, or topped with a solid plate that distributes the weight down to the contact points.

**WOOD** has historically been used to crib. Due to variations in the quality of ANY GRADE AND SPECIES OF WOOD, it is impossible to predict the load capacity for any individual box crib. For example, Douglas fir may be recommended, but strength will be unknown due to unseen knots, cracks, rot, or dryness.

**COMPOSITE CRIBBING** is more uniform and not subject to weather or rot. Lateral stability will be significantly improved over wood because of the interlocking "Lincoln Log" and pyramid configurations. There is, of course, much more consistency in the formulation of the resin and strict production controls regarding temperature, back pressure control, and cooling procedures.

**SOME GUIDANCE** is provided by the attached excerpt from the U.S. Army Corps of Engineers Urban Search and Rescue Program—"Shoring Operations Guide." This guide suggests that a two-member, 4″ by 4″ box crib can support 24,000 lbs. or 6,000 lbs. at each contact point (THIS IS WHY IT IS VITALLY IMPORTANT THAT THE TOP TIER DISTRIBUTE THE LOAD EVENLY). That same 4″ by 4″ crib, in a three-member crib, could support about twice that, or 48,000 lbs. A 6″ by 6″ will support a 60,000 lb. load using a two-member crib, and twice that using a three-member crib. Testing by independent laboratories will provide predictable failure.

**THE USER MUST BE FAMILIAR WITH THIS GUIDE AND ONLY THE END USER CAN DETERMINE LOAD CAPACITY. ANY BENDING, DEFLECTION, SAGGING, BULGING, OR DEFORMITY WILL NECESSITATE ADDITIONAL CRIBS. CUSTOMER ASSUMES INSPECTION AND MAINTENANCE OF PRODUCTS ON A ROUTINE BASIS TO ENSURE SAFETY.**

AS THE USE OF OUR PRODUCTS UNDER USER'S CONDITIONS ARE BEYOND OUR CONTROL, NO WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, IS MADE CONCERNING OUR PRODUCTS.

**DISCLAIMER:** UNDER NO CIRCUMSTANCES SHALL COMPANY BE LIABLE TO THE ORIGINAL PURCHASER AT RETAIL OR ANY OTHER PERSON FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES, WHETHER ARISING OUT OF BREACH OF WARRANTY, BREACH OF CONTRACT, OR OTHERWISE. COMPANY SHALL IN NO EVENT BE LIABLE FOR ANY BREACH OF WARRANTY IN AN AMOUNT EXCEEDING THE PURCHASE PRICE OF ANY PRODUCT, NOR WILL COMPANY BE BOUND BY ANY STATEMENT OR REPRESENTATION AS TO THE QUALITY OR PERFORMANCE OF ANY PRODUCT.

**FURTHER INFORMATION:** Should you require further information, please call us at extention 202. Also, should you wish to arrange for a visit by one of our Turtle Plastics team members trained in cribbing issues, please call us.

**Dennis Hildebrandt**
Vice President/Director of Sales
440-242-5886

**Kristin Saez**
Corporate Sales Executive
440-282-8008 Ext. 211