

# Maximum Load Test Results - Paddlers Rack

independant lab tests performed by Anamet, Inc. ([www.anametinc.com](http://www.anametinc.com))

U.S. Rack, Inc., 1-888-877-2257 (1-888-usracks)

## Tests prove our Truck Racks beat the standard!

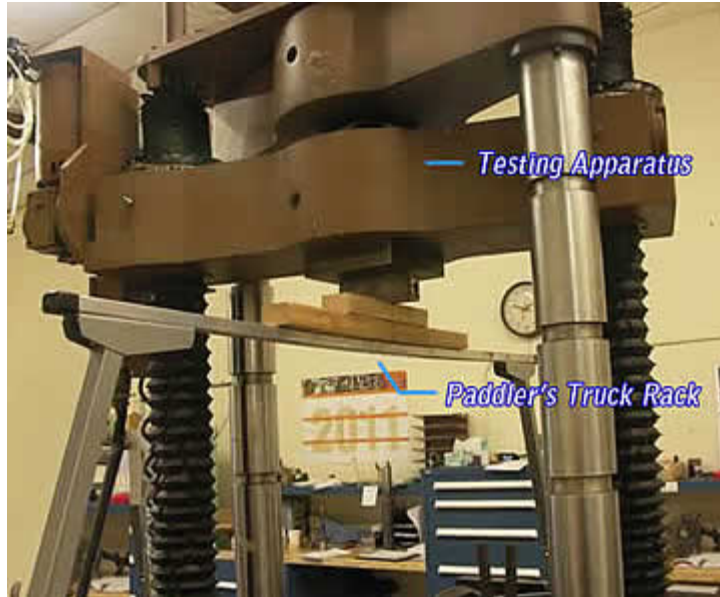
**TEST APPARATUS AT ANAMET LABORATORIES IN HAYWARD, CA TESTING THE PADDLER'S TRUCK RACK**

**The Paddler's Truck Rack shown here in the load testing apparatus vastly exceeded standard**

**The PADDLER'S TRUCK RACK, manufactured by U.S. Rack:**  
Load Rating for one section of this rack is **150 lbs.**

Actual tested material failure point was about **960 lbs.**, over a 6 to 1 safety margin.

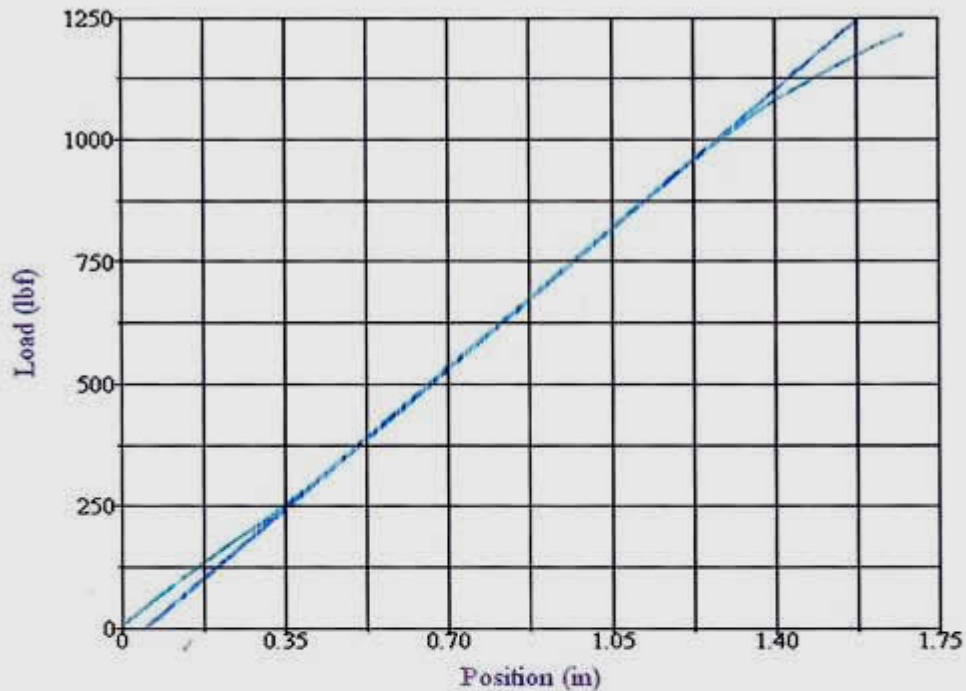
*Read details below*



Truck racks are usually tested through static load testing. A commonly accepted industry standard is that any pickup rack should be able to withstand a static load that is at least 3 times the rated load they are assigned. This provides a 3 to 1 safety margin.

U.S. Rack pickup truck racks all exceed this standard and are tested at the Hayward, California facilities of Anamet, Inc. a respected independent materials testing laboratory. Each pickup rack is tested in a machine that simultaneously measures vertical load applied to the rack as well as material deflection (bending). Since all materials bend a tiny amount when even the slightest load is applied, it is possible to measure the maximum strength of materials by measuring load and deflection.

In the graph below, the curved line represents the actual deflection of the rack as the load is increased. The straight line represents the theoretical deflection of the material. The upper point where the straight line and curved lines diverge is called the "limit of elastic deflection". Beyond this point the material will fail and the rack will be permanently bent. Anamet labs provided the below data.

**Test Summary**

Counter: 8899  
 Elapsed Time: 00:03:21  
 Anamet Job Number: 5004.5799  
 Specimen Identification: 9B  
 Operator: eaf/bck  
 Comments: 24"  
 Procedure Name: Compression Load  
 Start Date: 4/20/2011  
 Start Time: 1:50:48 PM  
 End Date: 4/20/2011  
 End Time: 1:54:09 PM  
 Workstation: MECH  
 Tested By: Brian  
 Customer: U.S. Rack

**Test Results**

Load at Peak Load: 1216.7550 lbf  
 Position at Peak Load: 1.6722 in  
 Halt of Force Yield: Failed  
 Young's Modulus: 816.4505 lbf / in  
 Load at Offset: 959.7918 lbf

***WARNING: This data is provided for information only. DO NOT ASSUME BECAUSE LABORATORY TEST RESULTS INDICATE THIS PRODUCT WILL CARRY MORE THAN THE LOAD LIMIT THAT YOU CAN SAFELY EXCEED THIS LIMIT IN ACTUAL USE. STATIC LOADS ARE NOT THE SAME AS THE DYNAMIC LOADS OCCURING DURING USE. OTHER FACTORS, INCLUDING ADDITIONAL LOADING CAUSED BY BRAKING, ACCELERATING, TURNING AND TRAVELING ON SLOPED OR BUMPY SURFACES AMPLIFY FORCES IN ALL DIRECTIONS AND CAN LEAD TO MATERIAL FATIGUE OR FAILURE OF THE RACK OR THE TRUCK BED IF PUBLISHED LOAD LIMITS ARE EXCEEDED. DO NOT EXCEED LOAD RATING***



**SLIGHTLY BENT PADDLER'S RACK SHOWN AFTER THE TEST AT OVER 900 lbs.**