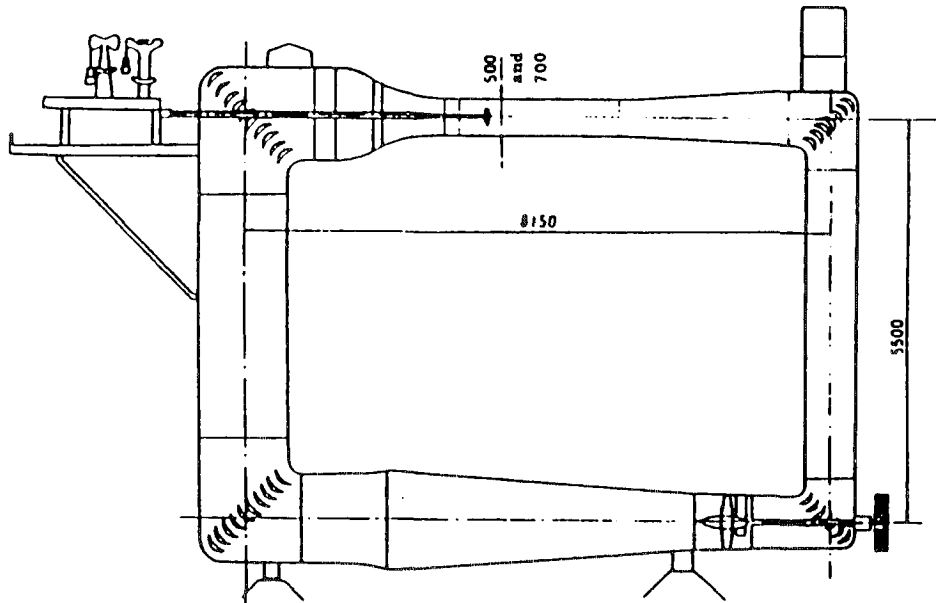


INTERNATIONAL TOWING TANK CONFERENCE CATALOGUE OF FACILITIES
TOWING TANKS, SEAKEEPING AND MANOEUVRING BASINS

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JAPAN

CAVITATION TUNNEL (1960)



DESCRIPTION OF FACILITY: Kempf & Remmers, vert. plane, closed recirc.
TYPE OF DRIVE SYSTEM : 4-bladed axial flow impeller with static-Leonard control.
TOTAL MOTOR POWER: 50 kw, 1500 rpm.
WORKING SECTION MAX. VELOCITY: 11 m/s.
MAX. & MIN, ABS. PRESSURES: 150 kPa, 10 kPa.
CAVITATION NUMBER RANGE: $\sigma=0.2$ to atm.

INSTRUMENTATION: 2 types of propeller dynamometers, 3-component balance, pitot rake, multichannel data acquisition system, various pressure sensors hydrophones, high speed photographic system

TYPE AND LOCATION OF

TORQUE & THRUST DYNAM: Axial shaft dynamometer, pendulum type, load cell.
T range: ± 1180 N, Q range: ± 49 Nm
Inclined shaft dynamometer, strain gauge type
T range: ± 1000 N, Q range: ± 55 Nm

TEST PERFORMED: (1) propeller tests in axial, oblique and simulated wake flows.
(2) contrarotating propellers tests.
(3) propeller-induced pressure fluctuations and noise measurements
(4) propeller erosion test
(5) forces and pressure distributions on rudders, fins, hydrofoils, submerged bodies, etc.

PUBLISHED DESCRIPTION: FUNENO KAGAKU; Vol.13, No.6 (1960)
14th ITTC (1975)
Mitsubishi Juko Giho, Vol.14, No.1 (1977)