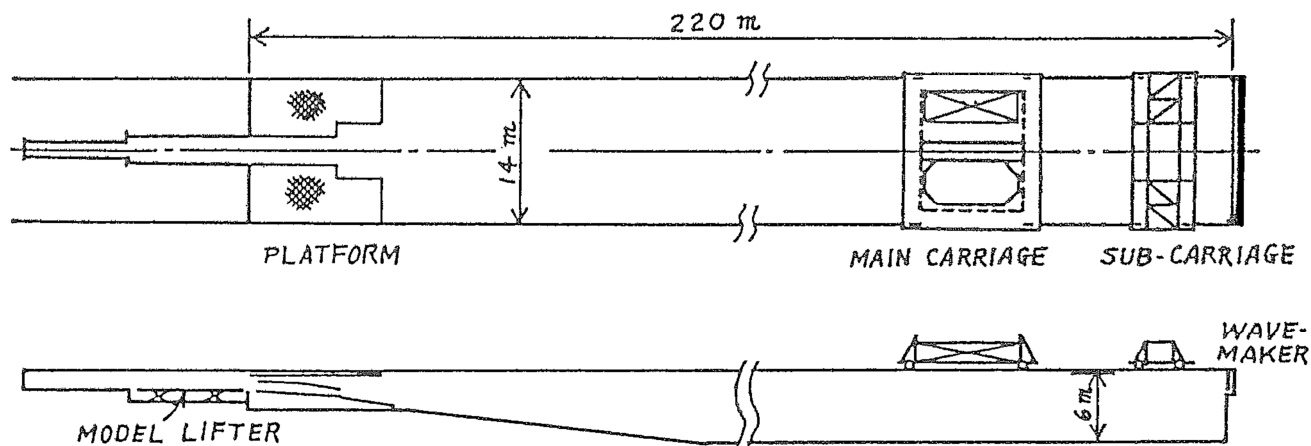


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JAPAN

LARGE TOWING TANK (1978)



DESCRIPTION OF CARRIAGES: 1 manned, motor driven

TYPE OF DRIVE SYSTEM AND TOTAL POWER: Thyristor Leonard with digital differential analyzer, 220 kW

MAXIMUM CARRIAGE SPEED: 7 m/s

OTHER CAPABILITIES: PMM test can be performed, connecting sub-carriage

WAVE GENERATION CAPABILITY: regular and irregular, slope: over 1/20 ($0.4\text{m} \leq \lambda \leq 5\text{m}$),
over 1/50 ($5\text{m} \leq \lambda \leq 15\text{m}$)

WAVEMAKER TYPE AND EXTENT: hydraulic driven flap type, 14 m wide

BEACH TYPE AND LENGTH: 2 layers of corrugated panels, 12.6 m

WAVE MEASUREMENT: ultrasonic and capacity type probes on carriage and tank wall

INSTRUMENTATION: minicomputer on carriage for operation of carriage and data acquisition and processing
resistance and self-propulsion dynamometer, PMM

MODEL SIZE RANGE: ship lengths from 7 to 9 m
offshore structures up to 5 m in breadth

SELF-PROPULSION TECHNIQUES: propeller rpm is adjusted automatically until thrust deviation is reduced to zero

TEST PERFORMED: resistance & self-propulsion in calm water & waves, open water propeller tests, 3-D wake surveys
manoeuvring & seakeeping performance tests of ships and offshore structures

PUBLISHED DESCRIPTION: published in Mitsui Tech. Review in 1980