

Test Report, Danish Alu Mast
June 2007

After the first preliminary tests in autumn 2006 the mast was unrigged and checked for structural deformations. The mast had been racing for 2 regattas; one in light conditions and one in heavy conditions. Furthermore the mast had been sailing about 10 smaller tests.

There were no visible changes in the structure of the mast. The only point we found was a minor dent at the mast foot. The mast foot is made in aluminium and we have reported to the manufacturer, John Mast Demark that it might be necessary to inlay a sheet of stainless steel in the mast foot where the mast is supported. Or maybe to construct the whole mast foot in stainless steel as we know it from the wooden mast.

We have also had some minor comments to the way some of the fittings are made on the test mast.

In April 2007 the mast was rigged again at the Danish boat DEN 1041, a fibreglass boat built in 1990 by Folkebådscentralen.

The boat has been racing with the alu mast at weekly evening matches and at two Danish rank races. Furthermore there have been some training and test of sail design.

There have been ups and downs!

It has been difficult to find the right trim for different conditions. The tension of the shrouds is critical for the performance of the alu mast as well as we know it from the wooden mast.

We have also made some adjustments in the set-up when sailing in medium to heavy conditions. The alu mast is stiffer in the top and therefore we may work more with the backstay.

We have been using sails which are close to a standard set of sails. The mainsail has been modified to fit the curve of the alu mast. North Sails Denmark is helping in this matter.

Until now we have good experience with the mast. The boat has been cooperating well with the alu mast.

There is still something to learn about the trim to get the last 1.5% top speed in all conditions. We have seen that the mast can be in the top of the fleet when it is in perfect trim. However, we have also had races where there was space for improvement!

But so far, we believe that the performance of the mast can be compared to a wooden mast when we are learning to trim the mast better in all conditions.

During autumn 2007 the mast will be rigged on the Danish boat DEN 782 and we hope to collect more experience with the mast.

Danish Test Group
Per Jørgensen