NAGASAKI EXPERIMENTAL TANK, JAPAN
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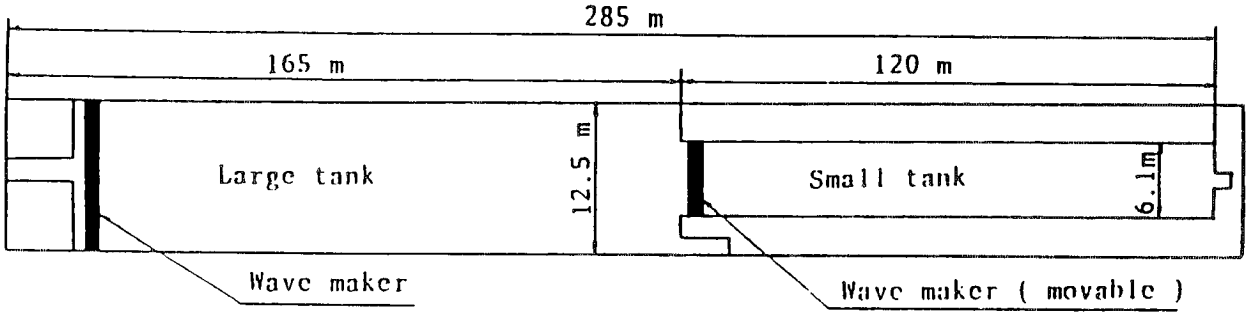
LARGE TOWING TANK (1943)



DESCRIPTION OF CARRIAGE: 1 manned, motor driven, digital control.
TYPE OF DRIVE SYSTEM AND TOTAL POWER: Thyrister static Leonard system, 75 kw x 4.
MAXIMUM CARRIAGE SPEED: 5 m/s.
OTHER CAPABILITIES: maximum speed of 10 m/s can be achieved by using whole length of small and large towing tank connected longitudinally.

WAVE GENERATION CAPABILITY: regular and irregular ; period 0.6 2.8 sec (length 0.5 ~ 12m), max. wave height 0.4 m.
WAVEMAKER TYPE AND EXTENT: flap type, motor driven, 12.4 m wide.
BEACH TYPE AND LENGTH: 4 rugged panels on circular arc, 5 m.
WAVE MEASUREMENT: electric resistance type probes on carriage and tank walls.

INSTRUMENTATION: minicomputer on carriage for data acquisition and on-line analysis. 32 analog and 6 digital channels, maximum sampling speed up to 100 kHz for analog channel.
MODEL SIZE RANGE: ship length from 2 to 10 m (standard 7 m). max. propeller diameter 500 mm.
MODEL TRACKING TECHNIQUES: propeller rpm adjusted automatically, relative model position measured by rotary encoder.
TESTS PERFORMED: (1) resistance and self-propulsion tests in calm water and regular waves
(2) wake survey tests
(3) flow measurements around ship
(4) wave pattern measurement
(5) propeller open-water tests

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Mitsubishi Juko Giho, Vol.14, No.1 (1977)
Mitsubishi Juko Giho, Vol.20, No.1 (1985)