



Dock Board and Dock Plate Replacement

Bluff Manufacturing has become a leading provider of steel and aluminum dock boards and aluminum dock plates to companies like yours throughout North America. Our long-standing commitment to the highest quality product and outstanding customer service has helped to sell our dock solutions. Likewise, our attention to the safety, longevity and productivity of our products is unsurpassed in the industry. In addition, we take your safety and the safety of your personnel quite seriously as witnessed by Bluff's initiative in establishing ANSI Standard MH30.2 testing for our dock boards and plates. The ANSI Standard MH30.2 contains mechanical and structural design guidelines. Bluff's rigorous testing, which takes place right in our own weld shop, assesses overall board/plate strength as has been a long standing industry practice. Bluff takes an additional step and, using the ANSI Standard MH30.2, performs testing which sets finite limits for deflection of product while under load, safeguarding the integrity of the slope of the ramp in use. This expanded safety testing, in conjunction with operation and maintenance standards, ensures your safety and empowers you to make better product-based buying decisions. Clearly Bluff offers both safety and "Service You Can Stand On".

While our dock boards and dock plates are the best and safest in the country, we do recognize that they have a finite lifespan and that, at some operational point, they must be replaced. Continued use of dock boards and dock plates which show demonstrative signs of fatigue is extremely imprudent from both a safety point of view as well as an economic point of view. The cost of equipment replacement will always be significantly less than the total "cost" of an accident, especially when it can knowingly be avoided. What becomes imperative then is your ability to identify the signs and indications of dock board and dock plate fatigue. The good news is that Bluff is here to help you with this important judgment call.

In the world of material science, "fatigue" is the progressive and localized structural damage that occurs when a material is subjected to repeated applications of stress or load, none of which exceeds the material's ultimate tensile strength. In other words, it is not what mechanical load you are carrying over your board or plate, per se, it is the accumulation of recurring use or stress which results in dysfunction. The metal, whether it is aluminum or steel, experiences fatigue or failure after a certain number of cycles, or uses which exceed its rating. The result is degradation or dysfunction of the product. Specific to dock boards and dock plates, the rectangles of steel or aluminum begin to change shape or bend/warp as a result of fatigue. As the shape of the plate changes, the auxiliary structures begin to be affected. Curb separation or detachment may occur on welded dock boards and dock plates, or bolts may dislodge on locking legs of dock plates. Stress fractures, microscopic at the beginning of fatigue, may appear on the plates and boards along the lines of maximum stress. Fortunately, most of these signs can be visualized and appreciated upon close inspection of the equipment.

There are, of course, very specific ways to delay the inevitable need to replace your dock boards and dock plates. The easiest mechanism to prolong the life of your dock equipment is to make certain that your equipment is suitable for the work that it will perform, that your projected workload is congruent with the required capacity rating of your equipment. This workload includes not only the weight bearing capacity of the dock board or dock plate, but also the frequency of usage. Keeping in mind that material "fatigue" is progressive and cumulative; the frequency of dock board/plate usage becomes a critical factor in selecting the appropriate equipment. For exceptionally high frequency use such as a three shift, 7/52 operation, Bluff

strongly recommends bumping up the product selection specs to the next capacity level. This expands the range of stress and reduces the likelihood of premature fatigue and equipment failure.

Sad but true, like all wonderful things in life, Bluff dock boards and dock plates do not last forever. As a result, it is extremely important for both the distributors of Bluff dock boards and dock plates as well as the end users to be knowledgeable as to the signs and indications of equipment fatigue. At the very first hint of stress cracks, curb or bolt detachment, board warping or any kind of equipment deformation, every precaution must be made to expedite the replacement of that equipment. The projected incremental cost savings of prolonging the usage life of a fatigued dock board or a dock plate will certainly pale in comparison with the actual and very real cost of equipment failure. At Bluff Manufacturing we take every possible measure to ensure the safety, longevity and productivity of our products when we put them in your hands. Take the initiative to continue this effort by regularly inspecting your dock boards and dock plates for any sign of fatigue or pending failure, then replace them immediately. Bluff Manufacturing: "Service You Can Stand On", safety suggestions you should follow.