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1.

|                    | 3.11 MISCELLANEOUS CONVENTIONAL PROPELLER GEOMETRY<br>TERMINOLOGYREFERENCES AND FURTHER READING; Chapter4 - The<br>Propeller Environment; 4.1 DENSITY OF WATER; 4.2 SALINITY; 4.3<br>WATER TEMPERATURE; 4.4 VISCOSITY; 4.5 VAPOR PRESSURE; 4.6<br>DISSOLVED GASES IN SEA WATER; 4.7 SURFACE TENSION; 4.8 WEATHER;<br>4.9 SILT AND MARINE ORGANISMS; REFERENCES AND FURTHER<br>READING; Chapter5 - The Ship Wake Field; 5.1 GENERAL WAKE FIELD<br>CHARACTERISTICS; 5.2 WAKE FIELD DEFINITION; 5.3 THE NOMINAL<br>WAKE FIELD; 5.4 ESTIMATION OF WAKE FIELD PARAMETERS; 5.5<br>EFFECTIVE WAKE FIELD; 5.6 WAKE FIELD SCALING<br>5.7 WAKE QUALITY ASSESSMENT5.8 WAKE FIELD MEASUREMENT;<br>REFERENCES AND FURTHER READING; Chapter6 - Propeller Performance<br>Characteristics; 6.1 GENERAL OPEN WATER CHARACTERISTICS; 6.2 THE<br>EFFECT OF CAVITATION ON OPEN WATER CHARACTERISTICS; 6.3<br>PROPELLER SCALE EFFECTS; 6.4 SPECIFIC PROPELLER OPEN WATER<br>CHARACTERISTICS; 6.5 STANDARD SERIES DATA; 6.6 MULTI-<br>QUADRANT SERIES DATA; 6.7 SLIPSTREAM CONTRACTION AND FLOW<br>VELOCITIES IN THE WAKE; 6.8 BEHIND-HULL PROPELLER<br>CHARACTERISTICS; 6.9 PROPELLER VENTILATION; REFERENCES AND<br>FURTHER READING; Chapter7 - Theoretical Methods - Basic Concepts<br>7.1 BASIC AEROFOIL SECTION CHARACTERISTICS7.2 VORTEX FILAMENTS<br>AND SHEETS; 7.3 FIELD POINT VELOCITIES; 7.4 THE KUTTA CONDITION;<br>7.5 THE STARTING VORTEX; 7.6 THIN AEROFOIL THEORY; 7.7 PRESSURE<br>DISTRIBUTION CALCULATIONS; 7.8 BOUNDARY LAYER GROWTH OVER<br>AN AEROFOIL; 7.9 THE FINITE WING; 7.10 MODELS OF PROPELLER<br>ACTION; 7.11 SOURCE AND VORTEX PANEL METHODS; 7.12 EULER,<br>LAGRANGIAN AND NAVIER-STOKES METHODS; REFERENCES AND<br>FURTHER READING; Chapter8 - Theoretical and Analytical Methods<br>Relating to Propeller Action; 8.1 MOMENTUM THEORY - RANKINE<br>(1865); R.E. FROUDE (1887)<br>8.2 BLADE ELEMENT THEORY - W. FROUDE (1878) |
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| Sommario/riassunto | Propulsion technology is a complex, multidisciplinary topic with design,<br>construction, operational and research implications. Bringing together a<br>wealth of disparate information from the field, Marine Propellers and<br>Propulsion provides comprehensive and cutting edge coverage to equip<br>marine engineers, naval architects and anyone involved in propulsion<br>and hydrodynamics with the knowledge needed to do the job.<br>Drawing on experience from a long and varied career in consultancy,<br>research, design and technical investigation, author John Carlton<br>breaks the subject into t  |