

ENGINEERING AIDS FOR EXPERIMENTS AND MEASUREMENTS

INSTRUMENTATION TO MEASURE TORPEDO TUBE PARAMETERS

The Krylov Institute has designed and fabricated two sets of instrumentation for measuring torpedo tube parameters. Instruments allow to measure pressure in the launcher, torpedo tube speed and movement,



Torpedo tube equipment



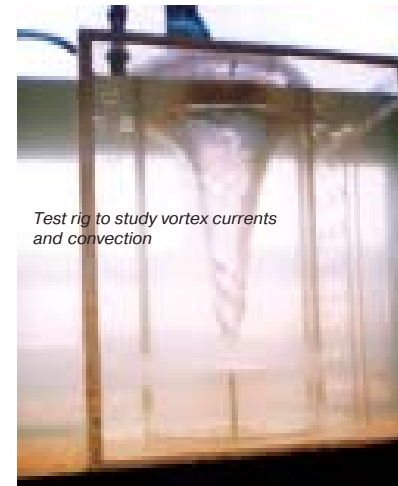
the time of special valve open position. It may be used at multiple firing from six torpedo tubes. Measurement results are shown on a visual display unit and can be printed in the tabulated form showing dependence of pressure and speed from the torpedo route.



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TEST RIG TO STUDY VORTEX CURRENTS AND CONVECTION PROCESSES

The Krylov Institute has developed, manufactured and commissioned a test rig to simulate and study the vortex generation processes in solutions using inductors of different shape (disc, screw, ball, etc.).



Test rig to study vortex currents and convection

Basic technical characteristics	
Induction coil speed of rotation, maximum, rpm	3000
Induction coil diameter, max, mm	250
Solution flow through a circular slot 2 mm in height, max. cm/s	10
Model tank capacity, liters	370
Test rig dimensions, mm	654 x 1035 x 1600
Weight, max, kg	250

AUTOMATIC COORDINATE DEVICE FOR PROBE CONTROL

An automatic coordinate device for probe control has been developed, manufactured and commissioned. The automatic coordinate device shifts the movable part of the temperature detector in accordance with specified program during measuring of gas temperature fields and pressures along the channel height prior to the gas turbine.



Automatic coordinate device

Basic technical characteristics	
Value of complete vertical shift for the probe mobile part, mm	250
Speed of the probe mobile part vertical shift, mm/s	1-3
Absolute error of probe stops in pre-set coordinate, mm, max.	1